

Equals Math

ACTION DICTIONARY

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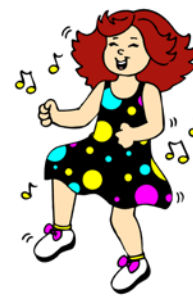
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act it out



EXAMPLE 1



Student states an action by activating a speech generating device.

INSTRUCTOR: Record action name on the Step-by-Step and attach matching pic-symbol while student watches. Allow student time to practice. Repeat each time message is changed to another action.

STUDENT: Student says the name of the action for students to perform by pressing the matching pic-symbol on the Step-by-Step.

EXAMPLE 2

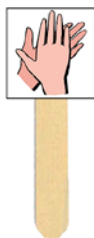


Student uses sound effects to enhance an action.

INSTRUCTOR: Record sound effects on the iTalk2 and attach matching pic-symbols. Allow student to practice and become familiar with the choices.

STUDENT: Student uses sound effects by selecting and pressing the matching pic-symbol on the iTalk2 to enhance another student's action.

EXAMPLE 3



Student shows an action as depicted in a photo or pic-symbol.

INSTRUCTOR: Laminate photo, pic-symbols, or song cards of each action and fasten each to a craft stick with tape. Fasten hook and loop material placing soft side on stick and rough side on glove. Place glove on student's hand. Fasten stick to glove.

STUDENT: Student holds the craft sticks or wears gloves with photo, pic-symbols, or song cards. Student moves the appropriate image to match the action.

EXAMPLE 4



Student shows an action with a prop or toy.

INSTRUCTOR: Provide an appropriate prop or toy for the student for each action in a book or song.

STUDENT: Student holds or moves prop for an action in a book or song. Student moves prop to perform action from book or song.

EXAMPLE 5



Student uses hands to imitate actions with feet.

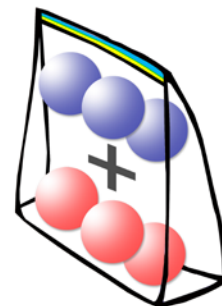
INSTRUCTOR: Provide new shoes or sandals and place on student's hands.

STUDENT: Student uses shoes/sandals on hands to jump or stomp on top of table or lap tray.

Play Video

Play Video

add



Play Video

EXAMPLE 1



Student sweeps objects to add.

INSTRUCTOR: Place first set of counters on counting tray and count aloud as student sweeps one at a time. Repeat with the second set. Record numbers for counting total on Step-by-Step and point as student counts the total.

STUDENT: Student sweeps each set one at a time. Student counts with Step-by-Step as instructor points to each object for the total. Student stops when objects run out.

Play Video

EXAMPLE 2



Student adds by sliding tabs or tabs with objects on MathLine.

INSTRUCTOR: Point to equation and count aloud as student moves tabs. (Make sure tabs are all moved to the right to start.)

STUDENT: Student slides tabs to left one at a time for each number and identifies total on MathLine to match to answer choices.

Option: Fasten objects to tabs, taking care not to cover numbers or interfere with tabs.

Option: Student activates Step-by-Step to count as instructor moves tabs and stops when instructor stops.

Record numbers on Step-by-Step for student to count as instructor moves tabs.

Student moves each tab and activates Step-by-Step to count.

EXAMPLE 3



Student adds with Step-by-Step by counting as the instructor moves objects.

INSTRUCTOR: Record counting sequence from 1 to the end amount plus the next number on Step-by-Step communicator. Point to each object in first amount then point to each object in second amount, then point to each object for the total as student counts. Allow time for student to practice the number sequence.

STUDENT: Student counts with Step-by-Step as instructor points to each object in each set, then the total amount of objects. Student stops when objects run out.

EXAMPLE 4



Student locates numerals/symbols from equation and enters on calculator.

INSTRUCTOR: Cut out small square or rectangle windows from paper and fasten onto the space around the numerals and symbols from the equation onto the calculator with sticky tac, e.g. $8 + 3$.

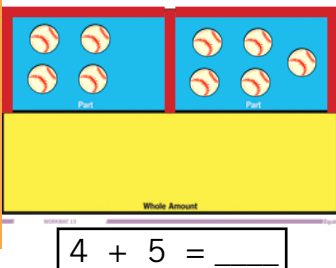
STUDENT: Student chooses the correct numeral or symbol in the order presented in the equation and presses each button, then = on the calculator.

Option: use wax-coated yarn sticks to frame the numerals/symbols.

Option: color code the numerals/symbols in the equation to match colored windows or yarn sticks.

Play Video

EXAMPLE 5



Student adds objects on a modified workmat.

INSTRUCTOR: Attach wax-coated yarn sticks or Ang-Legs to Workmat 13 (part, part, whole) to provide student with a tactile workmat.

STUDENT: Student uses the tactile clues to organize manipulatives on the workmat and add.



EXAMPLE 1



Student uses the Step-by-Step communicator to answer questions.

INSTRUCTOR: Record a sequence of answers or information on Step-by-Step while student watches. Allow time for student to practice and become familiar with the choices. Show student how to stop right after answer choice is heard.

STUDENT: Student activates the Step-by-Step by pressing down on the top surface to provide answer(s) to the instructor's question(s), cycling through and stopping right after the answer chosen.

EXAMPLE 2

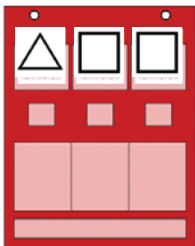


Student answers one or more question with SuperTalker.

INSTRUCTOR: Place pic-symbols representing answer choices on the SuperTalker and record an answer for each pic-symbol as student watches. Provide time for student to practice.

STUDENT: Student selects and activates a message to give the answer.

EXAMPLE 3



Student answers by choosing from a set of answer choices on display.

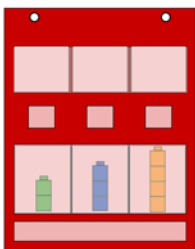
INSTRUCTOR: Place pic-symbols representing answer choices (two correct, one foil) on a display tool, pocket chart, or an eye gaze communication board.

STUDENT: Student points to, grasps, or eye gazes at a pic-symbol representation of the answer, from the selection of pic-symbols on display.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 4



Student answers by choosing an amount from a display.

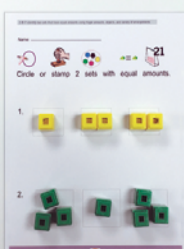
INSTRUCTOR: Place amount choices in a row on table or in pocket chart for display.

STUDENT: Student points to, grasps, or eye gazes at object from the selection on display.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 5



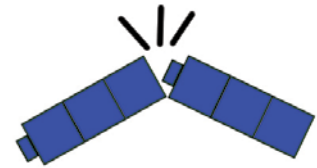
Student answers questions on a worksheet with manipulatives.

INSTRUCTOR: Provide manipulative representations of pic-symbol objects on the worksheet, e.g. turtle counters for turtles, attribute blocks for shapes, etc.

STUDENT: Student places manipulatives to show answer on the worksheet in a concrete representation.

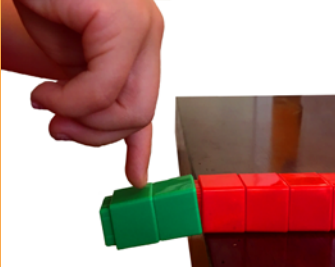
Option: If matching manipulatives cannot be found, provide student with a thoughtful substitution, e.g. yellow connecting cubes for lemons, green connecting cubes for turtles, etc.

break



Play Video

EXAMPLE 1



Student uses leverage to break apart connecting cubes or Ang-Legs.

INSTRUCTOR: Fasten connecting cube rod on the edge of table or tray with an amount of cubes extended over edge (or hold down the portion on the table).

STUDENT: Student pushes down on part hanging off edge to break the rod into parts.

Note: Ang-Legs need to be placed end-connector face down and close to edge, with finger pressing down close to edge.

EXAMPLE 2



Student says amount to break off of cube rod with Step-by-Step.

INSTRUCTOR: Record number sequence on the Step-by-Step communicator. Allow time for student to practice counting and stopping.

STUDENT: Student activates Step-by-Step and stops to indicate how many cubes to break off the rod.

Play Video

EXAMPLE 3



Student breaks connecting cube rod placed at edge of book or binder.

INSTRUCTOR: Place a book or binder on the student's desk or lap tray. Lean the connecting cube rod on the book.

STUDENT: Student presses down on the middle of the connecting cube rod to break it.

Play Video

EXAMPLE 4



Student uses a tactile cue to find the break point of a connecting cube rod.

INSTRUCTOR: Place a wax-coated yarn stick at the break point for student.

STUDENT: Student feels the connecting cube rod to find where the break point is.

Option: ask student how many to break before placing the wax-coated yarn on the connecting cube rod.

Option: student states how many to break off the rod or places wax coated yarn stick at break point.

Play Video

EXAMPLE 5



Student breaks connecting cube rod fastened to table.

INSTRUCTOR: Fasten soft side of hook and loop material on connecting cube rod at break point and fastens rough side on desk.

STUDENT: Student presses the connecting cube rod onto the hook and loop material on the desk, then pulls or bends the connecting cube rod to break it.

bring



EXAMPLE 1

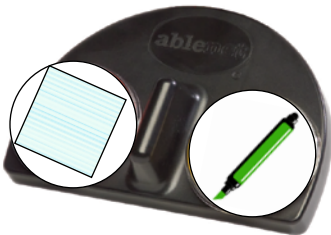


Student asks others to bring an object with Step-by-Step.

INSTRUCTOR: Record a sequence of directions for retrieving an object for a student on the Step-by-Step communicator. Allow time for students to review the steps and to practice by activating for each step.

STUDENT: Student activates the Step-by-Step communicator multiple times to request an object and direct a staff person or student helper in how to locate it.

EXAMPLE 2



Student ask others to bring an object with iTalk2.

INSTRUCTOR: Record the names of two different objects on the iTalk2 communicator, and place representative symbols on each message location. Allow student time to practice saying each name.

STUDENT: Student activates the iTalk2 communicator to ask a helper to bring one of the objects (or both).

EXAMPLE 3



Student brings an object placed in a backpack.

INSTRUCTOR: Place a backpack on the student.

STUDENT: Student carries the backpack, moves to the place to get the object, places (or requests) the object in the backpack (or helper places it), and moves back to desired location.

EXAMPLE 4



Student uses container placed on lap, wheelchair tray, or attached to walker.

INSTRUCTOR: In consultation with Occupational and/or Physical Therapist, attach a backpack, basket, or container to walker or wheelchair. It is important to consult with OT/PT as the addition of objects to a walker or wheelchair changes the center of gravity.

STUDENT: Student brings objects to designated location that were placed on lap tray or attached container/backpack.

EXAMPLE 5



Student uses an auditory cue to bring an object to a destination.

INSTRUCTOR: Record destination name on a Step-by-Step. Demonstrate and allow student time to practice. Instructor or student activates the Step-by-Step to provide the auditory cue.

STUDENT: Student follows the auditory cue to bring the object to a designated destination.

call



EXAMPLE 1

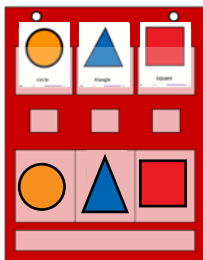


Student calls shapes with a multiple message communicator to play game.

INSTRUCTOR: Record shape names to the QuickTalker communicator; repeat the name for effect. Allow time for student to watch recording and demo, then give time for practice.

STUDENT: Student activates the QuickTalker to call shape names for the class to play Bingo or other game.

EXAMPLE 2



Student calls in a game by indicating a choice of pic-symbols/cards/objects.

INSTRUCTOR: Place three pic-symbols in the pocket chart. State or show the student's choice.

STUDENT: Student uses eye gaze, touches, points, or verbally selects a pic-symbol to call the shape.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

Option: provide objects in place of or with matching pic-symbols

EXAMPLE 3



Student uses a dry erase board to call Bingo numbers.

INSTRUCTOR: Provide a dry erase board, marker, and eraser to student.

STUDENT: Student writes a numeral or draws a picture of a shape to call.

Option: assist student with writing or drawing.

Option: student places wax-coated yarn stick pieces to make numeral or shape, or presses down partially placed pieces.

Provide wax-coated yarn sticks to make number, shape, etc. for Bingo.

Provide magnet numbers on metal surface to show.

Student shows magnet numbers to call.

EXAMPLE 4



Student uses a Step-by-Step Gameplay to call randomly in a game.

INSTRUCTOR: Record shapes, colors, Bingo numerals, etc. on the Step-by-Step Gameplay as appropriate to the game. Demonstrate for student and allow time for practice.

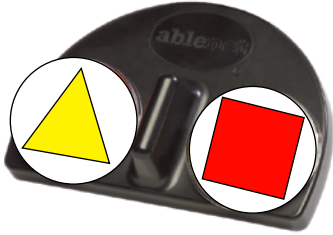
STUDENT: Student activates the Step-by-Step Gameplay to call randomly.

Option: place the Gameplay in Random Elimination mode so each name won't be called twice.

chant



EXAMPLE 1



Student activates iTalk2 communicator to play a pattern or rhythm.

INSTRUCTOR: Record sound pattern part on each button of an iTalk2 communicator, e.g. triangle on the left button and square on the right. Fasten matching pic-symbols or photos to each button. Possible patterns are AB, ABB, or AAB. Demonstrate and allow time for practice.

Option: record word on one button and a clap on the other.

STUDENT: Student activates the iTalk2 to imitate or read a sound pattern or describe it.

Option: student activates to say a word or phrase or make clap sound during a chant or rap.

EXAMPLE 2



Student claps or chants by activating a Step-by-Step communicator.

INSTRUCTOR: Record a series of claps, words, and/or phrases. Show student and allow time for practice.

Option: word or phrase can be paired with a clap as it is recorded.

STUDENT: Student activates the Step-by-Step communicator to clap/chant by taking turns or joining in.

EXAMPLE 3



Student chants by holding up a card that represents a portion of the chant.

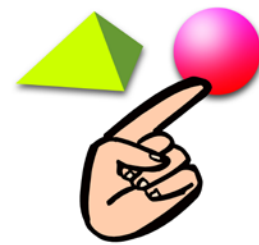
INSTRUCTOR: Provide a card with word, phrase, or image for the student to chant.

Option: fasten card to ruler or craft stick. Fasten soft side hook and loop material to card or craft stick and rough side to a glove. Place on student's hand. Fasten card or stick to glove.

STUDENT: Student waves the card to chant with the class.

Option: student holds stick with hand or card/stick with glove to wave the word, phrase, or picture

choose (1 of 2)



EXAMPLE 1

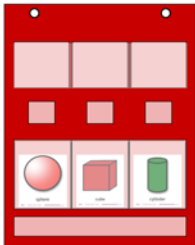


Student makes a random choice with the All-Turn-It spinner.

INSTRUCTOR: Flip overlay on All-Turn-It spinner to white side. Divide into preferred number of spaces by fastening Ang-Leg borders. Fasten pic-symbol or object choice in each space. Give student the object chosen by random spin.

STUDENT: Student activates orange button or attached switch to spin for a choice.

EXAMPLE 2



Student makes a choice from objects, pic-symbols, or cards placed in a row.

INSTRUCTOR: Place three pic-symbol or object choices in pocket chart.

STUDENT: Student takes, touches, or eye gazes to choose.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 3



Student chooses object, pic-symbol, or card and moves to container.

INSTRUCTOR: Place objects on table or lap tray and fasten or hold container just below the surface edge.

STUDENT: Student sweeps or moves objects into container.

EXAMPLE 4



Student makes a choice by activating the SuperTalker.

INSTRUCTOR: Place pic-symbol choices and record each on SuperTalker as student watches. Allow time for student to practice.

STUDENT: Student selects and activates a message location to make a choice.

EXAMPLE 5

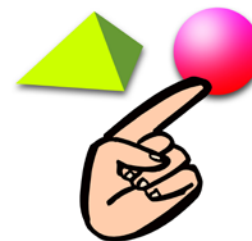


Student chooses by using TalkingBrix and drop zones.

INSTRUCTOR: Provide an object or set for the student to choose in each of three drop zones (use construction paper, bowl, tray, etc. as defined locations). Record "This one." on one TalkingBrix and place near student. Show student how to activate the TalkingBrix and allow time for practice.

STUDENT: Student considers each option, then places and activates the TalkingBrix at or in the preferred drop zone to make a choice.

choose (2 of 2)



EXAMPLE 6

Student uses a handle to choose a card.

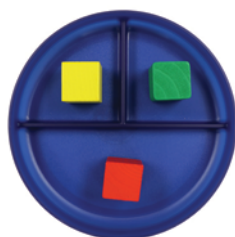


INSTRUCTOR: Fasten cards from game to craft sticks.

STUDENT: Student uses the craft stick handle to choose a card.

EXAMPLE 7

Student chooses using a tray with different compartments.



INSTRUCTOR: Provide student with a tray or dish with different compartments. Place a different manipulative or set in each compartment.

STUDENT: Student chooses from the compartments.

clean up



Play Video

EXAMPLE 1



Student sweeps or moves objects into a container.

INSTRUCTOR: Position objects to be placed in container on table or lap tray. Fasten or hold container just below the surface edge.

STUDENT: Student sweeps or moves objects into container from table or lap tray.

EXAMPLE 2



Student gives directions to peers to clean up an area.

INSTRUCTOR: Record "Time to clean up" or similar direction on BIGmack and label it with matching pic-symbol as student watches. Allow student time to practice.

STUDENT: Student activates BIGmack communication device to direct peers to clean up.

EXAMPLE 3

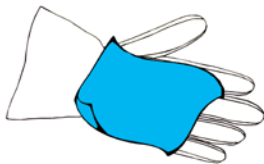


Student gives steps to complete a cleaning task.

INSTRUCTOR: Record steps on Step-by-Step to clean a specific area, e.g. "1. Make the cloth wet." "2. Wipe off the table." "3. Dry the table." Provide cloth for cleaning. Allow student time to practice saying the steps.

STUDENT: Student activates Step-by-Step to give each direction to peer as each step is completed.

EXAMPLE 4



Student wipes table with cloth fastened to glove and dries an area with fan.

INSTRUCTOR: Fasten rough side hook and loop material to large work glove and soft side to a cloth. Assist student in putting on the glove and attaching cloth; make the cloth wet, if needed. Assist student in moving cloth across table as needed.

STUDENT: Student moves glove across the table to wipe it or dry it. Student activates switch and fan to blow a table dry.

Option: Connect switch and fan to PowerLink for student to dry a table.

EXAMPLE 5

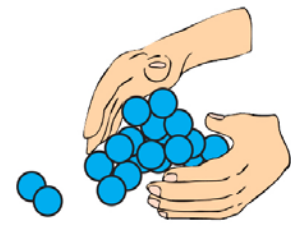


Student moves objects to a designated space to clean up.

INSTRUCTOR: Place a sorting circle, Ang-Legs, or construction paper to create a destination for the student. Record an auditory cue on a Step-by-Step communicator so the student knows where to bring the object. Instructor or another student activates the Step-by-Step to provide the auditory cue.

STUDENT: Student follows the auditory cue to place the object(s) in the designated area to clean up.

collect



EXAMPLE 1

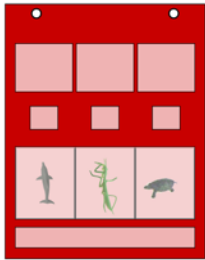


Student asks for object or set of objects to collect with Step-by-Step.

INSTRUCTOR: Record or program choices in a Step-by-Step communicator to say, "I want...[name of object]." Allow student time to practice.

STUDENT: Student activates Step-by-Step to say, "I want...[name of object]."

EXAMPLE 2



Student chooses object from display to collect into a set.

INSTRUCTOR: Place three object choices in pocket chart, table, or other display.

STUDENT: Student takes, touches or eye gazes to choose.

Option: record "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 3

Play Video



Student sweeps or moves desired object(s) to collect into a container.

INSTRUCTOR: Position objects to be placed in container on table or lap tray. Fasten or hold container just below surface edge.

STUDENT: Student sweeps or moves objects into container.

Option: place one or more objects from a set in plastic zipper bag for easier grasping.

Option: student sweeps or moves bag into container.

EXAMPLE 4

Play Video



Student collects objects in a fixed location.

INSTRUCTOR: Fasten rough hook and loop material to table-top or other surface and fasten soft hook and loop material to objects to be collected. The instructor places objects to be collected mixed with foils.

STUDENT: Student moves desired objects to surface. The correct objects collected will stick to the surface, but the objects that are not included (foils) will not stick.

EXAMPLE 5



Student uses a drop zone to collect objects.

INSTRUCTOR: Place a sorting circle, Ang-Legs, or construction paper to create a destination for the student. Record an auditory cue on a Step-by-Step communicator so other students know where the objects are being collected.

STUDENT: Student activates the Step-by-Step to signal others where to place objects so the student can collect them.

color



EXAMPLE 1



Student names preferred color(s) with iTalk2 communicators.

INSTRUCTOR: Record a color name for each button and fasten matching colors on iTalk2 or QuickTalker 7. Allow student time to practice.

STUDENT: Student activates choice of button to request color.

Option: The instructor places three color choices in pocket chart or other display. If needed, record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: Student takes, touches or eye gazes to choose or student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 2



Student colors with an adapted tool.

INSTRUCTOR: Extend the length of a crayon by fastening sticky tac to the bottom of a crayon and placing it into a piece of narrow PVC pipe.

STUDENT: Student grasps the adapted crayon and uses it to color.

Option: Use connectors to build a T-bar and place crayon in the vertical pipe.

Option: student holds the horizontal T-bar to color.

EXAMPLE 3



Student colors on paper that is secured to a slanted surface.

INSTRUCTOR: Tape paper to slanted surface.

STUDENT: Student colors with or without adapted crayon or marker on the paper.

EXAMPLE 4



Student 'colors' geometric shape parts with stickers or wax-coated yarn.

INSTRUCTOR: Provide student with wax-coated yarn sticks or stickers then name shape part(s) to be colored.

STUDENT: Student places wax-coated yarn sticks or sticker on a face, edge, or vertex on a geometrical figure to color or highlight it.

Note: Give student sticker with back exposed.

EXAMPLE 5

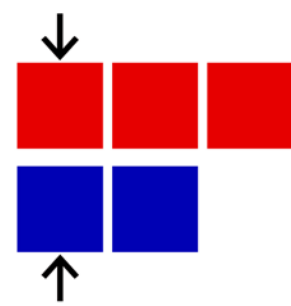


Student colors within wax-coated yarn lines.

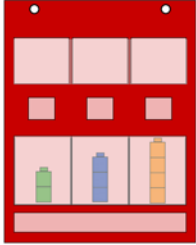
INSTRUCTOR: Fasten wax-coated yarn sticks on the lines of a coloring sheet to create a tactile work/coloring sheet. Provide crayons or markers for student to color.

STUDENT: Student colors using the wax-coated yarn as a guide.

compare (1 of 3)



EXAMPLE 1



Student chooses set with more, less, or equal.

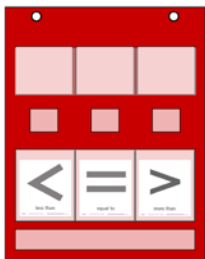
INSTRUCTOR: Place cubes in pocket chart to represent three choices (two correct, one foil) of large, small, and/or equal amounts.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

STUDENT: Student uses eye gaze or touch to choose the amount that is more or less, or choose two amounts that are equal.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 2



Student chooses symbol with more, less and equal to compare.

INSTRUCTOR: Place choices of more, less, and equal pic-symbols in pocket chart.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

STUDENT: Student chooses the symbol to describe comparison of designated sets.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 3



Student compares length of two lines with one ruler.

INSTRUCTOR: Fasten ruler to counting tray and place one line above and one line below to compare. The instructor marks the end of longer line with wax-coated yarn stick and extends it to shorter line for student to compare. The instructor shows choices of more, less, and equal.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

STUDENT: Student chooses more, less, or equal to compare the lines.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 4



Student compares weight with balance scale.

INSTRUCTOR: Give choices (two correct, one foil) of pic-symbols for more, less, and/or equal. Place two weights on either side of scale, point to first weight and ask, "More, less or equal?"

STUDENT: Student chooses more, less or equal to compare the first with the second weight.

EXAMPLE 5



Student uses Ang-Legs to corral and compare manipulative amounts.

INSTRUCTOR: Fasten three parallel Ang-Legs and one perpendicular Ang-Leg across the top on the table to make corrals for manipulatives.

STUDENT: Student uses the Ang-Legs as a visual guide and places two sets of manipulatives in the two spaces between the Ang-Legs to line up and compare.

A diagram showing a 2x3 grid of squares. The top row consists of three red squares. The bottom row consists of two blue squares followed by an empty space. A black arrow points down to the top-left red square, and another black arrow points up to the bottom-left blue square.

A bar graph showing the number of butterflies and bees on each step of a staircase. The steps are numbered 1 to 10. The number of butterflies increases by 1 on each step, starting from 1 on step 1 to 10 on step 10. The number of bees increases by 1 on each step, starting from 1 on step 1 to 10 on step 10. The bars are colored in a repeating pattern of green, blue, and grey.

Option: student chooses same amount of connecting cubes for each set and connects each amount to compare in stacked number line, for example, the student has a set of 3 butterflies and a set of 5 insects. Student matches amounts to connecting cubes, connects them, and places them in stacked number line to compare.

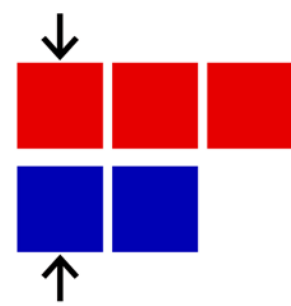
STUDENT: Student places one of the TalkingBrix between two sets to state the comparison and activates it.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

STUDENT: Student activates TalkingBrix to show where to place the object.

*Note: this will not work with wooden cubes.

compare (3 of 3)



EXAMPLE 11



Less

More

Student uses two colors of blocks to compare parts and whole of a set.

INSTRUCTOR: Provide student with blocks of amounts to be compared. Make each part of the set of blocks a different color, e.g. to compare parts 2 and 3 to the whole 5, use 2 red blocks and 3 blue blocks.

STUDENT: Student uses the joined whole and separated parts sets to compare the amounts to show what happens when you separate a set (smaller parts) or join two parts (larger whole).

EXAMPLE 12



Student compares fraction amounts with Fraction Stax.

INSTRUCTOR: Provide student with two fraction amounts to compare. Show how parts make up a whole. Show the number of parts affects the size of the parts, e.g. tenths are smaller than halves, but there are more parts.

STUDENT: Student compares parts to whole and fraction parts to compare fraction parts and amounts.

Option: stick to equivalent fractions to emphasize the relationship between size of parts and number of parts.

EXAMPLE 13



Student compares by feeling one amount in each hand at the same time.

INSTRUCTOR: Provide student with manipulatives to compare amounts.

STUDENT: Student holds each amount in a different hand at the same time to compare.

Optional: can also be used to compare weight.

EXAMPLE 14



Student feels amounts or weight of objects in a bag to compare.

INSTRUCTOR: Provide student with manipulatives in zipper bags to compare amounts.

STUDENT: Student holds each zipper bag in a different hand to compare amounts or weight.

Option: place different sized objects of the same amount in each bag so student can learn about comparing amounts of different sizes which may look different in size, but are the same in amount.
Option: show a small amount of rocks and larger amount of marshmallows to show large size and heavy weight don't always match or vice versa.

EXAMPLE 15



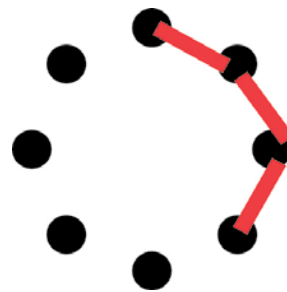
Student uses a custom number line to compare and round amounts.

INSTRUCTOR: Create a basic number line using Ang-Legs, placing range of amounts on sticky notes at each end and the mid-point amount in center, e.g. to round 242 to the nearest hundreds, place 200 at one end, 250 in the middle, and 300 at the other end. Write the numeral to be rounded on a sticky note and fasten to a craft stick.

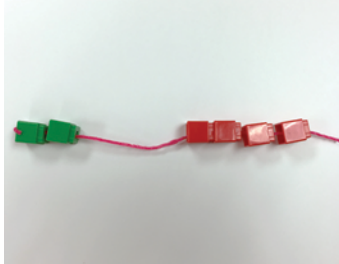
STUDENT: Student looks at the amount to round and decides between which numbers it belongs, e.g. between 200 and 250 or between 250 and 300. Student places number before or after the mid point and rounds the number to the nearest hundred: 200.

Option: fasten a square of dry erasable tape on the craft stick for a multi-use tool.

connect



EXAMPLE 1



Student uses wax-coated yarn or string as a guide to connect cubes.

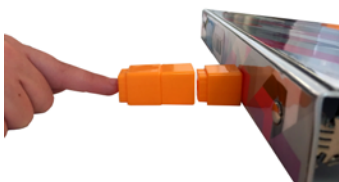
INSTRUCTOR: Insert a wax-coated yarn stick into connecting cube holes (similar to stringing beads) so the string can act as a guide for the student.

STUDENT: Student pushes cubes to be connected, using wax-coated yarn as a guide, to connect the cubes.

Option: for amounts up to five, use a red Ang-Leg in place of the wax-coated yarn. Secure it if necessary. Tip: thread the connecting cubes from the bottom of the cube. The connecting cubes cannot be pushed past the joint between two Ang-Legs.

Option: student uses Ang-Leg as a secure guide in moving and connecting the cubes for amounts up to 5 on the red Ang-Leg.

EXAMPLE 2



Student connects connecting cubes by using a stable object.

INSTRUCTOR: Lay two connecting cube rods to be connected on their side with the bottom of one rod placed next to or fastened to a stable object.

STUDENT: Student joins 2 rods by pushing one rod of connecting cubes against the other secured rod to fully connect them into 1 rod.

EXAMPLE 3

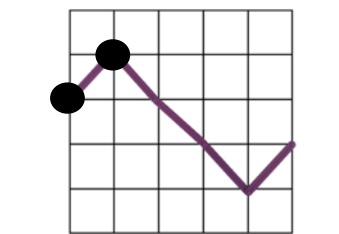


Student connects points on graph with wax-coated yarn sticks.

INSTRUCTOR: Provide student with wax-coated yarn sticks cut or folded to appropriate length.

STUDENT: Student places Ang-Legs or wax-coated yarn sticks to connect points on a graph.

EXAMPLE 4

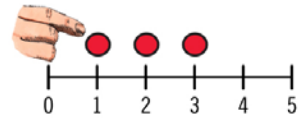


Student connects points on graph with Ang-Legs.

INSTRUCTOR: Place connected purple Ang-Legs on Workmat 4, anchoring first Ang-Leg diagonally across the first square at first data point. Each Ang-Leg connecting point will roughly correspond to a point on the graph. Anchor as needed while student is placing the Ang-Legs. When each connected Ang-Leg is placed, give student 1 large dot sticker at a time to place on each Ang-Leg connecting point.

STUDENT: Student places connected Ang-Legs on data points on Workmat 4 graph and places dot sticker on top of each Ang-Leg connecting point to show graph points.

count (1 of 3)



EXAMPLE 1



Student counts by sweeping objects.

INSTRUCTOR: Place one object at a time on counting tray. Count aloud as student sweeps object to end of tray.

Option: fasten shoe box container at edge of table or fasten to table with open end facing incoming objects

Option: record amount to be counted plus 1 more on Step-by-Step communicator. Place near student.

STUDENT: Student sweeps each object as the instructor counts and stops at the appropriate amount to indicate the number of units.

Option: student sweeps each object into container as instructor counts.

Option: student sweeps each object, then counts it with Step-by-Step communicator.

EXAMPLE 2



Student counts by sliding objects or tabs on the MathLine.

INSTRUCTOR: Fasten objects to MathLine with rough side hook and loop material on tab and soft side on object (placed so numeral on MathLine is visible.) Count aloud as student slides and point to total as needed.

Option: For skip counting, group tabs with tape. MathLine 31 will provide more numbers to skip count.

STUDENT: Student moves objects or tabs to the left on MathLine to count as instructor counts aloud. Student slides the tabs and finds the total on the MathLine.

Option: student slides and counts amounts by 2 or 5 to skip count.

EXAMPLE 3



Student counts with a Step-by-Step communicator.

INSTRUCTOR: Record each number on each step in preferred sequence plus 1 on the Step-by-Step communicator. Move or point to each object as student counts. Allow student time to practice the number sequence.

STUDENT: Student activates the Step-by-Step as instructor moves or points. Student stops at the appropriate number.

EXAMPLE 4

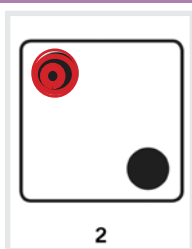


Student uses a calculator to count.

INSTRUCTOR: Enter $1 + 1$ in calculator for counting by ones. For skip counting by tens, enter $10 + 10$, for fives enter $5 + 5$ and for twos enter $2 + 2$. Say the numbers aloud as student presses =.

STUDENT: Student presses = sign for each number (or group of numbers, if skip counting), as instructor says the numbers aloud.

EXAMPLE 5



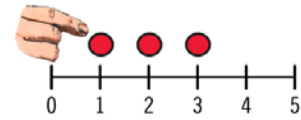
Student uses tactile clues to count.

INSTRUCTOR: Provide subitizing (dot) cards that correspond to amount to be counted or matched to a set. Fasten wax-coated yarn sticks in circles to fill in each dot.

Option: fasten soft side of circle-shaped hook and loop material onto each dot for student to feel amount

STUDENT: Student feels the dots on the card and counts or subitizes the amount on the card.

count (2 of 3)



EXAMPLE 6



Student counts objects using a tactile cue to keep track.

INSTRUCTOR: Fasten a strip of soft sided hook and loop material in center of counting tray.

Option: use a container with multiple compartments, e.g. egg carton, 10-frame box, ice cube tray, muffin tin, pill or jewelry box.

STUDENT: Student uses the tactile cue (hook and loop material) as a barrier between counted and uncounted objects to keep track. Student moves objects from one side of the hook and loop material to the other while counting each.

Option: student uses compartments as tactile cue for what has been counted or as a cue to stop or check amount counted, e.g. count 12 objects with an egg carton. When it's filled, there are 12. Did student count to and stop at 12?

EXAMPLE 7



Student places objects into 10-frame boxes to count.

INSTRUCTOR: Provide empty 10-frame box and connecting cubes to student.

STUDENT: Student places connecting cubes into 10-frame box to count.

EXAMPLE 8



Student adds or removes objects to/from a bag or container to count.

INSTRUCTOR: Place manipulatives in a bag or container, or provide student with manipulatives and an empty bag/container.

Option: add/remove objects in groups to skip count (e.g. two at a time to count by two).

STUDENT: Student adds or removes objects one at a time to count them.

EXAMPLE 9



Student uses fingers and 10-frame box to count connecting cubes.

INSTRUCTOR: Begin with student counting fingers to 1-4 (corresponding to Ch 2 lessons). Place connecting cubes on student fingers (or assist) to count again. Show how to move cubes from fingers to 10-frame box and count again. Repeat with 5-10.

Option: show how to use 10-frame boxes for counting connecting cubes by tens and ones, then later use them as 10-frames in the place value chart (corresponding to lessons).

STUDENT: Student counts fingers, then counts connecting cubes on fingers, then counts connecting cubes in 10-frame boxes. (corresponding to Chapter 2 lessons).

Option: student counts connecting cubes into 10-frame boxes and counts them by 10 and singles by ones. When learning place value, student counts amounts and moves filled 10-frame box(es) to tens place.

EXAMPLE 10



Student listens to claps and represents amount with objects.

INSTRUCTOR: Clap an amount for student to locate and match to a set or subitizing (dot) card as the student watches. Allow student time to practice. Ask "How many?"

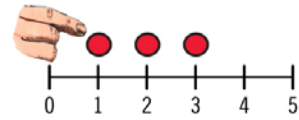
Option: record clapping sound on BIGmack for the student to activate as an alternative to clapping.

STUDENT: Student listens and counts claps, then finds matching amount in a set or on a card.

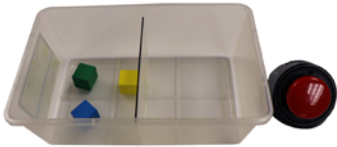
Student counts amount in set or on card and claps to represents amount counted.

Option: student activates BIGmack to clap.

count (3 of 3)



EXAMPLE 11



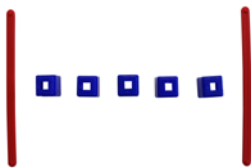
Student counts using a container with two compartments.

INSTRUCTOR: Fasten plastic or cardboard wall in center of a container to create two compartments. Place manipulatives to be counted in the left side.

STUDENT: Student moves manipulatives from the left compartment to the right compartment to count them.

Option: record counting sequence on the Step-by-Step for student. Allow student time to practice.

EXAMPLE 12



Student counts using tactile cues.

INSTRUCTOR: Arrange manipulatives in a specific order (linear, circular, rows of array, etc.). Place one tactile cue at the beginning of the set and one tactile cue at the end of the set.

STUDENT: Student uses the tactile cues to find the beginning and end points of the set to be counted and counts the set.

EXAMPLE 13



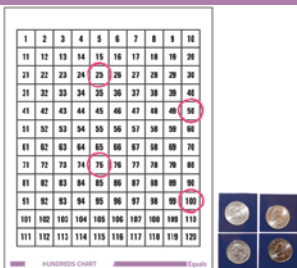
Student skip counts with bagged sets.

INSTRUCTOR: Place equal amounts of manipulatives in bags, e.g. 2 in each bag, 5 in each bag, or 10 in each bag, etc.) to be skip counted.

STUDENT: Student skip counts the equal amounts in the bags, e.g. 5, 10, 15.

Option: bowls or other containers could be used instead of bags.

EXAMPLE 14



Student skip counts to \$1 (100) using the hundreds chart.

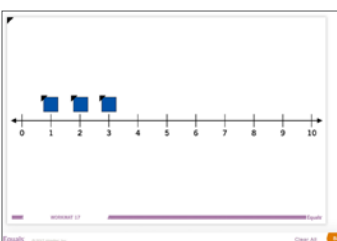
INSTRUCTOR: Place wax coated yarn circles around 25, 50, 75, and 100. Place 4 small squares from the Attribute Blocks on the table, and place a quarter on each piece (to demonstrate the concept of a quarter).

STUDENT: Student places each quarter on the hundreds chart, in numerical order to count by 25.

Option: record the counting sequence (e.g. 25, 50, 75, 100) on the Step-by-Step. Place quarters for student as they activate the Step-by-Step to count by 25.

Option: student activates Step-by-Step to count by 25.

EXAMPLE 15



Student counts with digital manipulatives and workmats.

INSTRUCTOR: On the Equals Technology Lesson Center, open Workmat 17 and provide digital manipulatives.

STUDENT: Student counts with digital images onto Workmat 17.

Optional: use the Switch Accessible version (SA) of Workmat 19 for switch access. Other workmats also available for switch accessible counting.

Optional: student uses switch to count and place digital manipulatives.

Note: directions for ETLC (including switch access) placed with link to ETLC on Members Only website.

cover



Play Video

EXAMPLE 1



Student covers objects with balance scale and colored bowl.

INSTRUCTOR: Fasten a bowl upside down to the bottom of the balance scale. Place objects to be covered under the sorting bowl.

STUDENT: Student adds objects to the pan of the balance scale to cover objects. Remove objects to uncover.

EXAMPLE 2



Student covers objects with cardboard.

INSTRUCTOR: Provide student with a piece of cardboard large enough to cover object.

STUDENT: Student places cardboard over objects to cover them.

Option: Attach a craft stick to the cardboard to use as a handle.

EXAMPLE 3

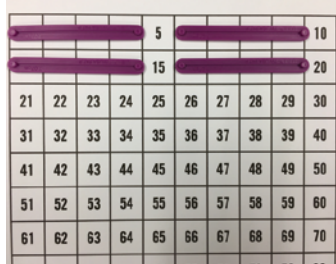


Student covers parts of a worksheet with an attribute block.

INSTRUCTOR: Provide student with attribute blocks (squares and rectangles work best).

STUDENT: Student uses attribute blocks to cover part of a worksheet to make it less cluttered, i.e. distracting pictures, instructions, answers, etc.

EXAMPLE 4



Student covers portions of the hundreds chart with Ang-Legs.

INSTRUCTOR: Provide student with Ang-Legs.

STUDENT: Student places Ang-Leg on numerals on the hundreds chart to assist with finding numbers, counting, and skip counting, e.g. when counting by fives, student covers 1-4, 6-9, 11-14, 16-19, etc. keeping only amounts ending with 0 and 5 visible.

Option: assist student with placement of Ang-Legs.

Play Video

EXAMPLE 5



Student places objects in a bag to cover them.

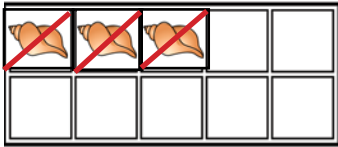
INSTRUCTOR: Provide student with an opaque bag, e.g. paper bag, cloth bag, etc.

STUDENT: Student places objects in a bag to cover them.

cross-off



EXAMPLE 1



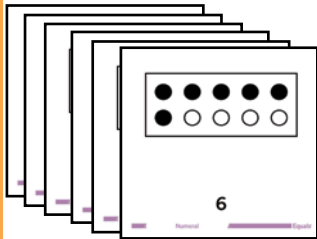
Student uses wax-coated yarn sticks to cross-off amounts to subtract.

INSTRUCTOR: Cut wax-coated yarn sticks into smaller pieces and provide to student.

STUDENT: Student places pieces of wax-coated yarn sticks over amounts on 5, 10, and 20-frames to cross-off them off to subtract.

Play Video

EXAMPLE 2

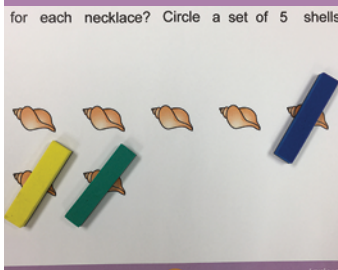


Student flips 10-frame cards to cross-off amounts to subtract.

INSTRUCTOR: Provide 10-frame numeral cards with amounts 0-10 in an ordered pile with 10 on top in descending order to 0 on the bottom of the pile.

STUDENT: Student flips each 10-frame until card with start amount is visible. Student flips and counts one card for each amount to subtract. Final amount visible is the amount left. For example, with $6 - 2 = \underline{\quad}$, the student flips the cards face down until 6 is visible. Student then flips 2 cards. The visible card is 4. $6 - 2 = 4$.

EXAMPLE 3

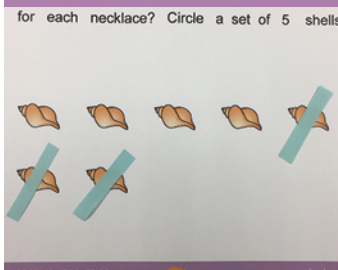


Student uses magnetic symbols to cross-off.

INSTRUCTOR: Provide student with lines from the magnetic numeral set.

STUDENT: Student places the magnetic lines over images or amounts to cross-off.

EXAMPLE 4



Student uses strips of paper to cross-off amounts to subtract.

INSTRUCTOR: Cut thin strips of paper and place sticky tac on the back. Provide strips of paper to student.

STUDENT: Student places the strips of paper on amounts on paper to show they are crossed-off (subtracted).

Option: cut off the top strips of sticky notes for student to use to cross-off amounts on paper.

EXAMPLE 5



$$5 - 2 = 3$$

Student uses counting circle colors to cross-off amount for subtraction.

INSTRUCTOR: Provide double-sided counting circles for the student.

STUDENT: Student places an amount of yellow-sided counting circles then flips subtracted amount to show new color (red) as the amount crossed-off. The remaining yellow-sided counters show the solution.

cut



EXAMPLE 1

Student uses pre-adapted battery-operated scissors with a switch to cut.



INSTRUCTOR: Attach a switch to battery-operated scissors.

STUDENT: Student activates the scissors with a switch while a helper directs the scissors to cut on the line.

EXAMPLE 2

Student cuts with pre-adapted battery-operated scissors with a Step-by-Step.



INSTRUCTOR: Record a message related to cutting on Step-by-Step communicator such as "Will you help me cut?", "Turn the corner.", "Faster!" etc. Attach the scissors to the Step-by-Step communicator.

STUDENT: Student activates the Step-by-Step to make comments and turn on the scissors.

EXAMPLE 3

Student uses adapted scissors to cut.



INSTRUCTOR: Determine appropriate type of scissors in consultation with an occupational therapist.

STUDENT: Student cuts with adapted scissors.

Options: beginner scissors, self-opening, with double handles, table top scissors, and loop scissors.

EXAMPLE 4

Student cuts with sliding or wrapping paper scissors.

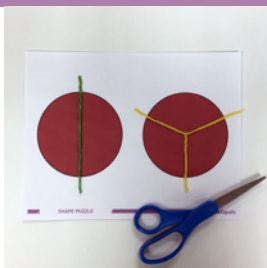


INSTRUCTOR: Provide sliding or wrapping paper scissors and assists in guiding the scissors on the line.

STUDENT: Student holds and/or pushes the scissors along the line.

EXAMPLE 5

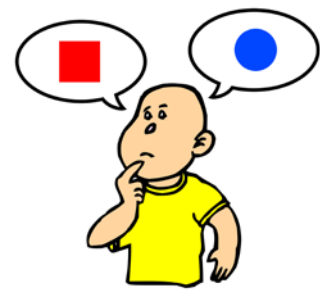
Student shows preferred location(s) for cutting the paper.



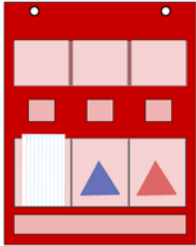
INSTRUCTOR: Provide student with Ang-Legs or wax-coated yarn sticks.

STUDENT: Student places Ang-Legs or wax-coated yarn sticks on top of the paper to indicate where the paper should be cut.

decide



EXAMPLE 1



Student eliminates options to help make a decision.

INSTRUCTOR: Place the options in a pocket chart.

STUDENT: Student covers options with index card to eliminate choices to help make a decision.

Option: record "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student eye gazes, touches, or points. Student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 2



Student chooses a TalkingBrix to make a decision.

INSTRUCTOR: Record each choice on TalkingBrix and place matching pic-symbol on each as student watches. After student has listened and activated each several times ask, "What is your choice?"

STUDENT: Student activates the TalkingBrix multiple times to hear and think about the options. Student chooses by activating TalkingBrix.

Option: after student has listened several times, ask which should be taken away. Remove it after student indicates which one can be removed. Repeat until one remains.

Option: student chooses which to remove. Repeat one more time to make the final decision.

EXAMPLE 3



Student lists pros under each option to show thinking about decision.

INSTRUCTOR: Provide three options. Give choices for pros for the first option on index cards. Use pic-symbols or objects as possible. The instructor places a note or pic-symbols on outside of pocket and object (if any) inside the pocket.

STUDENT: Student eye gazes, touches, or points to choose pros for each option. The option with the most pros is the decision.

Option: record "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 4



Student uses an iTalk2 to choose possible options from a list of choices.

INSTRUCTOR: Record "yes" and "no" on the iTalk2. Instructor or a peer lists options for student to decide.

STUDENT: Student answers "yes" or "no" when presented with options.

Option: write name of each option on a list with pic-symbol or object as possible to match. Write "yes" or "no" by each option as student answers "yes" or "no". If there is more than one "yes" repeat the options only with the yes votes until narrowed down to the final decision.

Option: if there is more than one yes, student will repeat the process by stating "yes" or "no" with the iTalk2 when only the yes options are presented until there is only one final option left as the final decision.

EXAMPLE 5



Student decides using the Step-by-Step communicator.

INSTRUCTOR: Record choices for student on the Step-by-Step communicator (e.g. red, orange, yellow, green, blue, violet). Record near student and play choices with examples so student knows the choices. Model listening to all the choices. Replay and stop when you hear your choice to show how to choose. Allow student time to practice. Listen for the last choice the student says on Step-by-Step when student is ready to decide.

STUDENT: Student activates the Step-by-Step to hear all the choices, then cycles through choices again until the desired choice is stated and student stops to choose it.

describe



EXAMPLE 1

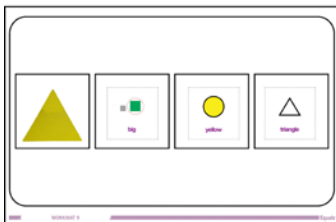


Student describes an object, action, or shape with TalkingBrix.

INSTRUCTOR: Record a descriptive word on each TalkingBrix, e.g. color names, size, amount, category, shape names, shape attributes (right angle, obtuse angle, acute angle, circle face, square face, number of sides or angles), etc. Provide pic-symbols for student to choose what is recorded, then place on the recorded TalkingBrix.

STUDENT: Student activates the TalkingBrix to describe an object, shape, or action.

EXAMPLE 2

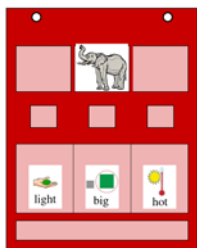


Student describes an object with choices on a Workmat 9 display.

INSTRUCTOR: Label the squares on Workmat 9. The first square is for the object the student will describe. The remaining three boxes are designated description boxes, e.g. color names, size, amount, category, shape names, shape attributes (right angle, obtuse angle, acute angle, circle face, square face, number of sides or angles), etc.

STUDENT: Student places three pic-symbols, photos, or objects onto Workmat 9 to describe an object, action, or shape.

EXAMPLE 3



Student describes an object with pic-symbol choices in the pocket chart.

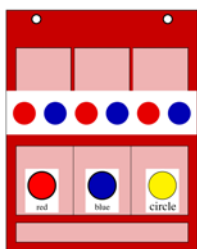
INSTRUCTOR: Place descriptive pic-symbols into the pocket chart, e.g. color names, size, amount, category, shape names, shape attributes (right angle, obtuse angle, acute angle, circle face, square face, number of sides or angles), etc.

STUDENT: Student eye gazes, touches, or points to choose an appropriate pic-symbol to describe an object, action, or shape.

Option: record "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 4



Student describes a pattern using number or name units.

INSTRUCTOR: Fasten pattern in the top spaces of the pocket chart. Place pic-symbols or objects representing attributes in the pockets, e.g. color names, size, amount, category, shape names, shape attributes (right angle, obtuse angle, acute angle, circle face, square face, number of sides or angles), etc.

STUDENT: Student eye gazes, touches, or points to describe the pattern.

Option: record "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 5



Student answers questions to describe an object with the iTalk2.

INSTRUCTOR: Ask student yes and no questions about the object to be described, e.g. "The object is a triangle: Does this shape have three sides?, Does this shape have four sides?, Are all the sides the same length?, etc. Allow student time to practice.

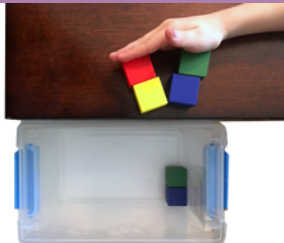
STUDENT: Student answers yes and no questions about an object to describe it.

Option: record "yes" and "no" on an iTalk2 for student to answer questions.

discard



EXAMPLE 1



Student discards objects by sweeping them off a table into container.

INSTRUCTOR: Place/fasten container or bag near the edge of table or tray.

STUDENT: Student pushes the object(s) off the table into the container to discard them.

EXAMPLE 2

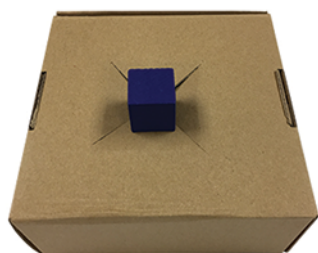


Student discards objects using a paper funnel.

INSTRUCTOR: Create a funnel from a large piece of paper or poster board. Position the small end so objects placed in the large end fall into a container.

STUDENT: Student places objects to be discarded into the large end of the funnel.

EXAMPLE 3



Student discards objects into a cardboard box.

INSTRUCTOR: Cut an X shape into the top of a cardboard box, leaving all flaps in place.

STUDENT: Student moves objects to be discarded on top of box towards X cut, then pushes them down into the box to discard them.

EXAMPLE 4



Student tells which card to discard with the Step-by-Step.

INSTRUCTOR: Record ordinal number sequence on the Step-by-Step. Allow student time to practice. Point to and state each card's position in the student's hand, e.g. first, second, third, etc. to identify for the student.

STUDENT: Student chooses the card to discard by activating the Step-by-Step to begin the sequence, stopping after chosen card's position.

Option: place cards in baseball card album page placed on 2" or larger binder instead of student's hand

Note: ordinal numbers identify card positions from left to right in the player's hand to keep cards hidden

EXAMPLE 5



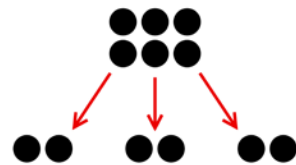
Student places sticker on object to be discarded.

INSTRUCTOR: Provide student with stickers.

STUDENT: Student places stickers on objects chosen to be discarded.

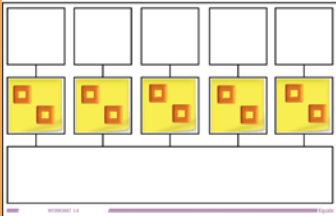
Option: use sticky notes instead of stickers.

divide



Play Video

EXAMPLE 1



Student counts amounts one at a time into designated number of groups.

INSTRUCTOR: Fasten sticky notes for amount of groups on each square of Workmat 14. Place counters on rectangle below. Record number sequence to quotient (amount in each group) on Step-by-Step.

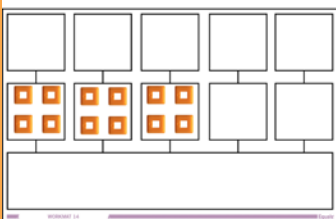
STUDENT: Student moves one counter one at a time into each designated group until dividend amount runs out, e.g. 1 in first square, 1 in second square, 1 in third square etc. then another in first square, second square, etc.

Amount in each group is not known. The divisor is the number of groups. The dividend is the first amount in the equation, e.g. $10 \div 5 = 2$. The quotient is the amount present in each group. This supports partitive division problems.

Student activates Step-by-Step to count the same amount in each individual group (quotient) to identify the quotient and to make sure the dividend has been divided in groups equally.

Play Video

EXAMPLE 2



Student counts designated equal amounts into unknown number of groups.

INSTRUCTOR: Provide student with amount of counters to be divided (dividend) on Workmat 14. Record number sequence to divisor amount on Step-by-Step.

STUDENT: Student counts divisor amount with Step-by-Step into a group and continues counting the amount into a new group until dividend is used up.

Record number sequence to quotient on Step-by-Step and point as student counts each amount of groups.

Student activates Step-by-Step to count amount of groups (quotient).

Amount of groups is not known. The divisor is the amount in each group. The dividend is the first amount in the equation, e.g. $12 \div 4 = 3$. The quotient is the amount of groups. This supports measurement division.

EXAMPLE 3



Student locates numerals/symbol from equation on calculator and enters it.

INSTRUCTOR: Cut out small square or rectangle windows from paper and fasten onto the space around the numerals and symbols from the equation onto the calculator with sticky tac, e.g. $9 \div 3$.

STUDENT: Student chooses the correct numeral or symbol in the order presented in the equation and presses each button, then = on the calculator.

Option: use wax-coated yarn sticks to frame the numerals/symbols.

Option: color code the numerals/symbols in the equation to match colored windows or yarn sticks.

EXAMPLE 4

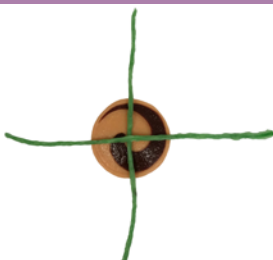


Student divides into tactile containers.

INSTRUCTOR: Create sorting boxes with wax-coated yarn sticks for student to group objects. Number of sorting boxes depends on amount in divisor. Count consecutively to dividend amount as student moves one at a time to each sticky note. Record number sequence to quotient amount on Step-by-Step and point as student counts each group. *The divisor is the number of groups. The dividend is the starting amount. The quotient is the amount present in each group. This supports partitive division problems.*

STUDENT: Student divides objects into equal groups using the tactile boxes as a guide. Student activates Step-by-Step to count amount in individual group as instructor points (quotient). Student repeats counting each group to make sure dividend is divided equally.

EXAMPLE 5



Student divides object or picture into equal parts with yarn sticks.

INSTRUCTOR: Provide student with wax-coated yarn sticks or Ang-Legs and object(s) and/or picture(s) to divide into equal parts.

STUDENT: Student places wax-coated yarn sticks or Ang-Legs on manipulatives or pictures to show how it can be divided into equal parts.

draw (1 of 3)



EXAMPLE 1



Student draws by tracing.

INSTRUCTOR: Draw a shape or line with a highlighter or dotted lines.

Option: anchor an Ang-Leg line to trace.

STUDENT: Student follows the lines, tracing on top with a marker.

Option: student traces an Ang-Leg to draw a line

EXAMPLE 2



Student activates an iTalk2 to request specific lines or figures in a drawing.

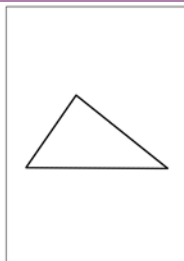
INSTRUCTOR: Record lines, e.g. curvy, straight, or square, circle or specific figures, e.g. man, dog, etc. with matching pic-symbols as student watches. Demonstrate and allow student time for practice.

Option: place three choices of pic-symbols, Ang-Legs, or shapes in pocket chart for student to choose. Point to each choice for the student, if needed.

STUDENT: Student chooses and activates iTalk2 to tell a helper to draw the requested lines or object.

Option: student chooses pic-symbol, Ang-Leg, or shape by touch, point, or eye gaze, or indicates choice as instructor points to each.

EXAMPLE 3



Student copies simple drawing from a book.

INSTRUCTOR: Create a book with necessary shapes or figures for student to copy a drawing.

Option: highlight some of the lines or raise them with fastened Ang-Legs, wax-coated yarn sticks, or dried glue. Remove paper from crayon.

STUDENT: Student finds desired drawing in the book and copies it.

Option: student places a piece of paper over the simple drawing with raised glue lines, then colors with full length of crayon across the entire page to see the outline of the image appear.

EXAMPLE 4

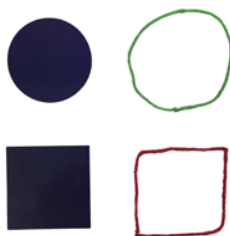


Student draws with an adapted tool.

INSTRUCTOR: Broaden the width of a writing tool by wrapping adhesive back, foam pipe insulation, foam weather stripping, tape, or soft-side hook and loop material.

STUDENT: Student grasps the tool to draw.

EXAMPLE 5



Student uses wax-coated yarn sticks to draw.

INSTRUCTOR: Provide student with wax-coated yarn sticks or Ang-Legs and fasten one end to paper.

Option: for shapes with straight sides, use Ang-Legs in place of wax-coated yarn sticks.

STUDENT: Student creates the desired shape with wax-coated yarn sticks by moving and fastening to paper surface.

Option: student uses Ang-Legs to create straight-sided shapes or figures.

draw (2 of 3)



EXAMPLE 6



Student uses wax-coated yarn sticks as a guide to draw or trace.

INSTRUCTOR: Place wax-coated yarn sticks as a guide alongside a path or within a channel to be traced.

STUDENT: Student uses the wax-coated yarn stick(s) as a guide to draw or trace by holding writing tool against guide or within a channel.

EXAMPLE 7



Student draws or traces as a helper moves the paper.

INSTRUCTOR: Move the paper as the student holds the writing utensil in place or demonstrate for a peer to move the paper.

STUDENT: Student holds the writing utensil still as a helper moves the paper to draw or trace.

EXAMPLE 8



Student draws or traces shapes using a guide.

INSTRUCTOR: Provide attribute block, pattern block, or other shape for student to draw or trace.

STUDENT: Student traces outside of the shape to draw it.

EXAMPLE 9



Student draws a line using a ruler and wax-coated yarn sticks as a guide.

INSTRUCTOR: Place wax-coated yarn in two places on paper or other surface to show beginning and end of the line. Place ruler between or on top of wax-coated yarn.

STUDENT: Student uses the wax-coated yarn sticks or Ang-Legs and ruler as a guide to draw a line of a specified length.

Option: attach pieces of wax-coated yarn to ruler with extensions for beginning and end points.

Option: use Ang-Legs as sturdier beginning and end points.

EXAMPLE 10



Student uses glitter or confetti to draw.

INSTRUCTOR: Create a shape or drawing with school glue. Be sure the glue is still wet before the student adds the glitter or confetti.

STUDENT: Provide student with glitter, confetti, or other small material to sprinkle on the shape provided.

Option: use colored glue for more colorful effect.

draw (3 of 3)



EXAMPLE 11



Student takes a picture of the correct shape as an option to drawing it.

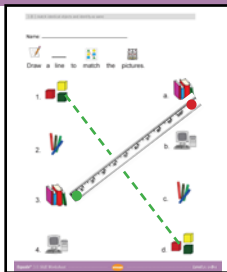
INSTRUCTOR: Provide student with a computer, tablet, or digital camera and choice of shapes.

STUDENT: Student takes a picture of the correct shape to draw it.

Option: provide switch accessibility for computer, tablet, or digital camera.

Option: student activates switch to activate computer, tablet, or digital camera.

EXAMPLE 12



Student draws by following a highlighted line or straight-edge.

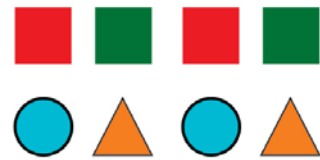
INSTRUCTOR: After student indicates two matching pic-symbols on a page with stickers or by pointing, draw a line with a highlighter from one pic-symbol to the other.

STUDENT: Student points to pic-symbols on page or places stickers then draws on the highlighted line from one pic-symbol to its match.

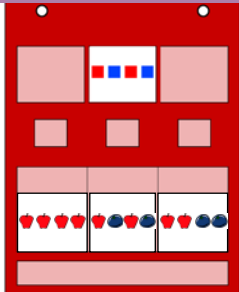
Option: fasten green sticker at one end of a ruler and a red sticker at the other end.

Option: student places ruler with green dot end by one pic-symbol and red dot end by its matching pic-symbol. Student draws along the straight edge.

duplicate



EXAMPLE 1



Student chooses a duplicate pattern from the pocket chart.

INSTRUCTOR: Place three patterns in the pocket chart. Point to each choice for the student, if needed.

Option: record “That’s the one I want” on Step-by-Step communicator for student to indicate choice as instructor points.

STUDENT: Student chooses pattern by touch, point, or eye gaze, or indicates choice with Step-by-Step as instructor points to each.

EXAMPLE 2



Student duplicates a pattern with a Step-by-Step communicator.

INSTRUCTOR: Record a pattern with distinct sound for each part as the student watches, e.g. clap, bark, clap bark for an AB pattern on a Step-by-Step communicator. Allow student time to practice.

STUDENT: Student activates the Step-by-Step to duplicate a visual AB pattern.

EXAMPLE 3

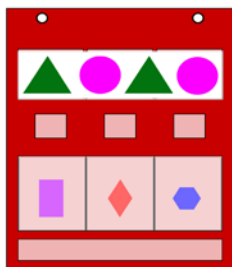


Student duplicates pattern with multiple switches or an iTalk2.

INSTRUCTOR: Record an auditory pattern part to a different message location as the student watches, e.g. clap on the red button and bark on the yellow button for an AB pattern. Allow student time to practice.

STUDENT: Student activates the Step-by-Step in order to duplicate a pattern.

EXAMPLE 4



Student chooses the correct parts of a pattern to duplicate.

INSTRUCTOR: Place pattern in top pocket. Place alternative parts of a pattern in a pocket chart to be used to duplicate the pattern in top pocket. Point to each choice for the student, if needed.

STUDENT: Student chooses each part to duplicate the pattern in the top pocket with alternative parts using eye gaze, touch, or pointing, or indicates choice as instructor points to each to duplicate the pattern.

EXAMPLE 5

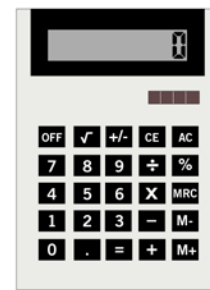


Student uses tactile clues to duplicate a pattern.

INSTRUCTOR: Place a tactile pattern with 3D blocks in a row, e.g. cylinder, rectangular prism. Choose a tactile clue on two alternative parts to duplicate the original, e.g. fasten cut wax-coated yarn stick on the yellow side of counting circles, while keeping the red side counting circles smooth.

STUDENT: Student touches the 3D block pattern to determine the pattern then feels each counting circle for differences to duplicate the pattern of the 3D shapes, in this case, AB pattern.

enter



EXAMPLE 1



Student locates and enters numerals/symbol from equation on calculator.

INSTRUCTOR: Cut out small square or rectangle windows from paper and fasten onto the space around the numerals and symbols from the equation onto the calculator with sticky tac, e.g. 8 - 3.

Option: use wax-coated yarn sticks to frame the numerals/symbols.

Option: color code the numerals/symbols in the equation to match colored windows or yarn sticks.

STUDENT: Student chooses the correct numeral or symbol in the order presented in the equation and presses each button, then = on the calculator.

EXAMPLE 2



Student enters numbers/symbols by pressing button with a tool.

INSTRUCTOR: Broaden the width of an unsharpened pencil by wrapping adhesive back, foam weather stripping, foam pipe insulation or soft-side hook and loop material, with pencil eraser exposed.

STUDENT: Student grasps the tool and presses the eraser portion of pencil on calculator or other button.

EXAMPLE 3

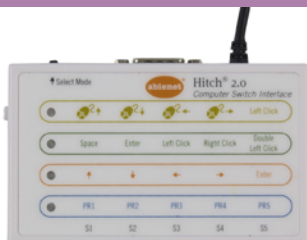


Student enters numbers and symbols on calculator by giving directions.

INSTRUCTOR: Record the equation on Step-by-Step to be entered in the calculator, one number or symbol at a time as student watches. Allow student time to practice.

STUDENT: Student gives directions to peer or adult, one step at a time, for entering equation into calculator.

EXAMPLE 4



Student enters numbers and symbols on calculator with a switch & software.

INSTRUCTOR: Provide switch access with Hitch Switch Interface and calculator software.

STUDENT: Student uses scanning and switch to activate calculator software.

EXAMPLE 5

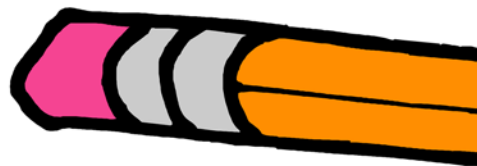


Student enters number and symbols on an iPad calculator with Hook+.

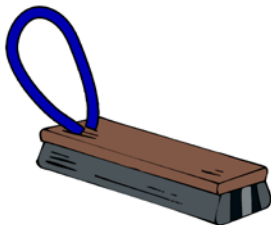
INSTRUCTOR: Provide iPad switch access with Hook+ and calculator app.

STUDENT: Student uses scanning and switch to activate calculator app.

erase



EXAMPLE 1



Student erases with an adapted board eraser.

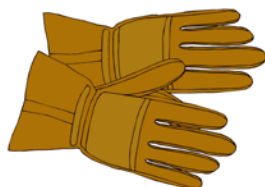
INSTRUCTOR: Construct a handle from hook and loop material to erase material on board eraser.

STUDENT: Student grasps handle of eraser to erase board.

Option: fasten soft-side hook and loop material to glove. Fasten to rough-side attached to eraser. Place glove on student's hand.

Option: student wears glove attached to eraser and erases.

EXAMPLE 2



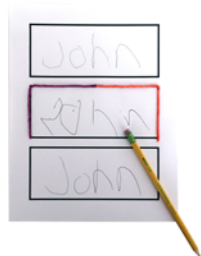
Student erases white board or chalkboard with a glove, mitten, hand, or arm.

INSTRUCTOR: Assist student in placing glove or mitten for on hand for erasing board. Show student how to use sweeping motion with arm or back of hand.

STUDENT: Student puts on glove or mitten and wipes board to erase.

*Note: glove or mitten can be placed on foot

EXAMPLE 3



Student erases within set borders.

INSTRUCTOR: Fasten Ang-Leg or wax-coated yarn stick borders for erasing. Fasten borders around top, left, and right sides.

STUDENT: Student erases within set of Ang-Leg borders.

Option: fasten multiple Ang-Legs on top of each other to make them higher.

Option: use same materials for borders placed on a white board for use with dry erase markers.

EXAMPLE 4



Student uses rubber stamp to erase.

INSTRUCTOR: Provide a rubber stamp (use X).

STUDENT: Student stamps to cross-off a number, word, or pic-symbol.

EXAMPLE 5



Student erases by placing sticky notes.

INSTRUCTOR: Provide student with sticky notes to erase.

STUDENT: Student places sticky note on top of paper to erase.

Option: provide pieces of paper and fasten double-sided tape in area or provide large white labels for student to place instead of sticky notes.

estimate



EXAMPLE 1



22

8

4

Student estimates an amount by choosing from three numerals.

INSTRUCTOR: Place three choices (two correct, one foil) of estimated amounts. The two correct amounts are not identical, but close enough to be legitimate estimates. The foil amount is an obvious difference from the two correct amounts.

Option: once a student is comfortable with estimation, provide only one correct answer.

STUDENT: Student chooses a number amount to estimate a given set of objects pictured or described.

EXAMPLE 2



Student estimates by choosing a pic-symbol with similar size or amount.

INSTRUCTOR: Place pic-symbols to depict objects or sets that are similar in amount or size to the amount to be estimated (plus one foil), e.g. to estimate the weight of a book, give choices: elephant, a water bottle, and a basketball. Point to each choice, if needed.

STUDENT: Student chooses the pic-symbol of an object or set of objects that are similar in weight or size to the target amount using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 3



Student estimates by choosing an object with similar size or amount.

INSTRUCTOR: Place three objects or sets of objects on table that are similar in amount or size to the amount to be estimated (plus one obvious foil). e.g. place a bag of apples, a book, and a feather when estimating the weight of a bag of flour. Point to each choice as needed.

STUDENT: Student chooses the object or set of objects of similar weight or size to the amount to be estimated using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 4



Student skip counts to estimate amount in a given set.

INSTRUCTOR: Divide a set into rough groups of 10 and record skip counting by 10's on Step-by-Step communicator as the student watches. Allow student time to practice. Point to each set as student counts.

Option: Display three number choices. Point to each choice, if needed.

STUDENT: Student activates the Step-by-Step to skip count as instructor points. The last number counted is the estimate.

Option: student chooses the last number counted from choice of three using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 5



Student estimates with the MathLine.

INSTRUCTOR: Provide student with the MathLine Jumbo 10 or MathLine 31, depending on amount range. Fasten wax-coated yarn sticks to highlight three consecutive options for an estimate.

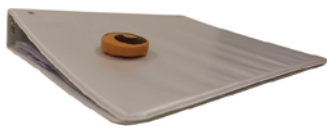
Option: provide a number line to 20 or hundreds chart in place of the MathLine. Fasten wax-coated yarn sticks around three estimates.

STUDENT: Student estimates an amount by choosing a number on the MathLine, number line, or hundreds chart.

explore



EXAMPLE 1



Student explores an object secured to slant board, table or lap tray.

INSTRUCTOR: Secure object to surface of slant board, table, or lap tray.

STUDENT: Student touches and explores the object without the object moving out of reach.

EXAMPLE 2



Student explores object(s) in bag secured to slant board, table or lap tray.

INSTRUCTOR: Place objects in plastic zipper bag, then secure bag to surface of slant board, table or lap tray.

STUDENT: Student touches and explores the object without the object moving out of reach.

Option: place smaller objects between two layers of clear mailing tape and secure.

EXAMPLE 3



Student explores a poster with TalkingBrix.

INSTRUCTOR: Record name, description, or sound effects that match objects on a poster, e.g. record “a cookie next to the pencils.” Place TalkingBrix near the photo it describes.

STUDENT: Student finds and activates the TalkingBrix to explore and talk about what was found on the poster.

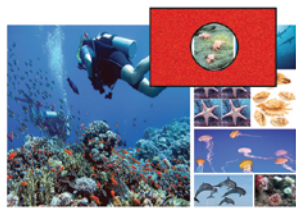
Option 1: fasten object onto TalkingBrix that matches the photo, e.g. cookies or pencils.

Optional 2: record sounds that match the picture instead of description, e.g. dog barking.

Play Video



EXAMPLE 4



Student explores with a focus window.

INSTRUCTOR: Create a focus window - laminate sheet of construction paper then cut a hole with desired size and shape.

STUDENT: Student moves focus window to explore and find photos, blocking out extra details.

EXAMPLE 5



Student explores objects placed in containers or under shredded paper.

INSTRUCTOR: Place variety of objects in different containers with and without lids, e.g. shapes, objects with the same color, varying amounts in zipper bags, etc.

STUDENT: Student opens boxes and/or moves shredded paper to look for objects and explore.

Option: place objects covered with shredded paper or other material, e.g. rice, beans, etc.

fasten



EXAMPLE 1



Student uses a glue stick to fasten.

INSTRUCTOR: Broaden the width of the glue stick by wrapping adhesive back, foam weather stripping, foam pipe insulation or soft-side hook and loop material.

STUDENT: Student grasps glue stick to apply glue.

EXAMPLE 2



Student fastens with a sponge brush and liquid glue.

INSTRUCTOR: Secure a shallow container to work surface, pour liquid glue in the container, and provide sponge brush.

STUDENT: Student grasps brush and applies glue in the focus window open space.

Option: create a focus window - laminate sheet of construction paper then cut a hole with desired size. Secure a focus window over area for applying glue.

EXAMPLE 3



Student presses tape into place to fasten.

INSTRUCTOR: Place tape partially on area to be fastened and assist student as needed to secure the remaining amount.

STUDENT: Student presses the tape down to area to be fastened.

EXAMPLE 4



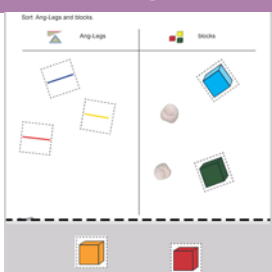
Student fastens with hook and loop material.

INSTRUCTOR: Fasten hook and loop material to object and surface. Rule of thumb - fasten soft side of the object to be fastened.

STUDENT: Student places or slides object to surface to fasten it.

Option: fasten two-sided tape on surface.

EXAMPLE 5



Student fastens with sticky tack.

INSTRUCTOR: Provide student with small amounts of sticky tack on possible locations on a worksheet, in sorting circles, or on construction paper.

STUDENT: Student presses pic-symbol on the sticky tack to fasten.

Play Video

Play Video

find (1 of 2)



EXAMPLE 1



Student uses a focus window to reduce distractions to find an object.

INSTRUCTOR: Provide a focus window of an appropriate size for the student to locate a picture. Place and move window for the student if needed.

Option: record "this one" or similar to Step-by-Step communicator and place near student.

Option: fasten windows to choices with sticky tac.

STUDENT: Student places and moves focus window to locate picture. If instructor is moving the window, the student indicates "this one."

Option: student activates Step-by-Step communicator to indicate choice.

EXAMPLE 2



Student uses a picture, model, or duplicate to find and match an object.

INSTRUCTOR: Provide a representation (picture, pic-symbol, model or duplicate) of the object the student is locating.

Option: bring examples to the student to match, if needed.

STUDENT: Student uses the representation to search, then place by each object found to decide if it is the object in question.

Option: if instructor brings the representation to the student, then student indicates if the object matches the representation

EXAMPLE 3

1	2	3	4	5	6	7	8
11	12	13	14	15	16	17	18
21	22	23	24	25	26	27	28
31	32	33	34	35	36	37	38
41	42	43	44	45	46	47	48
51	52	53	54	55	56	57	58
61	62	63	64	65	66	67	68

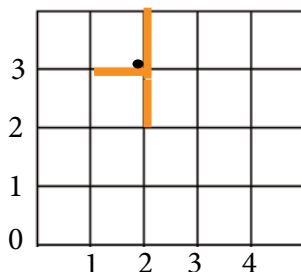
Student uses Ang-Leg borders to find a number on a chart.

INSTRUCTOR: Fasten Ang-Leg borders on either side of a row or column containing desired number on a chart.

STUDENT: Student follows the bordered path to location of number with a cube or finger.

EXAMPLE 4

Play Video



Student uses Ang-Legs to find coordinates on graph or numbers in a grid.

INSTRUCTOR: Snap two Ang-Legs together and place in vertical position. Fasten horizontal line in center (flipped to right of line). Place corner just below 0. Move right for x-axis coordinate, then flip horizontal line to left and move up for y-axis coordinate. See example for coordinate (2, 3).

Option: use for locating products on a multiplication chart. Start upper left corner and flip as directed in same way as graph.

STUDENT: Student watches as the instructor moves the tool and indicates "this one" when it reaches the correct number for the x-axis, then y-axis. Student marks point.

Option: student moves tool

EXAMPLE 5



Student finds books and other media in the media center.

INSTRUCTOR: Pull three books from library shelf and place in a horizontal or vertical row for student to choose desired book or a book needed for a project.

Option: record "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step.

STUDENT: Student eye gazes, touches, or points to choice.

Option: place in vertical row for student with cortical vision impairment if placement change is indicated.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

find (2 of 2)



EXAMPLE 6



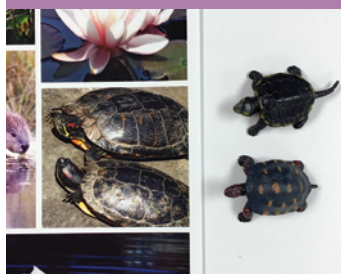
Student uses an auditory cue to find an object.

INSTRUCTOR: Record an auditory cue, e.g. "Look here for the turtle.", "Look here for the butterfly.", and "Look here for the dragonfly." on the TalkingBrix as the student watches. Allow student time to practice. Place each TalkingBrix in an area near the object.

STUDENT: Student finds and activates TalkingBrix, then looks around nearby to find the object.

Option: record multiple TalkingBrix to place in different locations around the room or table.

EXAMPLE 7



Student uses a concrete representation to find a picture on a poster.

INSTRUCTOR: Give a concrete representation of a photo in a book or on a poster. Direct student to find the photo.

STUDENT: Student holds or moves object to find photo. Student identifies the photo on the poster.

Option: record an auditory clue or name of the object found so the student can tell what they found, e.g. "I found a turtle!"

Option: student uses TalkingBrix to identify the photo.

Option: provide Poster Cards or pic-symbols to find photo on poster or in book.

EXAMPLE 8



Student uses a tactile cue to find something on a poster.

INSTRUCTOR: Fasten wax-coated yarn on a poster to help the student find relevant information, e.g. place a circle around a car for the student to locate.

STUDENT: Student uses the tactile cue to find information on a poster.

Option: record a description of the photo on the Step-by-Step communicator.

Option: student describes what was found using the Step-by-Step.

EXAMPLE 9



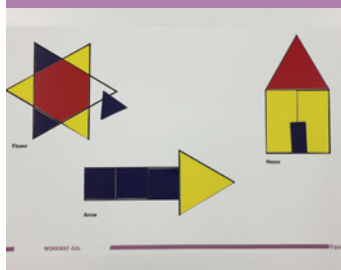
Student finds specified object(s) by eliminating other objects from a pile.

INSTRUCTOR: Place mixed selection of objects on the counting tray. Fasten tray to the table with hook and loop material or sticky tac.

STUDENT: Student sweeps unwanted objects onto the table to remove them from the group. The object(s) remaining on the table has been found by the student.

Option: place objects directly on table and fasten a container just below edge of table.

EXAMPLE 10



Student uses workmats to find new designs or new shapes to make.

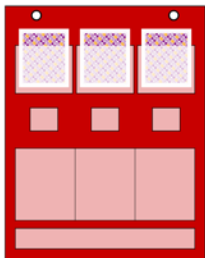
INSTRUCTOR: Provide Workmats (designs: 34a, 34b, 42a, 42b or shapes: 37, 43a, 43b) and attribute blocks and/or pattern blocks.

STUDENT: Student locates design or shape to make and slides shapes outside or within the borders to create it.

flip (1 of 2)



EXAMPLE 1



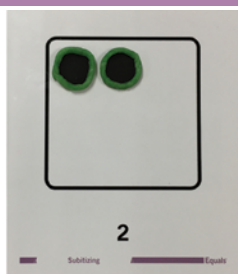
Student chooses which card or shape to flip from a choice of three.

INSTRUCTOR: Place three card choices on table or in pocket chart and say, "Show the card." Point to each choice, if needed.

STUDENT: Student chooses the card by using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 2

Play Video

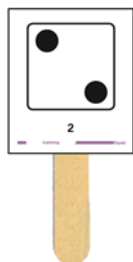


Student uses a tactile cue to determine which card or object to flip.

INSTRUCTOR: Attach wax-coated yarn sticks or soft hook and loop material to cards as a tactile cue, e.g. attach soft circle hook and loop material or yarn stick around circle to each dot on subitizing cards.

STUDENT: Student uses the tactile cues to identify which card to flip.

EXAMPLE 3



Student grabs a craft stick fastened to a card to flip it.

INSTRUCTOR: Attach craft sticks to cards to aid student in flipping the card.

STUDENT: Student uses the craft stick for leverage or as a handle to flip the card.

EXAMPLE 4



Student pushes ruler placed under an object to flip it.

INSTRUCTOR: Place a ruler under the object to be flipped, leaving part of the ruler hanging off the edge of the table.

STUDENT: Student uses the ruler as a lever to flip object.

EXAMPLE 5



Student chooses card to flip with spinner.

INSTRUCTOR: The instructor places cards randomly on All-Turn-It spinner.

STUDENT: Student spins to choose card to flip.

flip (2 of 2)



EXAMPLE 6



Student activates BIGmack to ask partner to flip a card or shape.

INSTRUCTOR: Record “Flip it!” to a BIGmack as the student watches. Allow student time to practice. Attach a matching pic-symbol.

STUDENT: Student activates the BIGmack to direct a partner to flip a container or object. Partner flips it and shows student.

EXAMPLE 7



Student flips a shape with a binder cover to change its orientation.

INSTRUCTOR: Attach hook and loop tab to open right or left side near opening of 3-ring binder cover. Place shape in page protector at the long side. Place on the binder with shape placed at largest part of binder opposite the open side. Place in front of student with enough room for the binder to open flatly on table in front of student.

STUDENT: Student pulls the tab to open the cover and drop the flipped shape onto the table.

EXAMPLE 8



Student flips a shape inside a page protector clamped in a binder.

INSTRUCTOR: Place open binder in front of student with enough room for the binder to open flatly on table in front of student. Place shape in page protector at a long side on the right. Place in the binder, clamped into the rings. Attach hook and loop tab on bottom right side of page protector.

STUDENT: Student pulls the tab to left to flip shape within the binder.

Play Video

fold



EXAMPLE 1



Student starts folding paper by moving page corner in direction of fold.

INSTRUCTOR: Secure one half of the paper to surface and lightly crease paper in direction of fold. Assist student in finishing the fold as needed.

STUDENT: Student grasps the paper and moves it over in the direction of a fold. Student presses to finish the fold.

Note: If student has difficulty crossing mid-line, place on right or left of mid-line; consult with Occupational Therapist.

EXAMPLE 2



Student uses a tool to complete a fold.

INSTRUCTOR: Begin the fold by pressing part of the fold line. Provide a ruler, rolling pin, or dowel for pressing the line. Assist the student as needed to press the fold line.

STUDENT: Student grasps ruler to press fold or rolls rolling pin or dowel along the line of the fold.

EXAMPLE 3

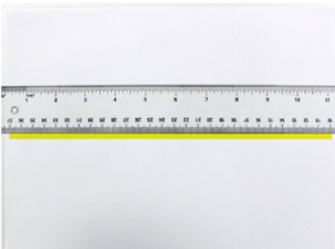


Student asks a peer to fold with a BIGmack.

INSTRUCTOR: Record "Fold, please" or similar phrase on a BIG-mack as the student watches. Allow student time to practice. Fasten appropriate pic-symbol.

STUDENT: Student activates BIG-mack when folding is required.

EXAMPLE 4



Student presses highlighted line or along guide to fold.

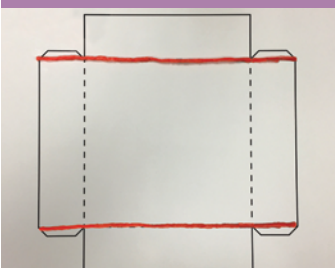
INSTRUCTOR: Highlight a horizontal fold line with a bright or dark color for student to fold.

STUDENT: Student folds on highlighted line.

Option: fasten ruler longer than paper onto table and slip paper beneath. Highlight line at closest ruler edge. Fasten farther end to the table.

Option: student brings paper edge over ruler to fold at the highlighted line along the edge of the ruler.

EXAMPLE 5

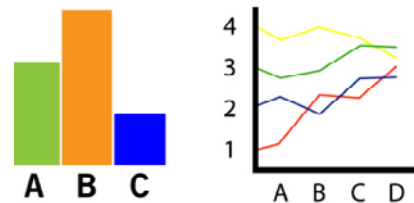


Student uses wax-coated yarn as a guide to make a fold.

INSTRUCTOR: Attach wax-coated yarn to paper as a guide for folding.

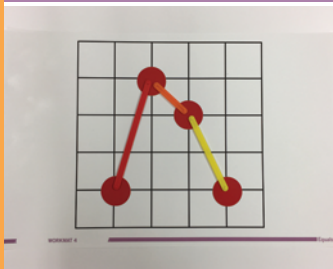
STUDENT: Student uses the wax-coated yarn as a guide to fold the paper.

graph (1 of 2)



Play Video

EXAMPLE 1



Student places Ang-Legs and circle counters on workmat to make a line graph.

INSTRUCTOR: Provide student with workmat, e.g. Workmat 4, and circle counters and Ang-Legs to plot data and make a line graph.

Option: use wax-coated yarn sticks instead of Ang-Legs.

STUDENT: Student uses circle counters to plot points and connects points with Ang-Legs to make a line graph.

EXAMPLE 2

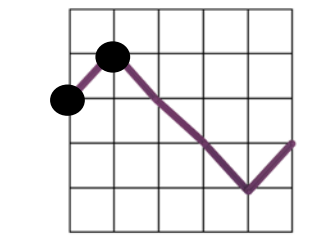


Student connects points on graph with wax-coated yarn sticks.

INSTRUCTOR: Provide student with wax-coated yarn sticks cut or folded to appropriate length.

STUDENT: Student places end of Ang-Leg or wax-coated yarn stick on one point and places to connect other point on a graph.

EXAMPLE 3



Student connects points on graph with Ang-Legs.

INSTRUCTOR: Place connected purple Ang-Legs on workmat, anchoring first Ang-Leg diagonally across the first square at first data point. Each Ang-Leg connection point will roughly correspond to a point on the graph. Anchor as needed while student is placing the Ang-Legs. When each connected Ang-Leg is placed, give student one large dot sticker at a time to place on each Ang-Leg connecting point.

STUDENT: Student places connected Ang-Legs on data points on workmat graph and places dot sticker on top of each Ang-Leg connecting point to show graph points.

EXAMPLE 4



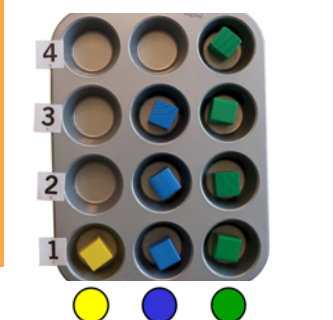
Student uses a switch, Hitch, and digital manipulatives to make a graph.

INSTRUCTOR: Connect a Hitch and Jelly Bean to computer. Access the Equals Technology Lesson Center. Open switch access (SA) folder and locate Workmat (WM 4 graph). Place images in widget for creating a pictograph or bar graph. Use directions provided on Members Only near the ETLC link for more information, if needed.

STUDENT: Student uses the switch to select and place images to create a pictograph or bar graph.

Play Video

EXAMPLE 5

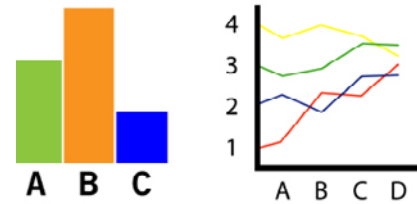


Student uses a muffin tin to make an object graph.

INSTRUCTOR: Provide student with muffin tin and counters or cubes.

STUDENT: Student places manipulatives into the muffin tin to make an object graph to show data.

graph (2 of 2)



EXAMPLE 6

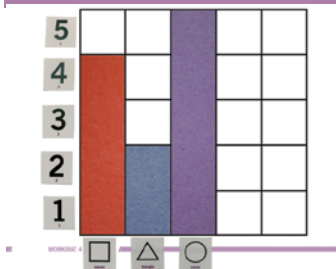


Student places data on a graph within wax-coated yarn stick borders.

INSTRUCTOR: Make borders with wax-coated yarn sticks on a grid for a pattern or bar graph for student.

STUDENT: Student places objects within the borders to make a pattern or bar graph.

EXAMPLE 7



Student places pieces of precut construction paper to make a bar graph.

INSTRUCTOR: Provide student with strips of construction paper, cut to the correct size to match amounts of data on graph.

STUDENT: Student chooses correctly sized strip to match amounts, then places or fastens paper strips to graph to display data on a bar graph.

EXAMPLE 8

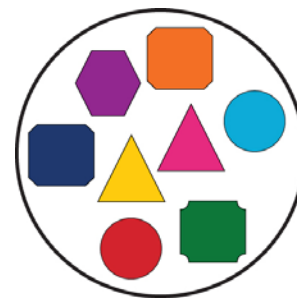


Student activates the Step-by-Step to make a graph.

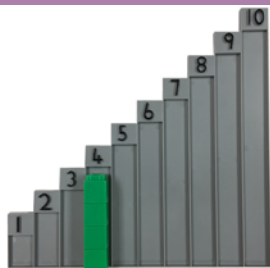
INSTRUCTOR: Record counting sequence to the Step-by-Step as the student watches. Allow student time to practice. As student activates the Step-by-Step, build bar graph by shading in boxes. Show data chart and point to first column or row (depending on the orientation of the graph).

STUDENT: Student activates the Step-by-Step to state amount in each data set.

group (1 of 2)



EXAMPLE 1



Student groups objects with the stacked number line.

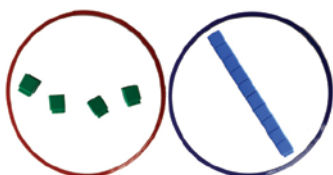
INSTRUCTOR: Provide stacked number line and connecting cubes.

STUDENT: Student matches and places connecting cubes on specified amount on the stacked number line.

Option: provide assortment of connecting cube rods with three different amounts.

Option: student places each rod on stacked number line to check the amount, then places and identifies the desired amount.

EXAMPLE 2

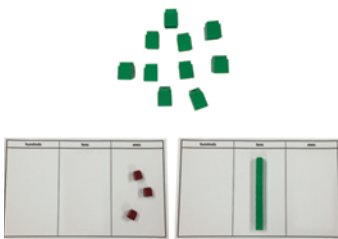


Student uses sorting circles to group sets of tens and ones.

INSTRUCTOR: Provide two sorting circles for student. Create rods of 10 connecting cubes for student to group.

STUDENT: Student uses the sorting circles to group tens and ones.

EXAMPLE 3



Student uses 10-frame box to group a set of ten.

INSTRUCTOR: Teacher provides student with connecting cubes and 10-frame box.

STUDENT: Student places manipulatives in 10-frame box to group a set of ten.

EXAMPLE 4



Student groups counters on a 10-frame.

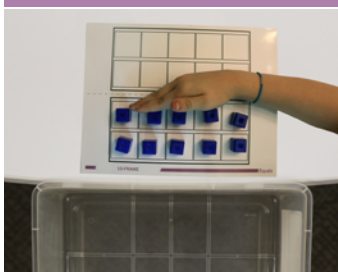
INSTRUCTOR: Show how to place each counter into the 10-frame (top row, then bottom row, left to right).

STUDENT: Student places counters into a 10-frame (top row, then bottom row, left to right).

Option: Show how to place leftover ones in a 10-frame when grouping (top row, then bottom row, left to right).

Option: Student places leftover ones correctly (top row, then bottom row, left to right).

EXAMPLE 5



Student counts and places counters into a bag or container to group them.

INSTRUCTOR: Provide student with counters, 10-frame, and a zipper bag or small container.

STUDENT: Student counts a set of counters then drops them into a bag or container to group them.

group (2 of 2)



EXAMPLE 6

Student uses ang-legs to group.

INSTRUCTOR: Provide student with ang-legs or wax coated yarn sticks.

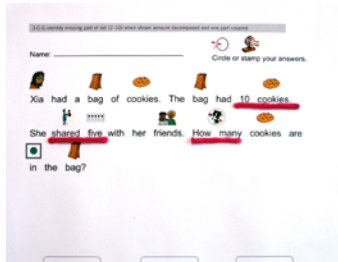
STUDENT: Student places the ang-legs or wax coated yarn sticks on top images or manipulatives to group items (manipulatives, semi-concrete representations, images on worksheets, etc.).



highlight



EXAMPLE 1



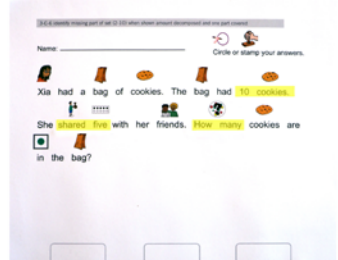
Student uses wax-coated yarn to highlight.

INSTRUCTOR: Provide wax-coated yarn sticks to student.

STUDENT: Student places the wax-coated yarn sticks under lines of text to highlight.

Option: use wax-coated yarn sticks to make circles for student so they place a circle to highlight.

EXAMPLE 2

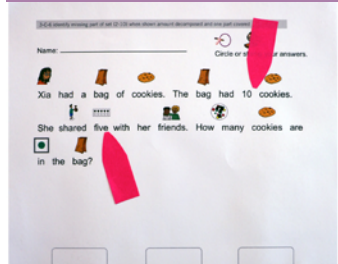


Student uses stickers or highlighter tape to highlight.

INSTRUCTOR: Provide stickers or highlighter tape to the student.

STUDENT: Student places stickers or highlighter tape on text to highlight.

EXAMPLE 3



Student uses sticky notes or arrow flags to highlight.

INSTRUCTOR: Provide sticky notes to student.

STUDENT: Student places sticky notes on a page to highlight information.

Option: write notes on the sticky notes for the student to help them remember important information or use arrow flags.

EXAMPLE 4



Student uses TalkingBrix to highlight.

INSTRUCTOR: Provide student with TalkingBrix. Record a fact from the problem on each as the student watches. Allow student time to practice.

STUDENT: Student chooses the fact to highlight by activating the TalkingBrix.

EXAMPLE 5

The boy ate 2 pies.

The boy ate 3 pies.

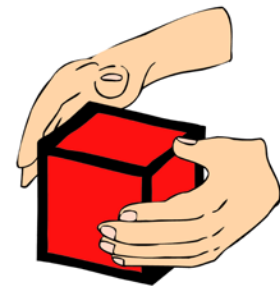
The boy ate 4 pies.

Student chooses the sentence they would like to highlight.

INSTRUCTOR: Provide sentence options from problem to student on strips of paper (typed or written) or on board. Point to each choice, if needed.

STUDENT: Student chooses the fact from the problem using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

hold



EXAMPLE 1



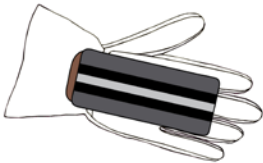
Student uses a tool with a handle to hold up fingers or hold an object.

INSTRUCTOR: Attach object(s) to hanger with clips, plastic surface, e.g. lightweight cutting board with handle holes.

STUDENT: Student holds the object attached to tool or object with handle.

Option: for holding up fingers, fasten 10-frame card or number set card with correct amount.

EXAMPLE 2



Student holds object secured to a glove or mitten.

INSTRUCTOR: Fasten rough-side hook and loop material to the palm of a glove or mitten and soft-side to object. Assist student in putting on glove/mitten. Secure object to palm of hand.

STUDENT: Student puts glove on and holds object.

EXAMPLE 3



Student holds objects placed in zipper bag or secured with clear, heavy tape.

INSTRUCTOR: Place object(s) in plastic bag, fasten to cardboard backing, if needed to make it visible. Secure the bag to a lap tray, table, or slanted surface.

STUDENT: Student holds or touches plastic bag with object or object between layers of clear tape.

Option: place smaller objects between two layers of clear mailing tape and secure.

EXAMPLE 4

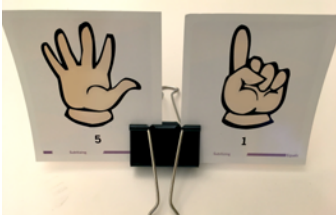


Student holds cards for a game in a baseball card album.

INSTRUCTOR: Place student's hand of cards in baseball card album sleeves inside a 3-ring binder or album with spaces between. Point to each choice, if needed.

STUDENT: Student closes cover of album or binder to hide cards from the other players. Student chooses using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 5



Student chooses from cards held in binder clip, placed on lap tray or table.

INSTRUCTOR: Provide student with two card choices in one extra large binder clip placed on lap tray or table (press down on silver handles until it is steady on the surface). Point to each choice, if needed.

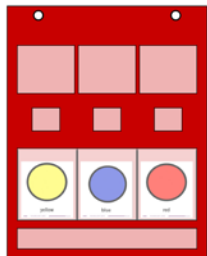
STUDENT: Student indicates card choice for game using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

Option: use one clip per card and spread apart.

identify (1 of 3)



EXAMPLE 1



Student chooses name, vocabulary card, or pic-symbol to identify.

INSTRUCTOR: Show three choices in pocket chart and say "Show ____". Point to each choice, if needed.

Option: record "That's the one I want." on Step-by-Step

STUDENT: Student states name or chooses using eye gaze, touch, or pointing, or indicates choice as instructor points to each to identify.

Option: student indicates choice by stating "That's the one I want." with Step-by-Step.

EXAMPLE 2

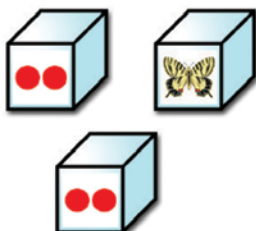


Student activates an iTalk2 or SuperTalker to identify.

INSTRUCTOR: Record choices on iTalk2 or SuperTalker with matching pic-symbols. Show object, word, action, or number and ask, "What is the name?"

STUDENT: Student activates the device to identify object, action, word, or number.

EXAMPLE 3



Student moves a block with pic-symbol to identify object.

INSTRUCTOR: Fasten pic-symbols, numbers, or words to cubes and place three choices nearby. Point to object and ask, "What is the name?"

STUDENT: Student moves the pic-symbol next to object to identify it.

EXAMPLE 4



Student activates TalkingBrix placed near object to identify it.

INSTRUCTOR: Record object name, number, or word to be identified on TalkingBrix. Place corresponding pic-symbol on each, and place near student. Point to object and ask, "What is the name?"

STUDENT: Student activates the TalkingBrix nearest the object.

EXAMPLE 5



Student uses Step-by-Step to identify objects or facts (object, action, amount) in a problem.

INSTRUCTOR: Record objects or facts (object, action, or amount) from problem on Step-by-Step as student watches. Demonstrate how to cycle through the options, then stop after chosen object/ fact. Allow practice time.

Option: when reading problem use same objects, Action Cards, or numerals to show facts concretely.

Option: record "That's the one I want." on Step-by-Step

STUDENT: Student activates the Step-by-Step and cycles through the options, stopping after the name or fact they want to identify.

Option: student indicates choice with Step-by-Step as teacher points to each.

identify (2 of 3)



EXAMPLE 6

Student claps to identify the amount in a set.

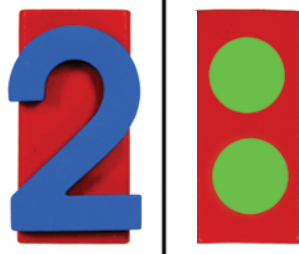


INSTRUCTOR: Provide a set of counters for the student. Record clapping or numeral names on the Step-by-Step as the student watches. Allow student time to practice.

STUDENT: Student claps to match amount or names numeral to identify amount in the set.

EXAMPLE 7

Student identifies numerals and amounts in a set using 3D flash cards.



INSTRUCTOR: Fasten magnetic foam numeral* on one side of a building block with a corresponding amount of fun foam or other material on the other side. Amounts up to 5 or 6 can be fastened to the rectangular prism, depending on the material used.

STUDENT: Student places blocks to identify amounts of counter sets placed on the table or tray.

*Use hook and loop material for fastening the magnetic numerals.

EXAMPLE 8

Student places connecting cubes on fingers to identify numeral amount.



INSTRUCTOR: Provide student with connecting cubes, and assist student as needed. Show numerals, one at a time.

STUDENT: Student places connecting cubes on fingers to identify numeral amount.

EXAMPLE 9

Student uses TalkingBrix to identify the place value of a number.



INSTRUCTOR: Record "Ones" and "Tens", and/or "Hundreds" onto each TalkingBrix while student watches. Allow student time to practice. Put in place value order (left to right). Write a numeral on the board. Point to one place for student to identify. Repeat.

STUDENT: Student activates the TalkingBrix to identify the place value name.

Option: fasten the same numeral on each TalkingBrix, and record, e.g. 333 would be recorded: three hundred, thirty, and three. Write numeral on board and point to a place. Repeat.

Option: student activates the TalkingBrix to identify or the numeral with the value of the place, e.g. three hundred, thirty, or three.

EXAMPLE 10

Student identifies an object after hearing the name.



INSTRUCTOR: Provide student with three math tools at a time in a display. Say one tool name.

STUDENT: Student chooses the object to match the name using eye gaze, touch, or point, or indicates choice as instructor points to each to identify.

identify (3 of 3)



EXAMPLE 11



Student uses Concrete Connections to identify a vocabulary word.

INSTRUCTOR: Keep past Concrete Connections in an organized space or re-create to review past vocabulary word. Provide 2-3 choices of Concrete Connections for student in a display. Show each Concrete Connection to student.

Option: place an obvious foil as one of the choices, e.g. a lunch box or a bracelet, etc. Point to each choice, if needed.

STUDENT: Student explores the choices and chooses one to identify a vocabulary word using eye gaze, touch, or pointing, or indicates choice as instructor points to each to identify.

EXAMPLE 12



Student uses tactile clues to identify numerals, signs, and symbols.

INSTRUCTOR: Fasten wax-coated yarn sticks on numerals and/or signs and symbols. Place three choices in a display. Direct student to identify a specific numeral, sign, or symbol, e.g. show me numeral 5.

STUDENT: Student explores the tactile clues and identifies the numeral, sign or symbol by indicating choice.

EXAMPLE 13



Student uses magnetic numerals to identify an amount.

INSTRUCTOR: Provide student with a set of counters. Place 2-3 choices of magnetic numerals in a display.

STUDENT: Student counts the set. Student explores the magnetic numerals and chooses one numeral to identify the amount.

EXAMPLE 14

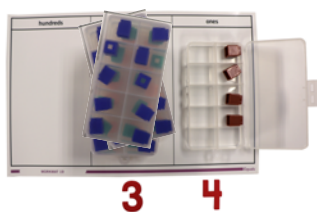


Student uses building blocks to identify three-dimensional shapes.

INSTRUCTOR: Provide student with building blocks in a display.

STUDENT: Student chooses a building block to identify a three-dimensional shape, e.g. student is shown a can and asked to identify the shape. Student chooses a cylinder from the building blocks.

EXAMPLE 15



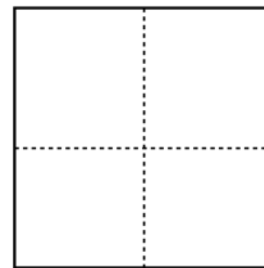
Student uses 10-frame boxes to identify 1-, 2-, and 3-digit numbers.

INSTRUCTOR: Provide student with 10-frame boxes, connecting cubes, magnetic numerals, and Workmat 19. Place connecting cubes in box.

Option: place or have student place corresponding magnetic numerals below the Workmat.

STUDENT: Student places 10 frame boxes on Workmat 19 to identify 1-, 2-, and 3-digit numbers.

join (1 of 2)



EXAMPLE 1

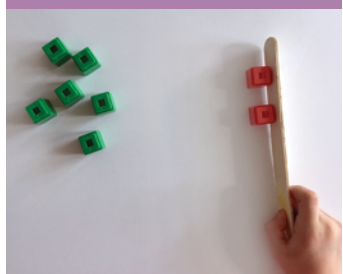


Student uses TalkingBrix to designate location to join sets.

INSTRUCTOR: Place two sets apart on the table. Record "Join the set here" on each TalkingBrix while student watches. Allow student time to practice. Place each on the table in different locations. Join the sets at the location student chooses.

STUDENT: Student activates one TalkingBrix at the preferred location for joining sets.

EXAMPLE 2



Student uses a ruler to join sets.

INSTRUCTOR: Place a ruler or similar objects in student's hand or near hand.

STUDENT: Student holds the ruler and sweeps to join sets.

Option: provide hand under hand/arm support to join sets in desired location.

Option: fasten soft-side hook and loop material at back of ruler and rough-side on glove. Place glove on student's hand and place ruler there.

EXAMPLE 3



Student uses a MathLine to join parts of set.

INSTRUCTOR: Attach manipulatives to a MathLine and separate the set.

STUDENT: Student slides the manipulatives on the MathLine to join the set.

EXAMPLE 4



Student joins large amounts secured in zipper bags.

INSTRUCTOR: Provide student with two zipper bags or clear containers with large amount inside each.

STUDENT: Student moves the bags together to join the large amounts.

Note: this is helpful for containing large sets and allows student the chance to look at the set in an organized way.

EXAMPLE 5



Student separates and joins parts in a zipper bag with a dividing line.

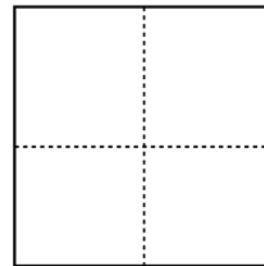
INSTRUCTOR: Fasten a piece of tape or wax-coated yarn stick on outside of a zipper bag for a dividing line. Place objects in the bag, one set on each side of the line.

STUDENT: Student joins a separated set by picking up the bag and shaking contents.

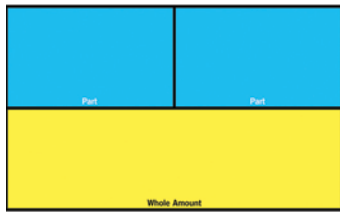
Option: secure bag on the table.

Option: student moves one set from one side to the other across the dividing line.

join (2 of 2)



EXAMPLE 6



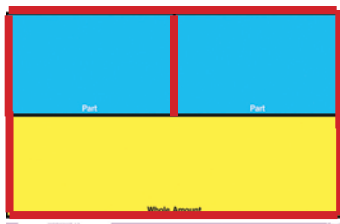
Student moves objects to join using Workmat 13.

INSTRUCTOR: Place two sets of counters, one in each blue **Part** on Workmat 13.

STUDENT: Student moves both sets of counters to the yellow **Whole Amount** on the workmat to join the sets.

Option: fasten a border of wax-coated yarn sticks or Ang-Legs to bottom line of the Whole Amount rectangle to help keep objects in place.

EXAMPLE 7



Student uses a modified workmat to join sets.

INSTRUCTOR: Attach wax-coated yarn sticks or Ang-Legs to Workmat 13 to provide student with tactile borders.

STUDENT: Student uses the tactile borders to organize counters in the **Parts** of the Workmats and join them in the **Whole Amount**.

EXAMPLE 8



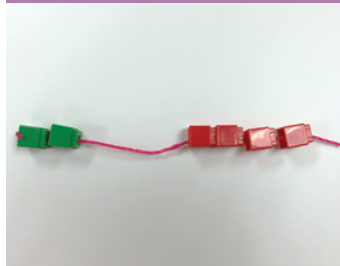
Student joins balls of play dough.

INSTRUCTOR: Place balls of play dough in a zipper bag.

STUDENT: Student smashes, stomps on, or rolls over play dough to join it.

Note: this example shows the effects of joining sets in a broad manner. Two small balls are joined into one larger ball.

EXAMPLE 9



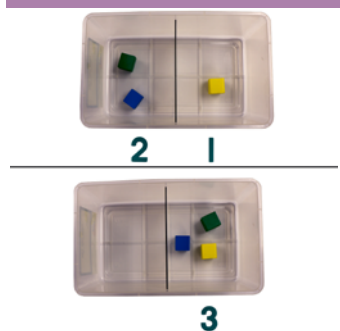
Student uses string and beads to join sets.

INSTRUCTOR: String beads into two sets. Anchor the ends of the string and separate the set.

STUDENT: Student moves the beads or connecting cubes to join the sets.

Option: use wax-coated yarn and connecting cubes.

EXAMPLE 10



Student uses a container with compartments to join sets.

INSTRUCTOR: Provide student with a container with two compartments. Place manipulatives to be joined into separate sets in each compartment.

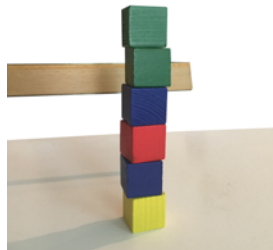
STUDENT: Student moves manipulatives to one compartment to join the set.

Optional: label sets with correct numerals.

knock down



EXAMPLE 1



Student uses a ruler to knock down a tower.

INSTRUCTOR: Place a ruler in or near student's hand.

STUDENT: Student uses the object to knock down the tower.

Option: provide hand under hand/arm support to knock down tower.

Option: fasten soft-side hook and loop material at back of ruler and rough-side on glove. Place glove on student's hand and place ruler on glove.

EXAMPLE 2



Student uses a ball to knock down the tower.

INSTRUCTOR: Place a ball in or near student's hand.

STUDENT: Student pushes or throws the ball at the tower to knock it down.

Option: provide hand under hand/arm support to knock down tower.

EXAMPLE 3



Student will use an accessible toy to knock down the tower.

INSTRUCTOR: Connect a switch to an accessible toy, e.g. Penguin Race, Pudgy the Piglet, Pretty Poodle, etc. Place the switch near the student and the toy near the tower.

STUDENT: Student activates the switch to make the Accessible Toy move and knock down the tower.

EXAMPLE 4

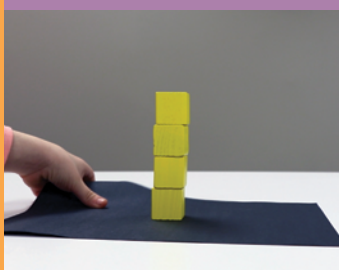


Student will use a switch, PowerLink, and hair dryer to knock down the tower.

INSTRUCTOR: Connect a hair dryer to the PowerLink, and place it near the tower. Then connect a switch to the PowerLink and place it near the student.

STUDENT: Student activates the switch to turn the hair dryer on. The wind from the hair dryer knocks down the tower.

EXAMPLE 5



Student pulls paper to knock down a tower.

INSTRUCTOR: Place a sheet of paper or place mat on the table before building a tower.

STUDENT: Student builds a tower. Student pulls on the paper to knock down the tower.

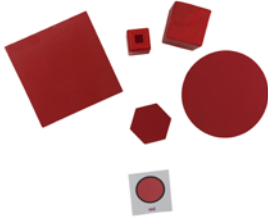
Option: fasten a piece of tape or string to the piece of paper.

Option: Student pulls on tape or string fastened to the paper.

label

XXXXXX

EXAMPLE 1



Student labels an object with a pic-symbol.

INSTRUCTOR: Provide pic-symbols and sticky tack to label objects or positions.

STUDENT: Student places a pic-symbol to label an object or its position.

EXAMPLE 2



Student places labels by objects in a pocket chart.

INSTRUCTOR: Place objects in a pocket chart and provide pic-symbols for student to use for labels.

STUDENT: Student chooses and places a pic-symbol to label each object in the pocket chart.

EXAMPLE 3



Student activates a switch to label an object.

INSTRUCTOR: Record the names of different objects to a QuickTalker 7 while student watches. Allow student time to practice. Show object for the student to label. Repeat with each object.

STUDENT: Student activates the message location on QuickTalker to label each object presented.

EXAMPLE 4

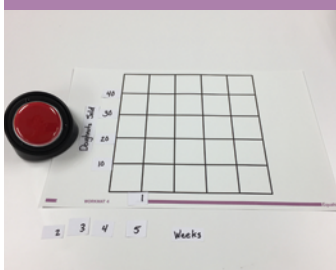


Student uses TalkingBrix as audio labels.

INSTRUCTOR: Record the names of objects on the TalkingBrix while student watches. Allow student time to practice. Give to student.

STUDENT: Student places the TalkingBrix by the correct object or activates it to label the object.

EXAMPLE 5



Student labels a graph.

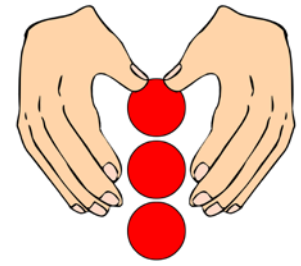
INSTRUCTOR: Write labels for student on paper and place sticky tac on back or use plain white labels.

Option: Record “put it here” on the Step-by-Step communicator while student watches. Allow student time to practice.

STUDENT: Student fastens labels on graph.

Option: student activates the Step-by-Step as a helper shows location options to choose.

line up



EXAMPLE 1



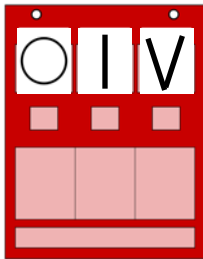
Student uses a ruler to arrange objects in a line.

INSTRUCTOR: Provide a ruler for student.

Option: fasten a yard stick on the table perpendicular to student's body. The instructor places a ruler in student's hand and guides or supports arm or hand from underneath to sweep against the yardstick.

STUDENT: Student uses the ruler to sweep objects into a line.

EXAMPLE 2

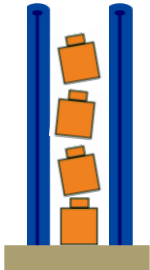


Student selects an arrangement option to demonstrate how to line up.

INSTRUCTOR: Place three arrangement options (circle, line-up, and V-shape) in the pocket chart. Point to each choice, if needed.

STUDENT: Student selects the arrangement to use to line up objects using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 3



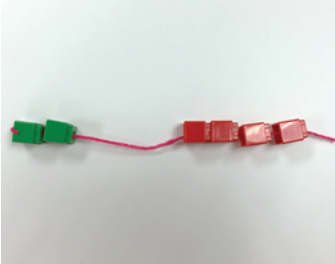
Student uses Ang-Legs to corral connecting cubes.

INSTRUCTOR: Place two parallel Ang-Legs placed 1" apart on table. Fasten bottom end of Ang-Legs with masking tape.

Option: adjust measurement between Ang-Legs for use with alternate counters.

STUDENT: Student uses the Ang-Legs as a visual guide and places connecting cubes between them to line up.

EXAMPLE 4

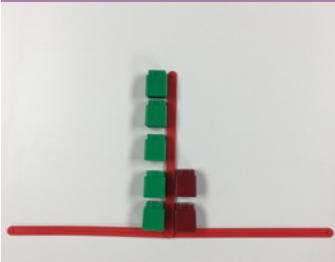


Student uses wax-coated yarn sticks to line up connecting cubes.

INSTRUCTOR: String connecting cubes onto wax-coated yarn stick and fasten one or both ends to table or lap tray. Spread connecting cubes apart.

STUDENT: Student pulls the wax-coated yarn or moves the connecting cubes together to line them up.

EXAMPLE 5



Student uses a tactile cue to line up counters and compare them.

INSTRUCTOR: Fasten Ang-Legs or wax-coated yarn sticks on table in upside down "T" shape.

Note: if lining up more than one group, more lines will be needed.

STUDENT: Student places a group of counters to be lined up on each side of the "T" and uses center line as a guide. Student compares the amounts.

listen (1 of 2)



EXAMPLE 1



Student sits close to instructor.

INSTRUCTOR: Arrange the classroom so student can see materials close up. Pass around materials when appropriate or use Poster cards when Theme poster is used.

Option: ask student to hold an object, pass out objects, answer a question, give an opinion, or point to requested objects to keep them engaged.

STUDENT: Student sits near instructor and materials.

Option: student participates as asked by the instructor to remain on task and engaged.

EXAMPLE 2

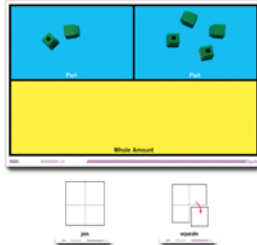


Student holds object related to lesson and relates it to the discussion.

INSTRUCTOR: Provide a related math object, tools, or set of counters in a small bag for student to hold and remain seated and on-task. Acknowledge and interpret student's interaction with object during lesson or discussion as a contribution.

STUDENT: Student holds math object related to lesson to stay put. Student shows, touches, or eye-gazes object during lesson to communicate about math.

EXAMPLE 3



Student restates or indicates object or pic-symbol to reflect what was said.

INSTRUCTOR: Provide pic-symbols, cards, and lesson materials on the table. Point to each choice, if needed.

Note: attempts to communicate are acknowledged (and interpreted as needed) by the instructor.

STUDENT: Student restates what the instructor has said verbally, using eye gaze, touch, pointing or indicates choice as instructor points to each.

EXAMPLE 4



Student directs attention to the discussion or demonstration.

INSTRUCTOR: Ask student to help. Record directions or attention-getter for the class on the Step-by-Step communicator. Bring the student into the lesson by asking student to give directions or get the group's attention.

Option: focus on student's interest area by using related manipulatives or their name in a problem.

STUDENT: Student refocuses on lesson by taking on a leadership role, giving directions, helping the instructor, or redirecting the group.

Option: student shows more interest in math lesson when interest area or name is temporarily brought into the lesson.

EXAMPLE 5



Student requests information be repeated or shown.

INSTRUCTOR: Record "tell me again" on the Step-by-Step communicator while student watches. Allow student time to practice. Respond to student by repeating what was just said.

Option: record "I want to see" on Step-by-Step. Respond to student by showing the picture or object to the student.

STUDENT: Student activates the Step-by-Step to request information to be repeated.

Option: student activates the Step-by-Step to request to see a picture or object close up.

listen (2 of 2)



EXAMPLE 6



Student uses a Step-by-Step communicator to listen to directions.

INSTRUCTOR: Record student directions, one at a time, to the Step-by-Step while student watches. Allow student time to practice.

STUDENT: Student activates the Step-by-Step to listen to directions one at a time. Student can repeat the directions as often as needed.

look (1 of 2)



EXAMPLE 1

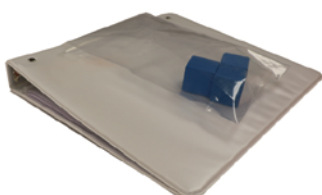


Student activates BIGmack to ask to see the object.

INSTRUCTOR: Record “show the picture” or “I want to see” on BIGmack and fasten matching pic-symbol while student watches. Allow student time to practice.

STUDENT: Student activates the BIGmack to see the picture or object close up.

EXAMPLE 2



Student looks at object secured near the student.

INSTRUCTOR: Secure object to slant board, 3-ring binder, lap tray or table. For objects that are small or difficult to manipulate, fasten to a hard backing or between layers of clear mailing tape and/or place in plastic zipper bag.

STUDENT: Student holds and looks at object secured or in bag. Some students may feel an object as a way of looking at it.

EXAMPLE 3



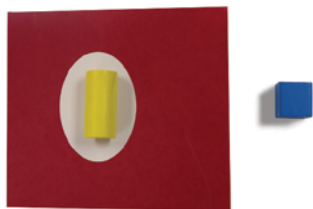
Student turns on a light to see an object more clearly.

INSTRUCTOR: Connect a switch to a flashlight using Dual Switch Latch and Timer and battery adapter.

STUDENT: Student activates the switch to turn on the light to see it or to call attention to a picture or object.

Option: Use a lamp and a PowerLink.

EXAMPLE 4



Student uses a focus window to focus attention on a visual.

INSTRUCTOR: Place focus window on one object to help student focus.

STUDENT: Student looks at objects in focus window.

EXAMPLE 5

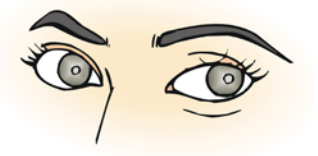


Student uses a tablet or document camera to magnify text or objects.

INSTRUCTOR: Instructor mounts the tablet above the text or objects that need to be magnified. Turn on the camera, and place materials underneath.

STUDENT: Student uses the screen to look at objects that may otherwise be too small.

look (2 of 2)



EXAMPLE 6

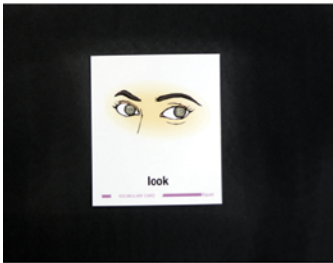


Student activates the TalkingBrix to look at a poster.

INSTRUCTOR: Record a description of a photo or illustration on a poster on each of the TalkingBrix while student watches. Allow student time to practice. Place TalkingBrix at the matching locations on the poster.

STUDENT: Student activates the TalkingBrix to hear a description of a picture on a poster and looks at it.

EXAMPLE 7

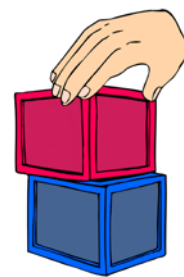


Student looks at an object on a contrasting background.

INSTRUCTOR: Place object or picture on a contrasting background, e.g. place Vocabulary card on a black piece of construction paper.

STUDENT: Student looks at the material on the contrasting background to see the object or picture more easily.

make (1 of 3)



EXAMPLE 1



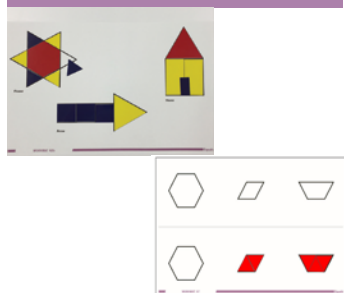
Student uses a switch, Hitch, and digital manipulatives to make a pattern.

INSTRUCTOR: Connect a Hitch and Jelly Bean to computer. Access the Equals Technology Lesson Center. Open switch access folder and locate Workmat "WM 4 pattern". Place images in widget for creating a pattern. Use directions provided on Members Only near the ETLC link for more information, if needed.

STUDENT: Student uses the switch or touchscreen to select shapes or blocks for a pattern or design.

Option: Touchscreen access to computer.

EXAMPLE 2



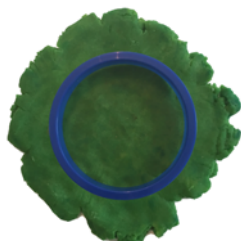
Student places shapes to make a design or new shape with a visual cue.

INSTRUCTOR: Provide Workmats for making shapes: 33, 37, 43a, 43b or making designs: 34a, 34b, 42a, 42b.

STUDENT: Student moves shapes within workmat shape outlines to make a design or new shape.

Option: fasten wax-coated yarn stick at top edge as a border before next shape is placed.

EXAMPLE 3



Student uses clay and cookie cutters to make a shape.

INSTRUCTOR: Provide shape cookie cutters and clay. Place cookie cutter on top of clay rolled or pressed flat.

STUDENT: Student chooses a shape cookie cutter. Student presses down on cookie cutter to make shape.

EXAMPLE 4

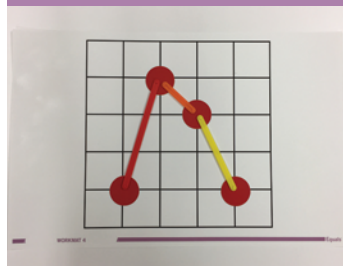


Student uses the Step-by-Step to tell how to build a tower or rod.

INSTRUCTOR: Record "up" on the Step-by-Step for the student while student watches. Allow student time to practice.

STUDENT: Student activates the Step-by-Step to tell partner to build the tower up.

EXAMPLE 5



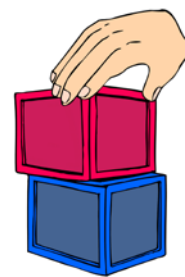
Student uses circle counters and Ang-Legs to make a line graph.

INSTRUCTOR: Provide student with Workmat 4, circle counters, and Ang-Legs to plot data and make a line graph.

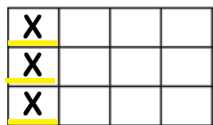
STUDENT: Student uses circle counters to plot points and connects points with Ang-Legs to make a line graph.

Option: use wax-coated yarn sticks instead of Ang-Legs.

make (2 of 3)



EXAMPLE 6



3 x 4



Student makes a model by stamping or placing X's or foam tiles.

INSTRUCTOR: Highlight lines on large square graph paper for stamping X's into an array, first marking the start of each row, then the remainder of the columns. Option: highlight all rows and columns. Option: make a grid with wax-coated yarn sticks with squares large enough for an X stamp. Place on paper for stamping. Option: place Workmat 4 or 29 on table. Student places X's made from wax-coated yarn sticks or uses foam tiles.

STUDENT: Student counts number of rows while stamping or placing X's in first space in each row of the first column. Student counts number of columns while stamping/placing X's in each one, making sure to count the column already stamped that marked the first of each row.

EXAMPLE 7



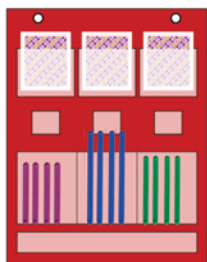
Student uses directions on the Step-by-Step to make a shape, picture, etc.

INSTRUCTOR: Record directions on the Step-by-Step communicator one step at a time while student watches. Allow student time to practice.

Note: record "you are finished" on the last step.

STUDENT: Student activates the Step-by-Step then follows the direction. After each step, the student activates the Step-by-Step to hear the next step before proceeding.

EXAMPLE 8



Student chooses Ang-Legs to make a shape.

INSTRUCTOR: Place Ang-Legs of different sizes into the pocket chart. Build the shape as the student chooses Ang-Legs.

STUDENT: Student chooses one piece at a time by touch, eye gaze, or point to direct instructor or peer to make the shape.

Option: student indicates choice as instructor points to each.

EXAMPLE 9



Student uses TalkingBrix to make an auditory pattern.

INSTRUCTOR: Record words or sound effects to TalkingBrix, e.g. clap, stomp, beep, bark, meow while student watches. Allow student time to practice.

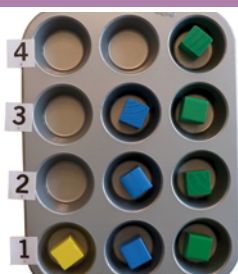
STUDENT: Student activates the TalkingBrix to make an auditory pattern.

EXAMPLE 10

Student uses a muffin tin to make an object graph to show data.

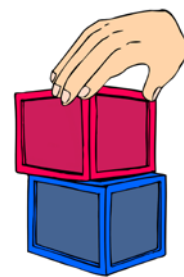
INSTRUCTOR: Provide student with muffin tin and counters or cubes.

STUDENT: Student places manipulatives into the muffin tin to make an object graph to show data.



Play Video

make (3 of 3)



EXAMPLE 11



Student uses wax-coated yarn sticks as a guide to make a graph or pattern.

INSTRUCTOR: Make borders with wax-coated yarn sticks on a grid for a pattern for student to create.

STUDENT: Student places objects within the borders to make a pattern.

EXAMPLE 12



Student makes a pattern with building blocks using contrasting colors.

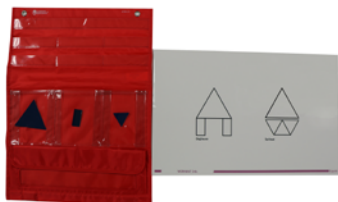
INSTRUCTOR: Provide student with building blocks with contrasting colors, e.g. blue & yellow or two different shapes to make a pattern.

STUDENT: Student uses the blocks to make a pattern.



Option: add texture with yarn sticks or hook and loop material to one color or one shape of blocks for a tactile cue.

EXAMPLE 13



Student uses pocket chart to make a shape design on workmat.

INSTRUCTOR: Provide student with a Shape Workmat. Place shapes in pocket chart.

STUDENT: Student chooses shapes, one at a time, to make a new shape on the Shape Workmat.

EXAMPLE 14



Student uses contrasting objects to make a pattern.

INSTRUCTOR: Provide student with highly contrasting objects to use to make a pattern, e.g. building blocks and circle counters.

STUDENT: Student creates a pattern with the materials.

EXAMPLE 15



Student uses modified circle counters to make a pattern.

INSTRUCTOR: Add tactile cue shapes or symbols to circle counters with wax coated yarn sticks.

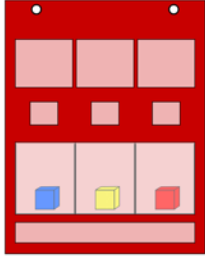
STUDENT: Student touches the symbols that have been added to the circle counters to make a pattern.

Option: if only providing student with two choices, make one symbol on yellow side and the other on the red side.

match (1 of 2)



EXAMPLE 1



Student matches from three choices.

INSTRUCTOR: Place three choices in pocket chart. Show object, pattern, or numeral to match. Point to each choice, if needed.

STUDENT: Student looks at object, pattern, or numeral to match and chooses using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 2



Student activates BIGmack communicator to match.

INSTRUCTOR: Record “It’s a match!” on the BIGmack communicator while student watches. Allow student time to practice. Show object to match, then slowly show three choices.

STUDENT: Student activates BIGmack to identify the match when two matching objects are shown.

EXAMPLE 3



Student activates the iTalk2 communicator to match objects.

INSTRUCTOR: Fasten “Match” and “No match” pic-symbols on each button of the iTalk2 communicator and record “It’s a match!” and “No match” to corresponding buttons while student watches. Allow student time to practice. Show two objects and ask “Do they match?”

STUDENT: Student activates iTalk2 communicator to say “It’s a match” or “No match”.

EXAMPLE 4



Student activates the All-Turn-It spinner to match objects.

INSTRUCTOR: Fasten pic-symbols, cards or objects randomly on white side of large overlay on All-Turn-It spinner. Show one object and ask student to find the match.

STUDENT: Student spins randomly to select and indicates if it matches the card shown by the instructor.

EXAMPLE 5



Student compares objects to find a match.

INSTRUCTOR: Place one of three choices into each colored bowls. Provide student with an object that matches one of the objects in a bowl. Point to each choice as needed.

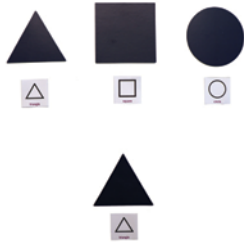
STUDENT: Student examines the object to match, then looks at choices. Student places object into the container with the match.

Option: student chooses match by using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

match (2 of 2)



EXAMPLE 6



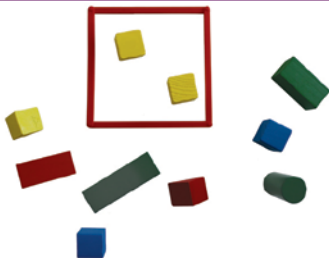
Student matches objects with corresponding pic-symbols.

INSTRUCTOR: Place choices of objects on table. Provide student with a matching pic-symbol for the object to match. Point to each choice, if needed.

STUDENT: Student compares the pic-symbol to each choice and places it by the match.

Option: student chooses match by using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 7



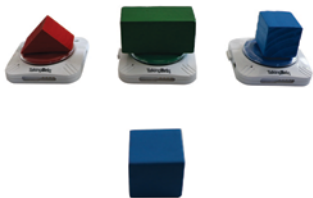
Student uses a defined space to match objects.

INSTRUCTOR: Create a square with Ang-Leg sides and fasten on the table. Place the target object inside the square. Place choices, including exact matches outside of the square.

STUDENT: Student places exact matches in the square with the original target object.

Note: matches are exact in size, shape, and color.

EXAMPLE 8



Student matches using auditory cues on TalkingBrix.

INSTRUCTOR: Fasten choices on each of three TalkingBrix. Record the name of each object on the TalkingBrix including color, e.g. "blue cube" or "cube that is blue" while student watches. Allow student time to practice. Place a target object on table (must match one of the choices).

STUDENT: Student listens to the name of each object and looks at and/or touches each. Student chooses the matching object.

measure



EXAMPLE 1

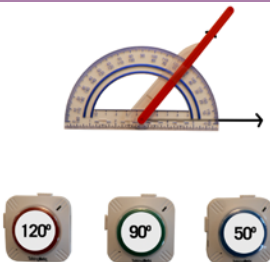


Student measures a line or straight edge with ruler and guide.

INSTRUCTOR: Fasten horizontal ruler to counting tray and fasten vertical Ang-Leg at 0 for guide; place line or straight edge at guide and show student. Place three choices of measurements in pocket chart. Point to each choice, if needed.

STUDENT: Student locates the end point and chooses the amount in inches or feet from three choices using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 2



Student measures an angle with a protractor.

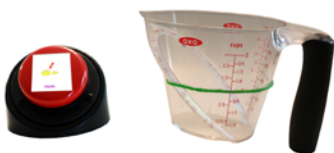
INSTRUCTOR: Fasten Ang-Leg to the protractor arm and move to match the angle. Ang-Leg extends the protractor arm to show angle more clearly.

STUDENT: Student measures the angle using the Ang-Leg as a guide.

Optional: record three angle measures on TalkingBrix while student watches. Allow student time to practice.

Optional: student activates TalkingBrix to state angle measurement.

EXAMPLE 3



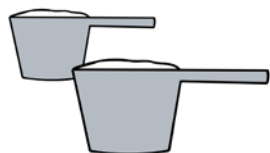
Student measures liquid in a liquid measuring cup.

INSTRUCTOR: Fasten wax coated yarn sticks to the measuring cup at the correct measurement.

STUDENT: Student tells the teacher to add more until the correct amount is in the measuring cup.

Optional: record "more" to the Step-by-Step as student watches. Allow student time to practice.

EXAMPLE 4



Student measures and levels dry ingredients in a recipe.

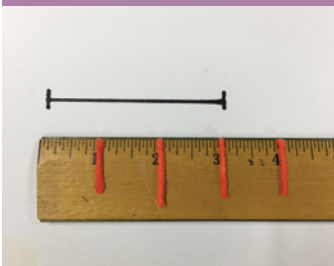
INSTRUCTOR: Provide flour, sugar, salt, or other ingredient to measure, square container lid, and secured measuring cup or spoon on table.

STUDENT: Student grasps square lid and scrapes across the top of cup so that it is level.

Option: scoop and place amount in cup or spoon and ask student to check amount. Provide three choices using more, less, and equal pic-symbols.

Option: Student chooses from choice of three pic-symbols to describe amount measured as needing more, less or if the amount present is equal to the cup or spoon measurement (level at the top).

EXAMPLE 5

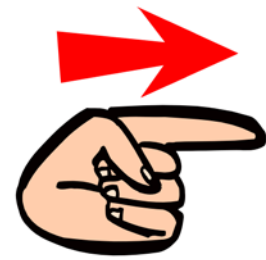


Student uses tactile clues to measure.

INSTRUCTOR: Place a wax-coated yarn stick at each appropriate unit of measurement, e.g. if measuring in inches, mark each inch, etc. Show each marked unit. If needed, place tactile cues on top of line to be measured.

STUDENT: Student touches object or line to be measured, places ruler at start, and counts tactile clues to measure.

move (1 of 2)



EXAMPLE 1



Student moves group of 10 to tens place on place value chart.

INSTRUCTOR: Snap two Ang-Legs together and fasten bottom to vertical line(s) between ones and tens on place value chart. Top Ang-Leg swings left like a gate. Add more Ang-Legs on top to make border higher.

STUDENT: Student adds ones to set in 10-frame box until it is filled. Student slides set of 10 through gate to tens place.

Option: add gate to line between tens and hundreds.

Option: when 10 10-frame boxes are filled, student moves them through the gate to hundreds place.

EXAMPLE 2



Student moves objects with MathLine tabs to count or skip-count.

INSTRUCTOR: Fasten objects to MathLine to provide organized, manageable manipulatives, concrete representation of amount, and a way for student to grasp and slide tabs. Count aloud with each slide.

STUDENT: Student moves objects attached to MathLine tabs as instructor counts.

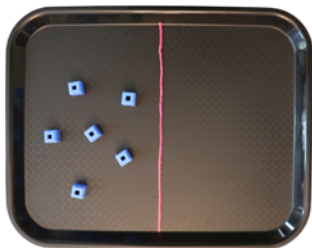
Option: record 1 to end amount plus one on Step-by-Step communicator.

Option: Student removes objects counted and places on counting tray or table.

Option: bind sets of 2's, 5's or 10's (MathLine 31) for skip counting.

Option: student counts each object as it is moved with Step-by-Step.

EXAMPLE 3



Student sweeps objects to move them to a space or container.

INSTRUCTOR: Fasten a dividing line on tray with wax-coated yarn sticks or paper strip and place objects on one side of the line.

STUDENT: Student moves objects from one side of tray to the other, or moves them to container(s) to count, sort, add, subtract, or make equal groups.

Option: place containers beneath edge of table/lap tray, or tip them sideways with opening facing sweeping motion.

EXAMPLE 4



Student asks a peer to move selected objects.

INSTRUCTOR: Record choices of objects or sets to be moved and/or location on iTalk2 or SuperTalker as student watches. Allow student time to practice. Place matching pic-symbols on message locations on device.

STUDENT: Student activates communication device to ask peer to move specific objects to a location.

Option: Record a single request on BIGmack, e.g. "Move to tens".

EXAMPLE 5



Student uses a ruler to move counters.

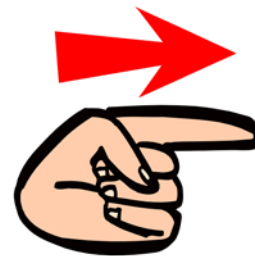
INSTRUCTOR: Place a ruler in or near student's hand and guide or support arm or hand from underneath to move objects to desired location.

STUDENT: Student holds the ruler and uses a sweeping motion to move the counters.

Option: provide hand under hand/arm support to join sets in desired location.

Option: fasten soft side hook and loop material at back of ruler and rough side on glove. Place glove on student's hand and place ruler in the glove.

move (2 of 2)



EXAMPLE 6

Student uses TalkingBrix to designate where to move objects or groups.



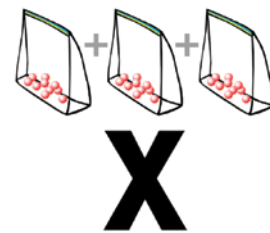
INSTRUCTOR: Record “Move it here” on each TalkingBrix as student watches. Allow student time to practice. Put them on the table in different places.

Option: record directions (up, down, under, above, etc.) for student to use to direct a helper.

STUDENT: Student activates one TalkingBrix in the desired location.

Option: student directs helper by giving simple directions.

multiply (1 of 2)



EXAMPLE 1



Student sweeps to count number sets to multiply, then counts product.

INSTRUCTOR: Record numbers from one to largest amount in equation on Step-by-Step for student to count as you: 1. place a bag for each group and 2. put objects into each bag to make equal groups.

STUDENT: Student counts amount of bags for groups and equal amounts in each group with Step-by-Step communicator.

Re-record number sequence on Step-by-Step to match product amount plus one more. Place groups on counting tray. Point to each counter in every group as student counts in continuous sequence with Step-by-Step to determine product.

When bags are completed, student sweeps one group on tray and stops for instructor to point to each object in bag as student counts in continuous sequence from bag to bag with Step-by-Step to determine product.

EXAMPLE 2



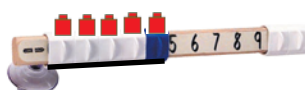
Student activates Step-by-Step communicator to skip count to multiply.

INSTRUCTOR: Record skip counting sequence on Step-by-Step communicator. Place amount of objects into bags to make equal groups to match amounts in equation as student watches. Point to or move sets as student counts.

STUDENT: Student activates Step-by-Step communicator to skip count sets as instructor points or sweeps each set and stops when instructor finishes moving or pointing to sets. The last number counted is the product.

EXAMPLE 3

$$5 \times 3 = \underline{\quad}$$



Student uses MathLine 31 with objects to multiply.

INSTRUCTOR: Count amount in each equal group as student slides tabs, e.g. five cubes. Fasten with tape, e.g. black tape. Repeat until amount of equal groups is completed, e.g. three groups.

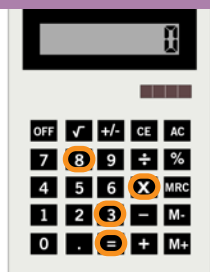
STUDENT: Student slides tabs for amount in each equal group, e.g. 3 as instructor fastens them into amount of equal groups, e.g. 4 groups.

Record number sequence to product plus one more on Step-by-Step and point as student counts, e.g. 12. Show final visible tab to check amount counted.

Student activates Step-by-Step to count the product as instructor points, e.g. 12.

Option: fasten objects on tabs.

EXAMPLE 4



Student locates numerals/symbol from equation on calculator and enters it.

INSTRUCTOR: Use wax-coated yarn sticks to frame the numerals and symbols from the equation on the calculator, e.g. $8 \times 3 =$.

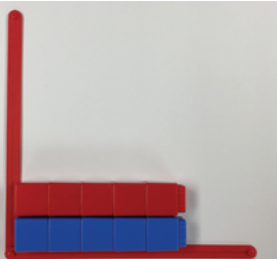
STUDENT: Student chooses the correct numeral or symbol in the order presented in the equation and presses each button, then = on the calculator.

Option: use wax-coated yarn sticks to frame the numerals/symbols.

Option: color code the numerals/symbols in the equation to match colored windows or yarn sticks.

EXAMPLE 5

Play Video



Student multiplies with an array.

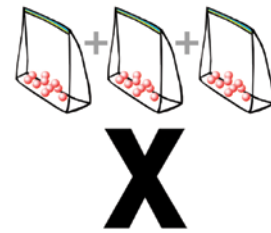
INSTRUCTOR: Fasten Ang-Legs or wax-coated yarn sticks in an "L" shape. Give student connecting cubes in sets to be multiplied, e.g. if multiplying 5×2 , give student two sets of 5 or five sets of 2.

STUDENT: Student places equal groups into rows or columns. Student counts total amount to multiply using an array.

Option: instructor connects each amount into rods after student counts amount into equal rows or columns.

Option: student counts amount into equal rows or columns and instructor connects each amount into rods.

multiply (2 of 2)



EXAMPLE 6

5	10
15	20
25	30
35	40
45	50
55	60
65	70
75	80

Student uses a modified hundreds chart to multiply.

INSTRUCTOR: Use wax-coated yarn sticks to place squares around last amount in each equal group, e.g. count 5 squares and put square around 5. Repeat with next 5 squares and put square around 10. The numeral in each square is the running total so to multiply, skip count to product, count the total amount or count the number of equal groups and state the last amount, e.g. 5 x 6 Count 6 equal groups of 5. The amount in the last square of the last group is 30.

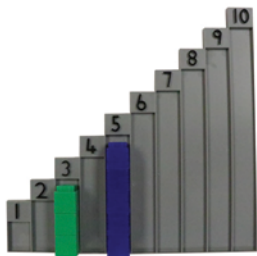
STUDENT: Student identifies and counts equal groups and says final numeral in the square of the last group, which is the product.

Option: fasten Ang-Legs to cover numerals in the group up to the amount in the square.

order (1 of 2)



EXAMPLE 1



Student orders amounts.

INSTRUCTOR: Place stacked number line and connecting cubes in amounts 1-10 on table.

Re-record number sequence 1-11 on Step-by-Step. Point to each cube as student counts in continuous sequence with Step-by-Step to determine total. Point to and name three choices on stacked number line.

Option: record "That's the one I want" on Step-by-Step.

STUDENT: Student counts amount of cubes with Step-by-Step.

Student takes, touches, or eye gazes to choose.

Option: student activates Step-by-Step to indicate choice as instructor points to each.

EXAMPLE 2



Student states how to order sets or numerals.

INSTRUCTOR: Place manipulatives in sets to be ordered or provide magnetic numerals and line up in a row. Record "move right" and "move left" on the iTalk2 as student watches. Allow student time to practice. Point to each set or numeral and ask the student what you should do. Follow the student's directions. If student does not respond, move onto another numeral or set.

STUDENT: Student activates the iTalk2 to say "move left" or "move right" until all sets or numerals are ordered correctly.

EXAMPLE 3



Student indicates location to order numeral or amount.

INSTRUCTOR: Arrange numerals or sets in a row on the table in order, leaving space between each. Show student a set or numeral to be placed in order. Record "there" to the Step-by-Step as student watches. Allow student time to practice. Move each set or numeral to each possible location and wait for a response.

STUDENT: Student activates the Step-by-Step to say where the set or numeral should be placed in order.

EXAMPLE 4



Student orders magnetic numerals.

INSTRUCTOR: Provide student with magnetic numerals.

Option: Ask "Which is the first numeral in number order?" Show choice of two numerals about arms length apart. Repeat with "Which numeral is next in number order?"

Option: provide a non-aluminum cookie sheet so the magnetic numerals stick to it.

STUDENT: Student slides to place the provided numerals in order.

Option: student chooses by touch, point, eye gaze, or indicates choice as instructor points to each.

EXAMPLE 5



Student orders numerals on blocks.

INSTRUCTOR: Fasten numeral pic-symbols to building blocks with clear tape, one numeral per block.

Option: ask "Which is the first numeral in number order?" Show choice of two numerals about arms length apart. Repeat with "Which numeral is next in number order?"

Option: fasten two-sided tape on surface to secure blocks that are placed or fasten a wax-coated yarn stick border at top to stop blocks as they are slid into place.

STUDENT: Student slides to place the building blocks in number order.

Option: student chooses by touch, point, eye gaze, or indicates choice as instructor points to each.

order (2 of 2)



EXAMPLE 6



Student uses TalkingBrix to order.

INSTRUCTOR: Record number to TalkingBrix as the student watches. Allow student time to practice. Place matching pic-symbol on top.

STUDENT: Student activates the TalkingBrix to hear the number, and places the TalkingBrix to order.

EXAMPLE 7



Student uses 10-frame boxes to order.

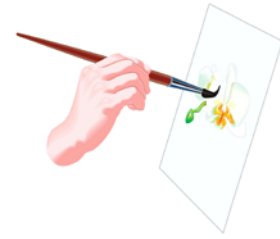
INSTRUCTOR: Place connecting cubes in 10-frame boxes and fasten matching numeral to the lid. Leave lid open.

STUDENT: Student moves the 10-frame boxes to order the numbers.

Note: 10-frame boxes should remain open unless there are 10 connecting cubes inside.

Play Video

paint



EXAMPLE 1



Student uses an adapted painting tool.

INSTRUCTOR: Broaden the width of a paint brush handle by wrapping adhesive back, foam weather stripping, foam pipe insulation, or soft-side hook and loop material.

STUDENT: Student grasps handle and paints.

EXAMPLE 2



Student uses a Step-by-Step communicator to paint with a friend.

INSTRUCTOR: Record a series of painting directions on the Step-by-Step communicator, one sentence per step, e.g. "paint with a different color", "paint the top", "paint the bottom", "paint the ____", etc. as student watches. Allow time for student to practice.

STUDENT: Student activates the communicator multiple times to give painting directions to a friend.

EXAMPLE 3



Student paints with an alternative painting tool.

INSTRUCTOR: Provide a variety of painting tools: easy grip sponge shapes, small paint rollers and shallow paint trays, sponge brushes, spray bottles filled with washable watercolors, or color Bingo daubers.

STUDENT: Student grasps the painting tool and applies paint to the project.

EXAMPLE 4



Student wears vinyl gloves to paint.

INSTRUCTOR: Provide vinyl glove(s) for student to spread paint. Assist student in putting on glove.

STUDENT: Student wears glove and spreads paint onto paper.

Option: put paper (flat) and paint (on top of paper) in bag and push air out. Zip the bag and seal with tape.

Option: student spreads one or more colors by pressing and moving the paint through the bag.

EXAMPLE 5



Student moves a container to paint an object with a marble.

INSTRUCTOR: Place a piece of paper on the bottom of a cardboard box. Squeeze paint onto the paper and place a marble inside.

STUDENT: Student moves and shakes the box to move the marble around to paint.

pay



EXAMPLE 1



Student sweeps money to count and pay.

INSTRUCTOR: If needed, place money on table or counter for the student to sweep a specified amount.

STUDENT: Student sweeps the required amount of money into a pile to pay.

Optional: provide student with a Step-by-Step and record a counting sequence to it. (e.g. 1 dollar, 2 dollars, 3 dollars, etc.) Allow time for student to practice.

EXAMPLE 2



Student uses a card with “tap and go” technology to pay.

INSTRUCTOR: Student would need to have a card that allows for contact-less payment.

STUDENT: Student waves or taps card on the contact-less terminal to pay.

Optional: provide student with a glove that has rough hook and loop material on it. Place soft hook and loop material on the card, but be sure it does not cover the magnetic stripe or the chip if the card has one.

EXAMPLE 3



Student uses a Step-by-Step to count dollar bills to pay.

INSTRUCTOR: Record counting sequence to Step-by-Step, be sure to include dollars, e.g. one dollar, two dollars, three dollars, etc. as student watches. Allow time for student to practice.

STUDENT: Student activates the Step-by-Step to count dollar bills.

Optional: record counting sequence for different denominations.

EXAMPLE 4



Student gives card to cashier and asks for receipt.

INSTRUCTOR: Record “May I have a receipt please?” to the Step-by-Step as student watches. Allow time for student to practice.

STUDENT: Student hands card to the cashier and activates the Step-by-Step to request a receipt.

place (1 of 2)



Play Video

EXAMPLE 1

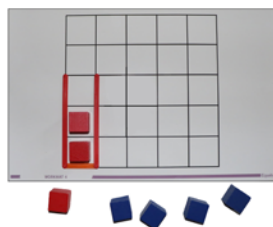


Student moves object(s) to hook and loop material to place it.

INSTRUCTOR: Fasten soft side hook and loop material under object and rough side to designated locations on surface.

STUDENT: Student moves each object to hook and loop material to stay in place.

EXAMPLE 2



Student places objects on graph, array, chart, or workmat with raised borders.

INSTRUCTOR: Fasten Ang-Legs to vertical lines on graph and at the bottom of each column.

STUDENT: Student moves an object or pic-symbol from top of column between the borders on graph to desired location.

Option: fasten two-sided tape on the correct square to place object.

Option: When student moves object or pic-symbol to desired square, it sticks to the two-sided tape.

Option: fasten pic-symbols to wooden cubes with clear tape.

EXAMPLE 3



Student chooses an object then asks a peer or instructor to place it.

INSTRUCTOR: Show three object choices and record directions for placing student's choice of object and location on BIGmack as student watches. Allow time for student to practice.

STUDENT: Student chooses object and location. Student activates BIGmack to ask peer or instructor to place the object and where to place it.

Option: record object name(s) and/or locations on iTalk2 or SuperTalker to give student more choices of objects and locations.

EXAMPLE 4



Student uses TalkingBrix to designate where an object should be placed.

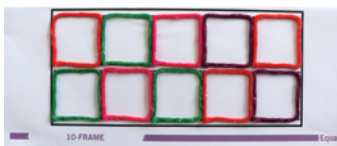
INSTRUCTOR: Record "place it here" on each TalkingBrix as student watches. Allow time for student to practice. Place TalkingBrix in different locations so the student can choose where to place the object

STUDENT: Student chooses the TalkingBrix placed in the desired location.

Option: attach a photo or pic-symbol to each TalkingBrix and place them all on the table or lap tray so student can choose a location from pictures

Option: student chooses the TalkingBrix as pictured on the TalkingBrix.

EXAMPLE 5



Student uses tactile cues to place materials on a 10-frame.

INSTRUCTOR: Fasten wax-coated yarn sticks on the borders of each box of the 10-frame. Provide manipulatives that fit between the borders.

STUDENT: Student uses the tactile cues to place manipulatives on the 10-frame (top row, then bottom row, left to right).

Option: fasten two-sided tape to help keep each manipulative in place.

place (2 of 2)



EXAMPLE 6

Student places magnetic numerals/symbols as directed

INSTRUCTOR: Provide magnetic numerals.

STUDENT: Student places the provided numerals as directed

Option: provide a non-aluminum cookie sheet so the magnetic numerals stick to it.



EXAMPLE 7

Student places building blocks with numerals as directed.

INSTRUCTOR: Fasten numeral pic-symbols to building blocks with clear tape, one numeral per block.

STUDENT: Student places the building blocks as directed.

Option: fasten two-sided tape on surface to secure blocks that are placed or fasten a wax-coated yarn stick border to stop blocks as they are placed.





EXAMPLE 1



Student activates the All-Turn-It spinner to roll dice or choose object.

INSTRUCTOR: Place dice overlay on All-Turn-It spinner or flip to white side and place sticky notes or use sticky tac to attach cards or objects.

STUDENT: Student pushes the button or activates a switch to select.

Option: fasten wax-coated yarn sticks to dots on subitizing cards. When a student spins a number, hand the card to the student to count the amount of spaces to move.

EXAMPLE 2



Student counts while a partner moves a game pawn.

INSTRUCTOR: Record numbers from dice in number order on the SuperTalker or in steps on the Step-by-Step communicator as student watches. Allow time for student to practice.

STUDENT: Student activates each SuperTalker location to count spaces while partner moves the pawn. When using the Step-by-Step, student matches pace with partner for 1-1 correspondence.

Note: number of grids displayed on the SuperTalker should be determined by the greatest number to be rolled.

Note: turn Step-by-Step to reset the sequence to begin at 1.

EXAMPLE 3



Student moves the pawn on adapted game board.

INSTRUCTOR: Slide Equals game board beneath window of a 3-ring binder cover. Fasten a piece of rough-side hook and loop material to window on each game space and a piece of soft-side to bottom of cubes or pawns. The 3-ring binder acts as a slant board so student can view the game board more easily and the hook and loop material prevents pawn from sliding or being bumped off.

STUDENT: Student moves game pawn by grasping and pushing to or placing on space.

EXAMPLE 4



Student uses the Equals Technology Lesson Center to play a game.

INSTRUCTOR: Set up a switch accessible game board with a computer switch interface and two switches. Open the ETLC Switch Access folder and choose a game board. Place image pawns in widget.

STUDENT: Student activates the switch to choose and move a game pawn to play a game.

For more details, locate the instructions on Members Only by the ETLC link.

play instrument



EXAMPLE 1



Student taps a drum or a container.

INSTRUCTOR: Provide student with a drum or a container turned upside-down. Also, provide student with a “drum stick”, e.g. unsharpened pencil, marker (you may wish to use tape to keep the cap on), or wooden block.

Optional: fasten hook and loop material on glove (rough side) and stick (soft side) for support in holding the drum stick.

STUDENT: Student taps the drum or container.

EXAMPLE 2



Student shakes maracas or tambourine.

INSTRUCTOR: Provide student with a maraca or a tambourine.

Optional: fasten hook and loop material on glove (rough side) and stick (soft side) for support in holding the instrument.

STUDENT: Student shakes the instrument (or hand if using a glove with hook and loop material) to shake the maracas.

Optional: the instrument could be attached to a foot if that method of access will be more successful.

EXAMPLE 3



Student presses or shakes a bell.

INSTRUCTOR: Provide student with a service bell or wrist bell. If using a wrist bell attach the wrist bell to the student's wrist or ankle depending on method of access.

STUDENT: Student shakes the instrument with a hand or foot or presses the service bell.

EXAMPLE 4



Student activates the Step-by-Step to play an instrument.

INSTRUCTOR: Record instrument sound to the Step-by-Step as student watches. Allow time for student to practice.

STUDENT: Student activates the Step-by-Step to play the instrument.

EXAMPLE 5



Student uses the Skoog 2.0 to play an instrument.

INSTRUCTOR: Pair the Skoog 2.0 to a computer or iPad and open the included Skoog 2.0 software or app.

STUDENT: Student squeezes, presses, rolls, twists or wobbles the Skoog 2.0 to play an instrument.

predict



EXAMPLE 1



Student chooses a prediction recorded on TalkingBrix paired with a demo.

INSTRUCTOR: Record each prediction to a separate TalkingBrix as student watches. Allow time for student to practice. Demonstrate the target action, then with the TalkingBrix, say each prediction about what might happen next. Allow student to listen to each prediction several times before asked to choose.

STUDENT: Student watches demonstration of target action, then activates the TalkingBrix to make a prediction.

EXAMPLE 2



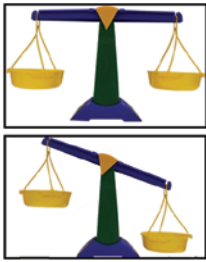
Student chooses a prediction recorded on TalkingBrix.

INSTRUCTOR: Record each prediction on a separate TalkingBrix as student watches. Allow time for student to practice and to listen to each prediction several times before asked to choose.

STUDENT: Student activates the TalkingBrix to make a prediction.

EXAMPLE 3

Play Video



Student chooses from 2 or 3 photos of possible results to make prediction.

INSTRUCTOR: Take or find pictures of three possible outcomes, e.g. target action: knock over full glass of water; possible outcome predictions: 1. empty glass with no water near it; 2. water spills and gets other objects wet; 3. there are ice cubes in the glass of water.

STUDENT: Student chooses a picture to make the prediction.

EXAMPLE 4



Student watches Internet videos of a similar action, then makes prediction.

INSTRUCTOR: Find or make videos of a similar target action and outcome before making a prediction about the outcome.

STUDENT: Student watches the video action/outcome, then views the target action and makes a prediction.

EXAMPLE 5



Student chooses prediction from concrete examples.

INSTRUCTOR: Provide student with prediction choices using concrete examples. Point to each choice, e.g. "What will happen when I join sets of two cubes? Will the set look like this one, this one, or this one?"

Option: point to each choice and describe it, e.g. "will the set turn blue, get smaller, or get bigger?"

Option: record, "That's the one I want" on Step-by-Step.

STUDENT: Student chooses a prediction by indicating a choice by pointing, eye gazing, or touching.

Option: student indicates choice as teacher points to each.

read



EXAMPLE 1



Student activates BIGmack to read numeral, word, pattern or name.

INSTRUCTOR: Record the numeral, Vocabulary word, name or pattern unit on the BIGmack as student watches. Allow time for student to practice.

STUDENT: Student activates the BIGmack to read a presented numeral, Vocabulary word, name, or pattern unit.

EXAMPLE 2



Student activates Step-by-Step to read number series, equation, or pattern.

INSTRUCTOR: Record each word, numeral, symbol (in equation), or unit in a pattern in order on the Step-by-Step communicator as student watches. Allow time for student to practice.

STUDENT: Student activates the Step-By-Step to read each word, numeral, symbol, or pattern unit in order.

EXAMPLE 3



Student activates SuperTalker to read numerals, pattern unit, and symbols.

INSTRUCTOR: Record and place matching pic-symbols on SuperTalker for numerals, words, pattern units and symbols as student watches. Allow time for student to practice.

STUDENT: Student selects and activates location to read numerals, pattern units, and/or symbols.

EXAMPLE 4



Student uses slide show presentation or e-book and switch to read.

INSTRUCTOR: Connect and set up computer, slide presentation e-book (record in narration mode), or other e-book, and Hitch switch interface, and a switch. Set up Hitch with computer functions to turn the page of the e-book (e.g. space bar or enter).

STUDENT: Student turns and reads each page of the e-book with a switch.

EXAMPLE 5



Student uses TalkingBrix to read posted signs.

INSTRUCTOR: Fasten TalkingBrix near signs in the classroom or school. Record the sign's text on the TalkingBrix as student watches. Allow time for student to practice.

STUDENT: Student activates the TalkingBrix to read signs around the classroom or school.

record (1 of 2)



EXAMPLE 1



Student activates the iTalk2 communicator to record an answer.

INSTRUCTOR: Fasten pic-symbols to iTalk2 communicator and record corresponding messages as student watches. Allow time for student to practice.

STUDENT: Student activates the iTalk2 communicator to select an answer to record.

EXAMPLE 2



Student records answer with X stamp or marker inside a focus window.

INSTRUCTOR: Fasten the paper to the work surface to keep in place. Highlight or place focus window to designate area to mark.

STUDENT: Student chooses the answer, then stamps, circles, makes an X or dot with rubber stamp or writing utensil.

EXAMPLE 3

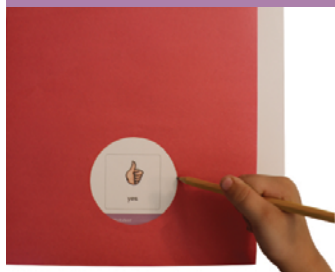


Student fastens pic-symbol, word(s), or object to record an answer.

INSTRUCTOR: Place three choices of pic-symbols, words, or objects for the student to choose. Fasten two sided tape to answer sheet. Point to each choice, if needed.

STUDENT: Student chooses using eye gaze, touch, or pointing, or indicates choice as instructor points to each. Student fastens object, pic-symbol, or word to answer sheet with or without underhand assistance.

EXAMPLE 4



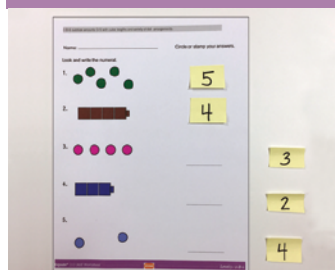
Student uses focus window as a stencil to circle an answer to record it.

INSTRUCTOR: Provide a focus window for the student to place on an answer choice. Move and place the window for the student and/or provide underhand support if needed.

Option: highlight area to be circled or filled in.

STUDENT: Student moves and places focus window on the answer. If instructor is moving the window, student indicates "this one" verbally or with device or gesture. Student traces around inside of focus window to circle an answer.

EXAMPLE 5



Student places answer on worksheet to record it.

INSTRUCTOR: Write answer choices for student on sticky notes or print a second copy of worksheet and cut up for the student, if worksheet has multiple choice options.

STUDENT: Student records answer by placing or fastening choice on worksheet.

record (2 of 2)



Play Video

EXAMPLE 6



Student records with pic-symbols, vocabulary cards, and/or index cards.

INSTRUCTOR: Provide necessary pic-symbols, vocabulary cards, or index cards for writing an equation and recording the solution, e.g. for 2×6 , provide cards for 2, 6, x, = and 12 with two distractors.

STUDENT: Student writes the equation and records solution using the provided cards.

EXAMPLE 7



Student uses a Step-by-Step or Step-by-Step Choice to record.

INSTRUCTOR: Record a series of three answer choices on the Step-by-Step communicator or Step-by-Step Choice as student watches. Allow time for student to practice.

STUDENT: Student cycles through the answers with Step-by-Step and stops right after choice to record the last spoken answer. Peer or instructor writes answer on worksheet or other space.

Note: Step-by-Step Choice allows student to play part of a message then skip over it to locate the desired choice.

EXAMPLE 8



Student uses objects to record amounts.

INSTRUCTOR: Provide student with objects to record amounts.

STUDENT: Student places the correct amount of objects on table or worksheet to indicate answer to record.

Option: after objects have been chosen, instructor provides three numeral choices paired with objects for student to choose.

Option: student chooses numeral paired with same number of objects to record.

EXAMPLE 9



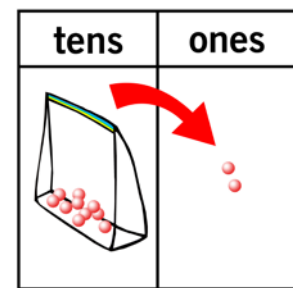
Student uses the Equals Technology Lesson Center widget to record.

INSTRUCTOR: Create problem(s) for student to solve in the Equals Technology Lesson Center with options in the widget for the student to choose and record answer on the accessible workmat. Open Switch Access folder and WM 11 for equation and numerals in Images folder. For more details, locate the instructions on Members Only by the ETLC link.

STUDENT: Student records answer with switch in the Equals Technology Lesson Center.

Option: print the web page or take a screen shot of the student's work to keep a record.

regroup



EXAMPLE 1

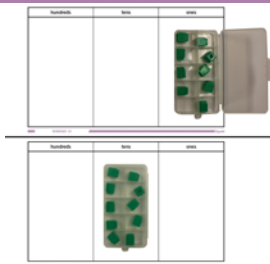


Student directs peer to regroup.

INSTRUCTOR: Record “regroup” on Step-by-Step as student watches. Allow time for student to practice.

STUDENT: Student tells peer to regroup when amount reaches a multiple of 10: 10, 100, 1,000, or 10,000.

EXAMPLE 2



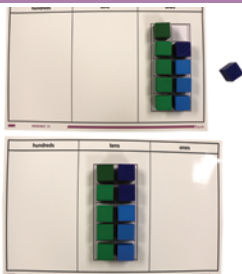
Student moves 10-frame box filled with connecting cubes to regroup.

INSTRUCTOR: Provide Workmat 19, 10-frame boxes, and connecting cubes. Place the 10-frame box in the ones place on Workmat 19. When a 10-frame box is filled with 10 connecting cubes, close the lid.

STUDENT: Student moves full 10-frame box to the tens place on Workmat 19 to regroup.

Optional: place numerals in the correct location below the workmat to show the amount in each place.

EXAMPLE 3



Student uses Student Tool 10-frames with counters to regroup.

INSTRUCTOR: Provide Workmat 19, Student Tool 10-frames, and counters. Place the Student Tool 10-frames in the ones place on Workmat 19.

STUDENT: Student moves full 10-frames to the tens place on Workmat 19 to regroup.

research



EXAMPLE 1



Student chooses what to research from a pocket chart.

INSTRUCTOR: Show picture or pic-symbol choices to represent terms or topics to research. Point to each choice, if needed.

STUDENT: Student chooses pic-symbols to represent desired content to search using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 2



Student chooses source to research from and identifies relevant information.

INSTRUCTOR: Provide books for student to use for research. Read and/or show book. Record "I can use that fact" on a BIGmack switch as student watches. Allow time for student to practice.

STUDENT: Student chooses a book and reads it or listens while it is read. Student places sticky note on a page with a relevant fact or activates a switch to identify a fact.

EXAMPLE 3



Student tells a instructor or peer about chosen research topic.

INSTRUCTOR: Record the student's choices on a QuickTalker with the phrase "I want to research..." on the first message location and options on the remaining message locations as student watches. Allow time for student to practice.

STUDENT: Student activates the QuickTalker to direct a partner what to search Online.

EXAMPLE 4



Student reads an article to research.

INSTRUCTOR: Locate book for research. Record each sentence as a step on a Step-by-Step communicator as student watches. Allow time for student to practice. Limit the number of sentences or paragraphs as appropriate for the student.

STUDENT: Student activates the Step-by-Step to read each portion of the research article.

Option: when recording, number each sentence before recording it, then provide numeral cards that match so student can choose and set aside for the research.

Option: student chooses and sets aside the numeral cards that match the sentences with facts the student wishes to use.

EXAMPLE 5

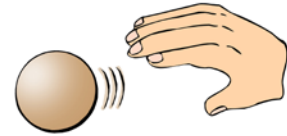


Student chooses books and other media in the media center.

INSTRUCTOR: Show three choices of books or other media at a time. Point to each choice, as needed.

STUDENT: Student chooses by using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

roll



EXAMPLE 1



Student uses a switch, PowerLink, and hair dryer to roll a lightweight object.

INSTRUCTOR: Connect a hair dryer to the PowerLink, and place it near the object. Connect a switch to the PowerLink and place it near the student.

STUDENT: Student activates the switch to turn the hair dryer on, and the wind from the hair dryer rolls the object.

EXAMPLE 2



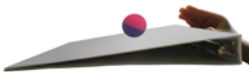
Student pulls cloth or paper placed under the object to make it roll.

INSTRUCTOR: Place the object on a cloth or piece of construction paper for student to grab.

STUDENT: Student lifts the construction paper or cloth to make the object roll.

Option: attach a craft stick or yarn to the paper or cloth for student to pull.

EXAMPLE 3



Student releases ball on a ramp to make it roll.

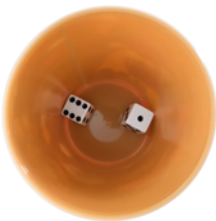
INSTRUCTOR: Create a small ramp and place the ball at the top.

STUDENT: Student releases the ball on the ramp to roll it.

Option: place and hold PVC pipe elbow as a guide to roll the ball in a particular direction.

Option: student places ball in top of PVC pipe to roll as instructor directs it.

EXAMPLE 4



Student rolls dice using a cup.

INSTRUCTOR: Place dice in a cup for student to turn over out to roll.

STUDENT: Student turns the cup over to roll the dice.

Option: fasten hook and loop material to the cup to create a loop for student to put a hand through.

EXAMPLE 5



Student uses the All-Turn-It spinner to select random dice.

INSTRUCTOR: Place large dice overlay on spinner and flip small overlay to white for rolling single die or make sure both overlays are placed with visible dice for rolling two dice.

STUDENT: Student presses orange button or attached switch to roll dice.

Option: attach switch to side port for activation

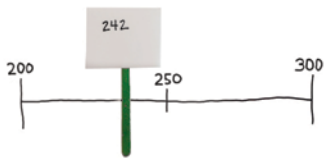
round

0 1 2 3 4 5 6 7 8 9

~~57~~ 60

Play Video

EXAMPLE 1



Student uses a custom number line to compare and round amounts.

INSTRUCTOR: Create a basic number line using Ang-Legs, placing range of amounts on sticky notes at each end and the mid-point amount in center, e.g. to round 242 to the nearest hundreds, place 200 at one end, 250 in the middle, and 300 at the other end. Write the numeral to be rounded on a sticky note and fasten to a craft stick.

STUDENT: Student looks at the amount to round and decides between which numbers it belongs, e.g. between 200 and 250 or between 250 and 300. Student places number before or after the mid point and rounds the number to the nearest hundred, e.g. 200.

Option: fasten a square of dry erasable tape on the craft stick for a multi-use tool.

EXAMPLE 2



Student chooses amount to the right or left to round amount in the middle.

INSTRUCTOR: Place three sets of objects: amount to be rounded in the middle, and choices for rounding on either side (least to greatest, left to right), labeled with numerals. Choose paper clips, sticky notes, bags of pasta, etc. for amounts.

STUDENT: Student chooses amount from left or right that appears closest to amount in middle, then fastens label to record choice.

EXAMPLE 3

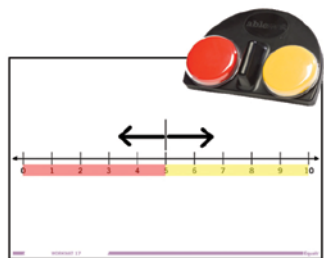
Student chooses the number to the right or left to round number in middle.

INSTRUCTOR: Fasten two number choices and number to be rounded to three blocks, and place them in a row from least to greatest.

STUDENT: Student chooses amount from left or right that appears closest to middle amount.

30 37 40

EXAMPLE 4



Student activates the iTalk2 to direct a peer to round a number.

INSTRUCTOR: Place 0-10 number line on table. Highlight 0-4 in red, and 5-9 in yellow. Draw an arrow above 0-4 pointing to left and an arrow above 5-9 pointing to right. Record "0, 1, 2, 3, 4 - round down" on left side and "5, 6, 7, 8, 9 - round up" on right side of iTalk2 as student watches. Allow time for student to practice.

STUDENT: Student activates the iTalk2 to say whether the number needs to be rounded up or down.

say (1 of 2)



EXAMPLE 1



Student activates Step-by-Step to say a word, phrase, or sentence.

INSTRUCTOR: Record a word, phrase, or sentence for your student as student watches. Allow time for student to practice.

STUDENT: Student activates the Step-by-Step to say the word, phrase, or sentence.

EXAMPLE 2



Student activates the Step-by-Step to say a series of messages.

INSTRUCTOR: Record a sequence of messages, steps, numerals, or questions on the Step-by-Step communicator as student watches. Allow time for student to practice.

STUDENT: Student activates the Step-by-Step communicator multiple times to say a series of messages, numerals, or steps, or to ask a series of questions for a survey.

EXAMPLE 3



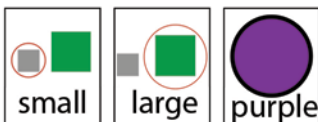
Student chooses a message to say with a SuperTalker, iTalk2 or TalkingBrix.

INSTRUCTOR: Fasten pic-symbol choices and record corresponding messages on the SuperTalker, iTalk2, or on two or more TalkingBrix as student watches. Allow time for student to practice.

STUDENT: Student chooses and activates choice of message by using the pic-symbols.

EXAMPLE 4

A bug is ____.



Student indicates a choice of pic-symbols or objects to talk.

INSTRUCTOR: Place three pic-symbol or object choices in a display. Point to each choice, if needed. Allow time for student to practice.

STUDENT: Student chooses using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 5



Student uses a dry erase board or sentence strip to say something.

INSTRUCTOR: Provide student with a dry erase board or sheet of paper and a dry erase marker or rubber stamp.

STUDENT: Student writes and/or shows a numeral, word, phrase, or sentence or holds up a completed sentence strip to answer a question, make a comment, or add to a discussion.



EXAMPLE 6

Student uses TalkingBrix to say the numbers in order.



INSTRUCTOR: Record numbers to TalkingBrix (one number per TalkingBrix). Place corresponding numeral pic-symbol on top of each TalkingBrix as student watches. Allow time for student to practice.

STUDENT: Student activates the TalkingBrix in order to say the numbers in order.

EXAMPLE 7

Student chooses an object or pic-symbol to comment.



INSTRUCTOR: Place three pic-symbol or object choices in pocket chart.

STUDENT: Student takes, touches, or eye gazes to choose.

Option: record, "That's the one I want" or similar on Step-by-Step and give to student. Point to each answer choice until student activates Step-by-Step

Option: student activates Step-by-Step to indicate choice of what to say as instructor points to each.

EXAMPLE 8

Student uses the QuickTalker to say something.



INSTRUCTOR: Place pic-symbols or create overlay for QuickTalker using the Symbol Overlay Maker App. Record names for pic-symbols on QuickTalker.

STUDENT: Student activates the QuickTalker to say something.

Note: The [Symbol Overlay App](#) can ONLY be downloaded in the [iTunes store](#).

Images for Action and Vocabulary words can be found under the Resources tab on Members Only.

EXAMPLE 9

Student uses concrete representations and the QuickTalker to say something.



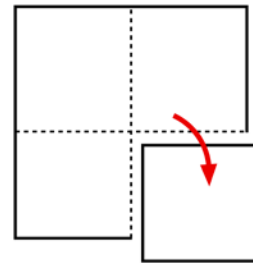
INSTRUCTOR: Place plastic cover in QuickTalker, and fasten hook and loop material to the plastic cover. Fasten objects to the QuickTalker, and record the name of each object.

STUDENT: Student Activates the QuickTalker to say a fact from a problem.

Note: Objects should relate to the word problem.

Example: The problem states that turtles were counted. The student could choose a turtle from the QuickTalker to say a fact from the problem.

separate (1 of 2)



EXAMPLE 1



Student uses a rigid object to move manipulatives.

INSTRUCTOR: Place a ruler in or near student's hand and guide or support arm or hand from underneath to desired location. Place a set of objects on table or lap tray.

STUDENT: Student holds the rigid object and uses a sweeping motion to separate the set.

EXAMPLE 2



Student uses TalkingBrix to designate where to place separated parts.

INSTRUCTOR: Record "Move it here" on the TalkingBrix as student watches. Allow time for student to practice. Place them on the table in different areas.

STUDENT: Student activates the TalkingBrix placed in two locations to indicate where the parts are to be moved.

EXAMPLE 3



Student states a number to tell how many to separate from the original set.

INSTRUCTOR: Record numerals in order on the Step-by-Step as student watches. Allow time for student to practice.

STUDENT: Student counts one part amount to be separated from the set.

EXAMPLE 4

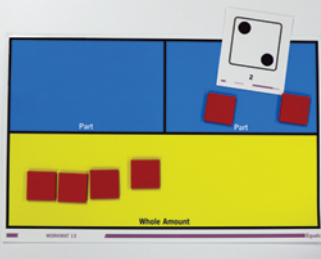


Student separates sets in a zipper bag with a tape dividing line.

INSTRUCTOR: Fasten a colored tape dividing line in center of the outside of a zipper bag and fasten the bag to the table.

STUDENT: Student separates the set by sliding a part of the set across the dividing line.

EXAMPLE 5

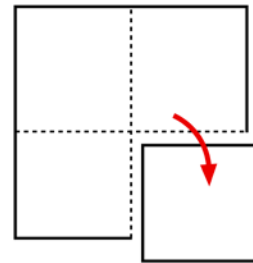


Student chooses an amount to separate from the set.

INSTRUCTOR: Provide student with three choices of 10-frame cards, numerals, or subitizing cards. Point to each choice, if needed.

STUDENT: Student chooses an amount to separate from the set using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

separate (2 of 2)



EXAMPLE 6

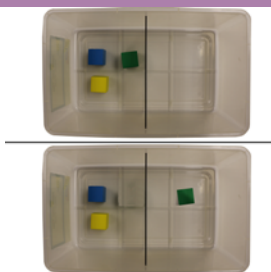


Student uses a piece of paper to separate sets.

INSTRUCTOR: Place set to be separated on table near student. Provide student with a piece of paper or cardboard.

STUDENT: Student uses provided paper to cover part of a set to separate it from the whole set.

EXAMPLE 7

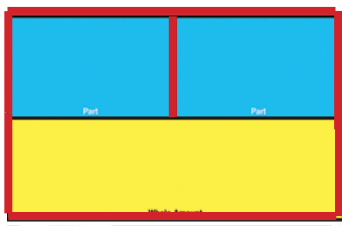


Student uses a container with two compartments to separate.

INSTRUCTOR: Provide student with a container with two compartments and manipulatives. Place manipulatives in a pile on table or in one compartment.

STUDENT: Student moves manipulatives into each compartment, or into other compartment (depending on set-up) to separate the set.

EXAMPLE 8

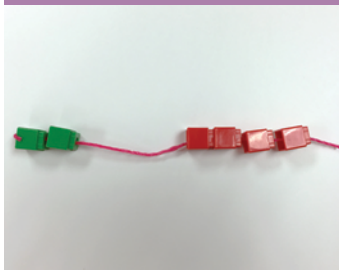


Student uses a modified workmat to separate sets.

INSTRUCTOR: Attach wax-coated yarn sticks or Ang-Legs to Workmat 13, as pictured in red, to provide student with tactile borders.

STUDENT: Student uses the tactile borders to organize counters in the **Whole Amount** portion of the workmat and separate them in the **Parts**.

EXAMPLE 9



Student uses string and beads to join sets.

INSTRUCTOR: String beads into two sets. Anchor the ends of the string and join the sets.

STUDENT: Student moves the beads or connecting cubes to separate the set.

Option: use wax-coated yarn and connecting cubes.

show



EXAMPLE 1



Student activates switch to show slide show on computer.

INSTRUCTOR: Scan pictures or student work into the computer to create a slide show. Connect a Jelly Bean switch and Hitch to the computer USB port to change slides during the slide show. Use accessibility options on computer to minimize multiple hits on switch, if needed.

STUDENT: Student presses switch to change slides to show work.

Option: record narration for each slide.

Option: narration is pre-recorded.

EXAMPLE 2



Student activates Step-by-Step or TalkingBrix to show math work or concept.

INSTRUCTOR: Record multiple or single comments describing math concept or how problem was solved, and fasten matching pic-symbols as student watches. Allow time for student to practice. Fasten objects, pic-symbols, photos or Concrete Connection to slant board (or 3-ring binder) or other display.

STUDENT: Student chooses objects/pic-symbols and helps write the comments to be recorded. Student activates Step-by-Step communicator or TalkingBrix to tell about the displayed object(s).

EXAMPLE 3

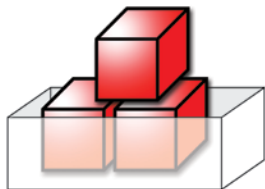


Student activates BIGmack to tell where work or sample is located.

INSTRUCTOR: Record on BIGmack and fasten corresponding pic-symbol, e.g. "Do you want to see what I did in math today? It's in my backpack," and fasten pic-symbol as student watches. Allow time for student to practice.

STUDENT: Student activates BIGmack to direct attention to show an accomplishment in math.

EXAMPLE 4



Student shows object placed in container.

INSTRUCTOR: Place object in container and give to student or fasten to lap tray. Record comments describing student work on Step-by-Step communicator and fasten matching pic-symbol as student watches. Allow time for student to practice.

STUDENT: Student holds to show object(s) or activates Step-by-Step to direct attention to and tell about math work or example.

Option: place in plastic zipper bag.

EXAMPLE 5



Student uses a ruler as a handle to show work.

INSTRUCTOR: Attach student work to a ruler with binder clips. Be sure to leave space at the end of the ruler for a handle.

STUDENT: Student holds the ruler up to show work.

slide



Play Video

EXAMPLE 1



Student pushes to slide shape in area with borders.

INSTRUCTOR: Place shape on tray.

STUDENT: Student pushes shape to slide it within the edges of the tray.

EXAMPLE 2



Student uses glove to slide shape.

INSTRUCTOR: Fasten rough side of hook and loop material on glove and to tray or table at arm's length. Fasten soft side on both sides of shape. Assist student in putting on glove and fastening to top of shape. Assist student in removing glove after student slid the shape.

STUDENT: Student slides shape towards line and stops when the shape sticks to the line.

Play Video

EXAMPLE 3



Student uses a ruler to slide shape.

INSTRUCTOR: Provide student with a ruler.

Optional: Place a wax coated yarn stick on shape to add more height for sliding.

STUDENT: Student pushes the ruler against the shape to slide it.

EXAMPLE 4



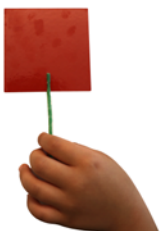
Student asks a peer to slide shape with Step-by-Step communicator.

INSTRUCTOR: Record request for peer to move shape on Step-by-Step as student watches. Allow student time to practice.

STUDENT: Student activates Step-by-Step to ask a peer to slide shape.

Play Video

EXAMPLE 5

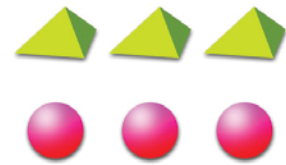


Student uses a wax-coated yarn stick to slide a shape.

INSTRUCTOR: Fasten a wax-coated yarn stick to the shape the student needs to slide.

STUDENT: Student pulls the wax-coated yarn stick to slide the shape.

sort (1 of 2)



EXAMPLE 1



Student sorts and activates iTalk2 to indicate match.

INSTRUCTOR: Place 2-3 sort locations. Fasten pic-symbols on iTalk2 communicator and record "It's a match!" and "No match" to corresponding buttons as student watches. Allow student time to practice. Place three choices in pocket chart, point to one sort location and ask "Which goes here?" Place object in chosen sort location then show sorted objects. Ask "Do they match?"

STUDENT: Student chooses the object to be sorted in designated location. Student activates iTalk2 to say "It's a match!" or "No match" to answer instructor's question (to indicate whether or not the object has been sorted correctly).

EXAMPLE 2



Student activates BIGmack to indicate match and sweeps to sort.

INSTRUCTOR: Record, "It's a match!" on the BIGmack communicator as student watches. Allow student time to practice. Place two containers, each left and right of lap tray or table. Say, "Sort," and show object by one container. Wait for response. When student indicates match for one of the containers, place object by student to sweep.

STUDENT: Student activates BIGmack to indicate match then sweeps object to appropriate container.

Option: place containers below edge of lap tray or table for student to sweep.

Option: student sweeps object off lap tray or table into container.

EXAMPLE 3



Student activates All-Turn-It spinner to choose correct attribute and sorts.

INSTRUCTOR: Divide All-Turn-It spinner overlay into attributes for sorting. Place three object choices in pocket chart. Record "It's a match!" and "No match" on iTalk2 as student watches. Allow student time to practice. Ask "Do they match?"

STUDENT: Student activates spinner to choose attribute. Student chooses object with chosen attribute from pocket chart. Student activates iTalk2 to say "It's a match!" or "No match" to answer instructor's question "Do they match?"

Option: student sorts with a peer rather than instructor.

EXAMPLE 4



Student sorts by sliding between borders.

INSTRUCTOR: Fasten Ang-Leg borders on right, left, and top of columns for sorting and place samples.

STUDENT: Student slides objects from bottom to match sample and correctly sort between the borders.

Option: fasten multiple Ang-Legs on top of each other to make borders higher.

EXAMPLE 5

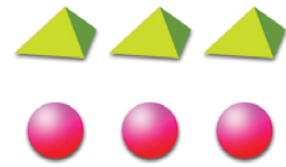


Student uses sorting bowls and TalkingBrix to sort.

INSTRUCTOR: Place blue, red, and/or green sorting bowls on table for student. Record "Blue bowl" to the blue bowl, "Red bowl" to the red TalkingBrix, and "Green bowl" to the green TalkingBrix. Hold objects to be sorted up for the student one at a time.

STUDENT: Student activates the corresponding TalkingBrix to indicate where to sort objects.

sort (2 of 2)



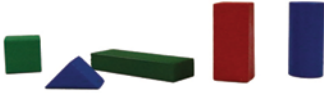
EXAMPLE 6

Student feels faces, edges, and vertices to sort shapes.

INSTRUCTOR: Provide student with building blocks to sort. Fasten yarn stick to each edge, face, and/or vertex.

STUDENT: Student feels the smooth faces and pointed edges and vertices to determine the shape.

Option: student removes and/or counts each removed yarn stick to determine total for each part: edges, vertices, and faces.



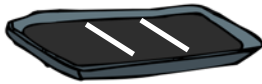
EXAMPLE 7

Student uses tactile cues on a counting tray to sort.

INSTRUCTOR: Place two strips of hook and loop material (rough side) on the counting tray, with space between. Place manipulatives to sort in the middle section.

STUDENT: Student uses the hook and loop material as a tactile cue to help sort manipulatives into two groups.

Option: place some manipulatives on either side as examples.



EXAMPLE 8

Student uses sorting circles to sort large objects.

INSTRUCTOR: Provide student with large everyday objects, e.g. clothing, hats, food, and chair and sorting circles on a large surface, e.g. table or floor.

STUDENT: Student sorts large objects or people into the sorting circles.

Note: provides opportunity for student to sort objects used every day. The large sorting circles can accommodate life-size objects and people.



spin



EXAMPLE 1



Student uses the All-Turn-It® spinner to spin for a turn.

INSTRUCTOR: Fasten photos or name cards on overlay of the All-Turn-It spinner.

STUDENT: Student activates spinner to spin for next player.

EXAMPLE 2



Student uses the All-Turn-It® spinner by activating a switch to spin.

INSTRUCTOR: Connect switch to All-Turn-It spinner and place dice overlay or other choices on the spinner.

STUDENT: Student activates the switch to spin.

EXAMPLE 3



Student spins to make a random choice.

INSTRUCTOR: Fasten appropriate choices, e.g. cards, pic-symbols, shapes, objects, etc. on All-Turn-It spinner for student to make random choice.

STUDENT: Student activates spinner to make a random choice. This is beneficial for students who are just learning how to make choices as they are able to observe and experience the outcome of making a choice. It is also a required step in playing certain games.

EXAMPLE 4



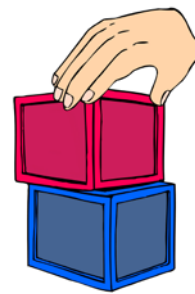
Student uses a Step-by-Step Gameplay to spin.

INSTRUCTOR: Record options to the Step-by-Step Gameplay and set to Level 1: Randomization.

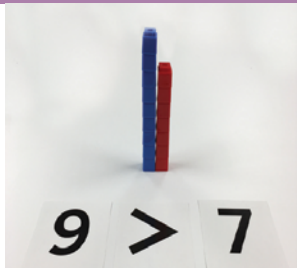
STUDENT: Student activates the Step-by-Step Gameplay to spin.

Option: set to Level 2 to have choices eliminated after student spins that choice.

stack



EXAMPLE 1



Student uses connecting cubes to stack horizontally, then places vertically.

INSTRUCTOR: Provide the student with connecting cubes.

STUDENT: Student connects the connecting cubes together horizontally on the table. The stack can then be placed vertically or turned 90 degrees (similar to a bar graph) for comparison.

EXAMPLE 2



Student uses TalkingBrix to give directions to stack and knock down blocks.

INSTRUCTOR: Record “up”, “down” and “finished” on TalkingBrix. Fasten pic-symbols on each.

STUDENT: Student presses the “up” TalkingBrix to ask a peer to stack another block, “down” to knock them down, and “finished” when the tower is stacked at the required height.

EXAMPLE 3



Student stacks blocks with a guide.

INSTRUCTOR: Stack a few blocks as a base, then tape a ruler to the stack as a guide.

STUDENT: Student places blocks on the stack, using the ruler as a guide.

Option: use an adjacent ruler on a second side to give additional support.

EXAMPLE 4



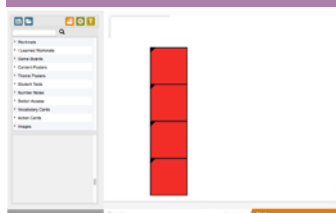
Student uses PVC or a paper towel roll to stack blocks.

INSTRUCTOR: Provide student with a PVC pipe or paper towel roll. Once student has stacked objects, you may need to assist with removing the PVC or paper towel roll.

STUDENT: Student drops blocks into the PVC pipe to stack them.

Note: if using PVC be sure the size is large enough to allow the manipulatives to move through the tube, but not so large the objects don't stack.

EXAMPLE 5



Student stacks tiles in the Equals Technology Lesson Center.

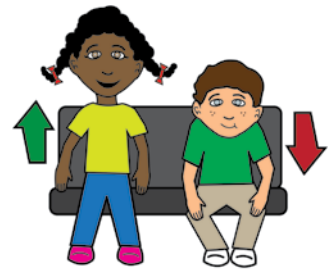
INSTRUCTOR: Open the Equals Technology Lesson Center and find tiles. Place tiles on workspace for student.

STUDENT: Student uses a mouse or touchscreen to stack the tiles in the Equals Technology Lesson Center.

Option: use the accessible workmat for making a graph. Place paper tiles (images folder: shapes) in the widget. Attach the Hitch and two switches.

Option: student uses the widget and switches to stack the images.

stand up, sit down



EXAMPLE 1

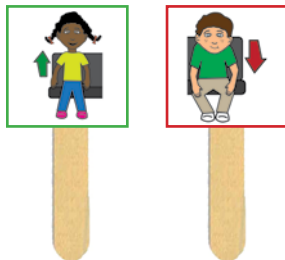


Student performs an action by saying the action.

INSTRUCTOR: Record “stand up” and “sit down” on the iTalk2™ and attach matching pic-symbols.

STUDENT: Student stands up and sits down by selecting and pressing the matching pic-symbol on the iTalk2™.

EXAMPLE 2



Student shows an action as depicted in a photo or pic-symbol.

INSTRUCTOR: Provide picture or pic-symbol for “stand up” and “sit down”. Fasten to craft stick with tape. Wrap soft side hook and loop material around the stick and fasten rough side strip on two gloves or mittens. Place gloves on student’s hand.

STUDENT: Student wears gloves with picture and craft stick sign attached to each. Student holds up the correct picture at the appropriate time.

EXAMPLE 3



Student shows action with a doll or stuffed animal.

INSTRUCTOR: Provide student with a doll or stuffed animal to show the actions “stand up” and “sit down”.

STUDENT: Student moves the doll to stand up or sit down when necessary.

subtract



EXAMPLE 1



Student sweeps objects to subtract.

INSTRUCTOR: Place amount of objects on counting tray and count as student sweeps to count the total, then count the amount to subtract. Record numbers for counting the difference on Step-by-Step and point as student counts.

STUDENT: Student sweeps one at a time to count total and amount subtracted. Student counts with Step-by-Step as instructor points to each object for the difference. Student stops when objects run out.

EXAMPLE 2



Student slides tabs or fastened objects on MathLine to subtract.

INSTRUCTOR: Point to equation and count aloud as student moves tabs. Point to difference.

STUDENT: Student slides tabs left for first amount and slides second amount to the right to subtract. Student identifies difference on MathLine to match to answer choices.

Option: fasten objects to tabs with soft side hook and loop material placed on rough side fastened to tabs.

EXAMPLE 3



Student uses number sequence on Step-by-Step to subtract.

INSTRUCTOR: Record number sequence to one more than largest amount onto Step-by-Step communicator. Point as student counts aloud.

STUDENT: Student counts with Step-by-Step as instructor points to each object for first number, to remove second amount, then for the difference. The student stops when objects run out.

Option: fasten objects to tabs with soft side hook and loop material placed on rough side fastened to tabs.

EXAMPLE 4



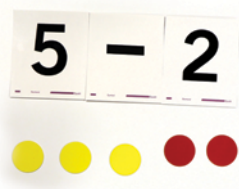
Student locates numerals/symbol from equation on calculator and enters it.

INSTRUCTOR: use wax-coated yarn sticks to frame the numerals/symbols, e.g. $8 - 3$.

STUDENT: Student chooses the correct numeral or symbol in the order presented in the equation and presses each button, then = on the calculator.

Option: color code the numerals/symbols in the equation to match colored windows or yarn sticks.

EXAMPLE 5



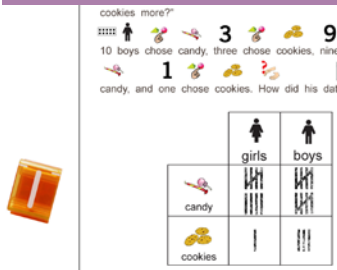
Student uses counting circles to subtract.

INSTRUCTOR: Provide student with counting circles.

STUDENT: Student flips counting circles from yellow to red to show subtraction.



EXAMPLE 1



Student stamps tally mark with rubber stamps.

INSTRUCTOR: Provide "1" rubber stamp for student.

STUDENT: Student stamps a "1" for each single entity counted.

EXAMPLE 2



Student activates BIGmack to direct peer or instructor to tally.

INSTRUCTOR: Record "Tally, tally, tally, tally, slash" on BIGmack and fasten "tally" pic-symbol.

STUDENT: Student activates the BIGmack each time a tally is required.

Note: The slash refers to the mark made across 4 tallies to indicate a set of five.

EXAMPLE 3



Student sweeps straws to tally.

INSTRUCTOR: On the Step-by-Step record "tally, tally, tally, tally, slash" as separate messages. Place one straw at a time on counting tray or table as student activates the Step-by-Step. Instructor tapes groups of five.

STUDENT: Student activates the Step-by-Step to tell the helper to place a straw, "Tally" or to complete and tape the group "Slash".

Option: instructor says, "Tally, tally, tally, tally, slash" instead of student activating the Step-by-Step.

EXAMPLE 4



Student uses Ang-Legs as tally marks.

INSTRUCTOR: Provide student with Ang-Legs to be used as tally marks.

STUDENT: Student places the Ang-Legs on the table or counting tray to tally.

EXAMPLE 5

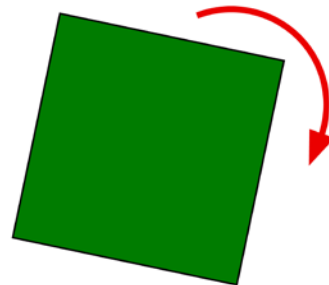


Student uses a drawing program or app to tally.

INSTRUCTOR: Set up a drawing app on a tablet for the student.

STUDENT: Student draws the tally marks in the app.

turn (1 of 2)



Play Video

EXAMPLE 1



Student moves 3-ring binder to turn shape.

INSTRUCTOR: Place shape near closed edge in binder window. Fasten soft side hook and loop material at top left of binder.

STUDENT: Student pulls tab down towards self to turn the shape.

EXAMPLE 2



Student activates BIGmack to direct peer or instructor to turn a shape.

INSTRUCTOR: Record "Turn the shape." to the BIGmack.

STUDENT: Student activates the BIGmack to direct a peer to turn the shape.

Play Video

EXAMPLE 3



Student uses a wax coated yarn stick to turn a shape.

INSTRUCTOR: Fasten a wax coated yarn stick to the shape the student needs to turn.

STUDENT: Student pulls or pushes on the wax coated yarn stick to turn the shape.

Play Video

EXAMPLE 4

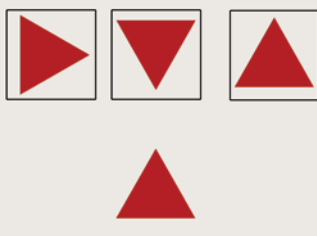


Student uses Ang-Legs to turn a shape.

INSTRUCTOR: Fasten one Ang-Leg to table or lap tray. Connect a second Ang-Leg, and fasten the shape to be turned to the vertex of the Ang-Legs.

STUDENT: Student uses Ang-Leg that is not fastened to the table to turn the shape.

EXAMPLE 5



Student chooses how to turn a shape from a field of choices.

INSTRUCTOR: Place the shape to be turned on the table in front of the student. Show choices for how the shape could be turned. After student chooses, turn the shape to match the desired result.

STUDENT: Student selects the shape that shows the desired result after shape is turned.

turn page



EXAMPLE 1

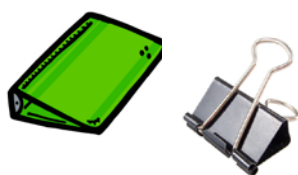


Student activates BIGmack to direct peer or instructor to read.

INSTRUCTOR: Record sentence, “Please turn the page” or “Please help me turn the page” on the BIGmack® communicator.

STUDENT: Student activates the BIGmack® communicator to ask staff or peer helper to turn the page, or ask for help turning the page.

EXAMPLE 2



Student turns pages when book is secured and/or attached to slanted surface.

INSTRUCTOR: Secure the front and back book covers with a clamp or clip on a slant board.

STUDENT: Student turns the pages more easily when it is secured and/or in a slanted position.

EXAMPLE 3



Student turns laminated pages of a book secured to surface.

INSTRUCTOR: Cut apart paperback or paper book, laminate the pages, and add a spiral binding to make pages stiffer, lie flatter, and easier to turn. Fasten hook-side hook and loop material on the back of book to attach to surface to stay in place when the pages are turned. Optional: punch holes and place pages in a 3-ring binder.

STUDENT: Student grasps and turns thicker pages that are secured to a surface.

EXAMPLE 4



Student uses tabs secured to pages to turn them.

INSTRUCTOR: fasten a self-adhesive loop material square behind right edge of each page in varying vertical positions page to page (to minimize bulk). Pages remain slightly apart from each other.
Note: works best with board books or laminated pages

STUDENT: Student uses tab on page to grasp and move the page to the left.

vote



EXAMPLE 1



Student uses the Step-by-Step to vote and continuously count votes.

INSTRUCTOR: Record counting numbers in order for votes on the Step-by-Step communicator.

Option: use two Step-by-Step communicators with a pic-symbol on each. Student activates the Step-by-Step with the pic-symbol representing choice. The Step-by-Step with the highest number is the winner.

STUDENT: Student activates the Step-by-Step communicator one time per vote to count up the number of votes for each choice.

EXAMPLE 2

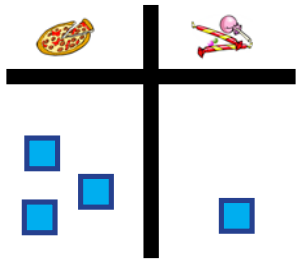


Student uses the iTalk2 communicator to participate in a voting activity.

INSTRUCTOR: Place pictures/symbols representing the two vote options on the iTalk2 communicator and record the two options on the iTalk2 communicator.

STUDENT: Student activates the iTalk2 communicator to vote.

EXAMPLE 3

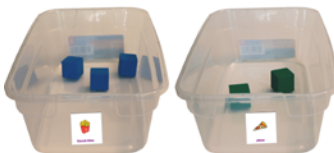


Student uses a voting chart to vote.

INSTRUCTOR: Make a voting chart from poster board. Draw a line down the middle, laminate, and fasten rough side hook and loop material on both sides of chart. Pic-symbol choices are placed at top or bottom of chart. Fasten soft side hook and loop materials on cubes for placing votes.

STUDENT: Student votes by placing a cube on the side of the voting chart with the pic-symbol representing choice.

EXAMPLE 4



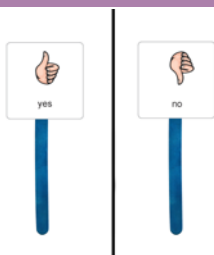
Student places a cube in a container labeled with choices to vote.

INSTRUCTOR: Label two or more containers with pic-symbol representing choice. Place cubes or other manipulatives on table near containers.

STUDENT: Student votes by placing cube in container labeled with the choice they prefer.

Play Video

EXAMPLE 5



Student holds up a visual to vote.

INSTRUCTOR: Attach double sided pic-symbols to craft sticks with tape for student to hold up to show vote from two choices.

STUDENT: Student shows side of sign preferred to vote, visible to the instructor and class.

vote



EXAMPLE 1



Student uses the Step-by-Step to vote and continuously count votes.

INSTRUCTOR: Record counting numbers in order for votes on the Step-by-Step communicator.

Option: use two Step-by-Step communicators with a pic-symbol on each. Student activates the Step-by-Step with the pic-symbol representing choice. The Step-by-Step with the highest number is the winner.

STUDENT: Student activates the Step-by-Step communicator one time per vote to count up the number of votes for each choice.

EXAMPLE 2

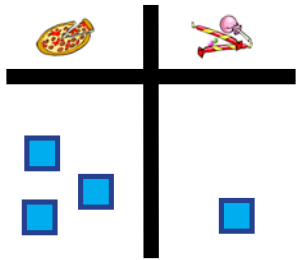


Student uses the iTalk2 communicator to participate in a voting activity.

INSTRUCTOR: Place pictures/symbols representing the two vote options on the iTalk2 communicator and record the two options on the iTalk2 communicator.

STUDENT: Student activates the iTalk2 communicator to vote.

EXAMPLE 3

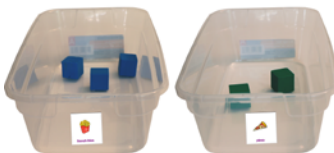


Student uses a voting chart to vote.

INSTRUCTOR: Make a voting chart from poster board. Draw a line down the middle, laminate, and fasten rough side hook and loop material on both sides of chart. Pic-symbol choices are placed at top or bottom of chart. Fasten soft side hook and loop materials on cubes for placing votes.

STUDENT: Student votes by placing a cube on the side of the voting chart with the pic-symbol representing choice.

EXAMPLE 4

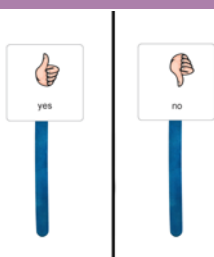


Student places a cube in a container labeled with choices to vote.

INSTRUCTOR: Label two or more containers with pic-symbol representing choice. Place cubes or other manipulatives on table near containers.

STUDENT: Student votes by placing cube in container labeled with the choice they prefer.

EXAMPLE 5



Student holds up a visual to vote.

INSTRUCTOR: Attach double sided pic-symbols to craft sticks with tape for student to hold up to show vote from two choices.

STUDENT: Student shows side of sign preferred to vote, visible to the instructor and class.

weigh



EXAMPLE 1



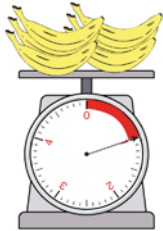
Student uses Dial Scale Model to match and locate weight on the scale.

INSTRUCTOR: Show construction of the face of the scale on the Student Tool: Dial Scale Model by locating the numerals for pounds and lines for ounces. Remove the cover of the scale and locate on the actual scale as well. Count the amount of ounces in a pound (16) and 1/2 pound (8). Show there is only one line for every two ounces on the actual scale.

STUDENT: Student looks at Dial Scale Model, then the scale to locate pounds, number of pounds, ounces, and number of ounces on the model, then the scale.

Note: if scale lines are too difficult to see, rely on whole and half pounds and the corresponding number of ounces as benchmarks, then use weight estimates to locate more exactly on the Dial Scale Model, if possible.

EXAMPLE 2



Student weighs a set of objects to a requested amount.

INSTRUCTOR: Record end weight on BIGmack and mark end weight on scale. Place object on scale. After placing each, point to dial end point, show three Vocabulary card choices (more, less, equal) in pocket chart.

STUDENT: Student looks at dial and chooses using eye gaze, touch, or pointing, or indicates choice as instructor points to each to say if more or less objects are needed to reach requested amount, or if scale amount is equal to requested amount. When student chooses "equal to," he/she activates BIGmack to say amount of total pounds.

EXAMPLE 3

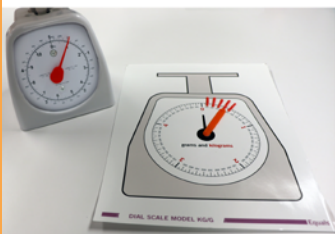


Student reports the exact weight of objects placed on a scale.

INSTRUCTOR: Place object(s) on a scale. Write three weight choices on sticky notes and display them for the student. Point to each choice, if needed.

STUDENT: Student looks at amount on scale and matches to one of the choices using eye gaze, touch, or pointing, or indicates choice as instructor points to each.

EXAMPLE 4

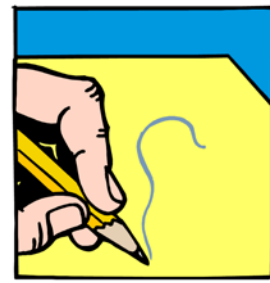


Student uses a modified Dial Scale Model to weigh objects.

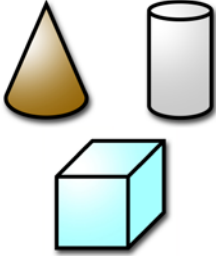
INSTRUCTOR: Place wax coated yarn sticks at important measurements (e.g. 1lb, 2lb, 100g, 200g, etc.) and tell student where the wax coated marker are. Fasten Ang-Leg to the middle of the Dial Scale Model, and position the other end so it is the same as the real scale.

STUDENT: Student places objects to be weighed on the dial scale. Student then checks the Dial Scale Model to find what the dial scale measured.

write (1 of 2)



EXAMPLE 1



Student chooses a pic-symbol or object to write.

INSTRUCTOR: Place three pic-symbol or object choices near student.

Option: interpret student's choice to frame it within context. When modeling writing, instructor fastens student selected pic-symbols or objects to writing surface.

STUDENT: Student eye gazes to, touches or takes a pic-symbol or object and fastens to writing surface to write. Student may make such a choice whether or not presented in sets of three or simply available on the table near the student.

EXAMPLE 2



Student uses rubber stamps or writing utensils to write numbers or symbols.

INSTRUCTOR: Provide three choices of numerals or symbols on cards.

Option: provide other writing utensils and interpret scribbling or writing to frame it within context.

STUDENT: Student chooses and matches choice to stamp to write numbers and/or symbols for equations.

Option: student uses other writing utensils to scribble, draw, or write.

EXAMPLE 3



Student activates the Step-by-Step communicator or iTalk2 to write.

INSTRUCTOR: Fasten pic-symbols and record two choices on iTalk2 for writing or record a message on the Step-by-Step for writing.

Option: prepare letters, words, numbers and/or symbols for tracing.

STUDENT: Student chooses and activates iTalk2 button to dictate writing to instructor or peer. Student uses Step-by-Step to dictate a series of messages to write.

Option: Student chooses what to write and traces it.

EXAMPLE 4



Student uses adapted keyboard or switch with on-screen keyboard to write.

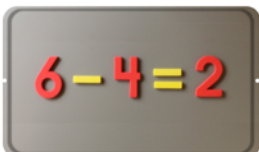
INSTRUCTOR: Place the adapted keyboard in a location easily accessed by student.

Option: record information on Step-by-Step communicator to be typed verbatim or with key words.

STUDENT: Student activates adapted keyboard or uses switch and interface with on-screen keyboard to write.

Option: student may activate Step-by-Step communicator for text or key words to help organize writing.

EXAMPLE 5



Student arranges magnetic numerals and symbols to write an equation.

INSTRUCTOR: Provide student with magnetic numerals and symbols on metal surface to write an equation.

Option: for added difficulty provide extra numerals

STUDENT: Student arranges the numerals and symbols to write an equation.

write (2 of 2)



EXAMPLE 6

Student chooses a sentence to write.

The boy ate 2 pies.

The boy ate 3 pies.

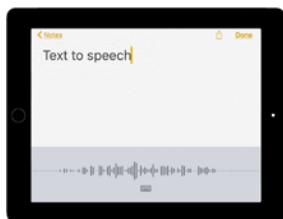
The boy ate 4 pies.

INSTRUCTOR: Provide student with sentence options to choose.

STUDENT: Student chooses a sentence to write.

EXAMPLE 7

Student uses speech to text software to write.



INSTRUCTOR: Using a computer or tablet, turn on speech to text and open a word processing program or app so student can dictate a sentence.

STUDENT: Student dictates the sentence to write. The speech to text software types the sentence.

EXAMPLE 8

Student draws a picture to write.



INSTRUCTOR: Provide student with drawing materials (e.g. paper, pencil, crayons, markers, etc.)

STUDENT: Student draws a picture to write about or answer a question.

EXAMPLE 9

Student uses a cloze sentence to write.

There are ___ frogs.

3

1

0

INSTRUCTOR: Provide student with a cloze sentence.

Option: include choices to fill in the cloze sentence for additional support.

STUDENT: Student completes the cloze sentence to write.