

Math 6-12
Standard Course of Study and
Extended Content Standards with Demonstrators

Subject: Math	Grade Level: 6	
Competency Goal 1: The learner will understand and compute with rational numbers		
Objectives:		
1.01 Develop number sense for negative rational numbers. Connect the model, number word, and number using a variety of representations, including the number line. Compare and order. Make estimates in appropriate situations.		
1.02 Develop meaning for percents. Connect the model, number word, and number using a variety of representations. Make estimates in appropriate situations.		
1.03 Compare and order rational numbers.		
1.04 Develop fluency in addition, subtraction, multiplication, and division of non-negative rational numbers. Analyze computational strategies. Describe the effect of operations on size. Estimate the results of computations. Judge the reasonableness of solutions.		
1.05 Develop fluency in the use of factors, multiples, exponential notation, and prime factorization.		
1.06 Use exponential, scientific, and calculator notation to write very large and very small numbers.		
1.07 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.		
Extended Standard: Develop numbers sense for all rational numbers. Represent numbers in different forms. Develop fluency with adding to, taking away from and equal grouping. Develop flexibility in solving mathematical problems by selecting strategies and using appropriate technology		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Demonstrate understanding of number positioning on number line • Demonstrate understanding of positive/negative numbers • Demonstrate understanding of decimals • Demonstrate understanding of multiplication • Demonstrate understanding of division • Demonstrate problem solving skills from a variety of strategies • Demonstrate appropriate technology skills to solve mathematical problems 	<ul style="list-style-type: none"> • Demonstrate knowledge of the number line • Demonstrate knowledge of equal groupings • Demonstrate knowledge of positive and/or negative numbers • Demonstrate knowledge of whole vs. part • Demonstrate multiple strategies to solve mathematical problems 	<ul style="list-style-type: none"> • Demonstrate awareness of differences in amount of objects • Demonstrate awareness of nothing (zero) or something (numbers more than zero) • Demonstrate awareness of whole vs. part

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 6, Comp 1 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> Using a thermometer – demonstrate the number going up and down (bigger and smaller) Using a rule to measure water level – demonstrate positive numbers going up – negative numbers below the line Multiplication - Give 2 cookies to each of three students, gives 1 pencil to each of 5 students, gives 3 counting cubes to each of two students and creates number sentence to describe operation Division - Divide 6 candies between 2 girls, divide 8 pencils between 4 students, etc. Use a picture/math sentence strip (5 chips + 11 chips= Count & fill in blanks- Compute equality) Given a number line with numbers missing from number line, fill in missing numbers (up to 20). Use more than one strategy, such as counting concrete objects, pictures, fingers, number line, etc to solve the same simple mathematical problem. Use calendar to count number of days to special event Use dollar-up method ('and one more') to make purchases Determine how much money is needed to make simple purchases Determine how much money (estimate) is needed to purchase an item or items (adding small prices) Using coins and bills make different combinations of money having the same value (5 one dollar bills equal five dollar bill, etc.) Subtract a 1 or 2 digit number from a 2 digit number with renaming or no renaming Skip count by 2, 5, 10 or 25 Multiply 1 digit factor by 1 digit factor Solve multiplication word problems with manipulatives Match fraction pieces to picture representation (object to picture of pieces of pie, measuring utensils Use fraction concept to divide snack items equally between peers Count change less than \$1.00 Identify combinations of coins that equal one dollar Count sets of coins to make purchase Write value of coins/dollar amount with decimal Identify dollar and cents amounts in relation to position of decimal 	<ul style="list-style-type: none"> Using a number line, move to the appropriate digit by using counted objects, picture/symbol of numerals, and/or verbal directions, use paper chain to count up/down to an event (up to 3) Match appropriate number of objects (pencils, markers, cds, pens, etc.) to a picture/pic symbol of the designated number of objects (one-to-one correspondence). Move forward(+) /backward(-) on a number line when playing a game ; Move forward and backward a specified amount on an age appropriate/teacher-made game board when playing a game (up to 3 spaces)(Trouble/Aggravation/Monopoly - modified) Indicate complete/incomplete picture of an object: picture of familiar people, objects, animals, etc. cut in half vertically/horizontally and match; filling partial containers with same contents to make it whole (ie. following a recipe) Use one strategy, such as counting concrete objects, pictures, fingers, number line, etc to solve simple mathematical problem. Count to ___ while performing an activity (e.g., wash hands, wipe table, track or swim laps, etc.) Rote count to 5 Count out classroom materials/objects to specified number (up to 3) Match number of functional objects to number on card (1 and 2) Select task by matching number on card to number on task (up to 6) Match numbers on card in sequence to phone dial pad (up to 3 numbers in sequence) Locate rooms/offices/grocery aisles by number using a number card as a reference Respond to use of ordinals (1st, 2nd, 3rd) during turn-taking, schedule activities, lining up, etc. Finding prices for purchase on items/shelf Use money diagram/jig (picture dictionary of money values) to count or determine number of coins to make a purchase (match value of item to jig) 	<ul style="list-style-type: none"> Indicate recognition (i.e. one full eye gaze, point/turn, head movement) of difference in amounts or more: Bowls of popcorn, m & m's; cups of liquid; containers with various contents, box with 1 crayon/colored pencil and box full of crayons/colored pencils Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of nothing/something; have 2 clear bags, containers, bowls, cups, etc. with preferred food or objects (1 full, 1 empty) Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of whole or part; Have a whole circle, food or object and a half or quarters; whole lunch tray/partial lunch tray with 1 item; 2 baskets-1 with cd and player, 1 with only cd or player Demonstrate attention toward a set of objects while teacher counts objects Demonstrate attention to objects while teacher puts objects into container by corresponding number Demonstrate attention toward a set of number cards while teacher counts Indicate one object and then another, as teacher counts 'one,' 'two' Indicate one item when given the verbal direction to 'give me one' Demonstrate 1:1 correspondence by exchanging money as object to receive another object Recognize and select money as object for exchange

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Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student's mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Math	Grade Level: 6	
Competency Goal 2: The learner will select and use appropriate tools to measure two- and three-dimensional figures		
Objectives:		
2.01 Estimate and measure length, perimeter, area, angles, weight, and mass of two- and three-dimensional figures, using appropriate tools.		
2.02 Solve problems involving perimeter/circumference and area of plane figures.		
Extended Standard: Estimate and measure length, perimeter, area, angles, weight and mass of two- and three-dimensional figures. Solve area, circumference and perimeter problems.		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Measure item with standard or non standard tools • Estimate and measure two- and three-dimensional figures by a variety of attributes (e.g., length, weight, and mass) • Demonstrate understanding of area and perimeter 	<ul style="list-style-type: none"> • Classify two- and three- dimensional figures by 1 or more attributes (e.g., length, weight, and mass) • Demonstrate knowledge of area and perimeter 	<ul style="list-style-type: none"> • Demonstrate awareness of attributes (e.g., length, weight, and mass) of two- and three-dimensional figures • Demonstrate awareness of concepts related to area and perimeter (e.g., in, out, around)

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 6, Comp 2 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Use # of paper clips to measure length of paper, use blocks to measure length of box, use marbles or blocks to determine weight/volume of container, etc. • Use balance or scale to determine weight and to identify greater, lesser, same weight • Outline and compare perimeter or circumference of various objects (use string/measuring tape/ etc. to outline perimeter and compare lengths) • Use manipulatives to identify and compare area, mass, and weight • Choose from two objects the one that is described in simple measurement concepts (few/many, narrow/wide, thick/thin, light/heavy, full/empty) • Match and use appropriate measurement tool with object being measured (scale to weight, cup to liquid, measuring tape to furniture or space) • Measure the distance moved during mobility training/physical therapy activities by choosing card with correct distance written on it (i.e., 'length of hall, length of classroom, 2 steps, 7 steps, etc.) 	<ul style="list-style-type: none"> • Choose the correct shoelace for a tennis shoe, given the choice of one that is much too short and one that is appropriate • Align objects by length on a display (short to long) • Weigh items on a scale to identify heavier/lighter • Designate towels by size (beach towel, bath towel, wash cloth, dish towels, dish cloths, etc); sort family clothing by size. • Outline perimeter of a shape/design with a manipulative (string, clay, etc.) • Fill an empty box with packing peanuts and identify when full • Mix batter and pour into baking pans for a cake to indicate full, then frost the outside when baked (in each case, student must indicate when full, covered, empty or perimeter is completely outlined) • Choose from two objects the one that addresses simple measurement concepts: big/little, full/empty, short/tall, short/long, less/more • Use non-standard units of measurement (i.e., number of steps from desk to classroom door, number of pushes of wheelchair to go from place to place in class, etc.) • Choose the correct tool of measurement from a choice of two (ruler, measuring cup, measuring tape, etc.) • Choose the correct measurement tool to complete a vocational task (i.e., choosing the measuring cup for flour, choosing the ruler to measure items for packaging, etc.) • Follow an object recipe when ingredients are laid out with measuring utensils in sequence to make a simple snack • Match two-dimensional figures of same size • Match two-dimensional figures to similar three dimensional figures • Match similar two-dimensional figures that differ on 1 attribute • Match three-dimensional figures that differ on 1 attribute (all cylindrical cans go on shelf, rectangular boxes go on another shelf) 	<ul style="list-style-type: none"> • Choose between short stick of gum and full stick; two bookbags,-1 light, 1 heavy; wrist weights of different weights during physical activity; different weight containers, such as drink bottles, crates, snack food boxes, etc.; snack size food packages/drinks vs. full size containers • Indicate recognition of concepts related to area and perimeter through games: bean bag toss; move around bases during an appropriate game; follow a course, path or perimeter; move in/out of a batter's box, a square, a circle, etc. in meaningful routine activities, • Focus attention to designated track for ____ ft./yards/meters when preparing for mobility training in therapy sessions • Stops at finish line to indicate finished with length of track • Focus attention on appropriate tool of measurement (i.e., teaspoon, cup – mass, volume) as teacher demonstrates steps in a recipe • Match identical two-dimensional figures

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Subject: Math	Grade Level: 6	
Competency Goal 3: The learner will understand and use properties and relationships of geometric figures in the coordinate plane		
Objectives:		
3.01 Identify and describe the intersection of figures in a plane.		
3.02 Identify the radius, diameter, chord, center, and circumference of a circle; determine the relationships among them.		
3.03 Transform figures in the coordinate plane and describe the transformation.		
3.04 Solve problems involving geometric figures in the coordinate plane.		
Extended Standard: Demonstrate and describe examples of the intersection of figures. Solve problems involving circles (center and circumference) and related segments (radius, diameter, chord)		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Demonstrate ability to communicate the intersection (touch) of two figures • Demonstrate understanding of two intersecting figures • Communicate the center, circumference, radius, diameter and chord of a circle using correct mathematical terminology 	<ul style="list-style-type: none"> • Demonstrate knowledge of the number of points of intersection (touch) for two figures • Demonstrate knowledge of the center, and circumference of a circle 	<ul style="list-style-type: none"> • Demonstrate awareness of intersection (touch) points for two figures • Locate the interior of a circle

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 6, Comp 3 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Given a model of two intersecting figures (different colors) – Identify the figures with his/her finger and tell the teacher when he/she runs into the second figure • Indicate points of intersection between two figures (2- and 3-dimensional) • Given a model of a circle with parts drawn in it, identify the parts: center, circumference, radius, diameter, and chord of a circle • Demonstrate ability to arrange objects using the positional concepts of ‘next to,’ ‘behind,’ ‘in front of,’ ‘under,’ ‘on top of,’ etc. with recognition of touch points between objects 	<ul style="list-style-type: none"> • Link paper chain for decoration; put biscuits on the pan to bake (noting touch points); crossing or looping a shoe lace; spread peanut butter on a cracker and put two sides together • Using a template on parchment paper, drop a ball of dough in the center of the designated circle before baking • Outline a shape or food item with secondary food item around the circumference (ie: M & M’s around the circumference of a sugar cookie before baking) • Given a circular object or stencil, trace around the outside of the circle • Put line of glue or string around outside of circular shape • Put brad or hole through center of paper circle to make a paper clock; poke stick through middle of aluminum pan to spin pan on stick • Put a trash bag in the center of a trash can and pull edge around circumference of can 	<ul style="list-style-type: none"> • Indicate recognition (eye gaze, pointing) of intersection (2 circles touch, 2 circles not touching): intersecting circles using modeling clay; aligning Velcro, connecting one object with another by alignment – insert, put on, put in • Indicate recognition (eye gaze , pointing) of interior of circle- Use hula-hoop – place child inside/outside- Create routine through play: noise or move when inside/quiet when outside • Place objects inside small ring and some outside (far away) – point or eye gaze to indicate ‘in’ (cookies on a plate vs. cookies in a bag) • Indicate interior of a circle: Throwing trash into a trashcan; bean bag or ball toss into a hoop or circular shape • Insert a pencil in a pencil sharpener, a pen in a cap

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Subject: Math	Grade Level: 6	
Competency Goal 4: The learner will understand and determine probabilities		
Objectives:		
4.01 Develop fluency with counting strategies to determine the sample space for an event. Include lists, tree diagrams, frequency distribution tables, permutations, combinations, and the Fundamental Counting Principle.		
4.02 Use a sample space to determine the probability of an event.		
4.03 Conduct experiments involving simple and compound events.		
4.04 Determine and compare experimental and theoretical probabilities for simple and compound events.		
4.05 Determine and compare experimental and theoretical probabilities for independent and dependent events.		
4.06 Design and conduct experiments or surveys to solve problems; report and analyze results.		
Extended Standard: Describe events as certain, impossible, more likely or less likely to occur. Demonstrate permutations and combinations of items.		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Demonstrate understanding of probability (certain, impossible, more likely or less likely to occur) • Create permutations of 3 or more items 	<ul style="list-style-type: none"> • Demonstrate knowledge of probability (certain, impossible, more or less likely to occur) • Create combination of 2 items 	<ul style="list-style-type: none"> • Demonstrate awareness of probability (certain, impossible, more likely or less likely to occur) • Recognize different order of objects in an arrangement/display

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Grade 6, Comp 4 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Use chart to determine likelihood of an event – if chart shows that it rained 20 of past 25 days, what will it do tomorrow? • When lightning storm is outside, recognize need for flashlight since lights might go out • When presented with a set of materials (bag of mixed chips, pretzels, cheese crackers) and student sees that there are lots more chips than other items, student states which one the teacher is more likely to pull out of bag (also colored marbles, skittles, colored pens, etc.) • Count coin flips and makes prediction on number of heads or tails in 10 flips, 20 flips, etc. 	<ul style="list-style-type: none"> • Show a picture of a cloud and sunshine and predict which will cause rain • Present student with a bag of popcorn and an appropriate and inappropriate sized bowl to hold the entire contents –indicate bowl that will hold contents • When presented with large legal envelope and small ‘thank you’ envelope and large piece of paper, identify which is possible and impossible to fit? • Given a baby shoe and adult shoe, which one will student’s foot go in? • Use 1:1 association of a jig in various combinations (jig for either multiple items or multiples of an item) • Demonstrate knowledge that sets of objects in different order are still the same (comb and brush = brush and comb) 	<ul style="list-style-type: none"> • Indicate recognition/anticipation (eye movements, pointing, head movement) of consistent routine events: relate objects to go home, go to lunch, be changed, play when outside • Shown a real bus and a toy airplane, indicate which will take student home • With familiar and routine arrangement of objects, demonstrate recognition that objects are out of order (‘put it back where it goes’ – coat falls off hook, put it back) • Recognize arrangement -place one item on single silhouette jig – plate on circle on placemat • Demonstrate recognition of how an action will ‘certainly’ affect change: flip switch, lights come on; Put key in lock, get in the door; Open refrigerator, get food; Click mouse, computer screen changes; turn faucet, water comes out; hit button on alarm clock, noise stops

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Subject: Math		Grade Level: 6	
Competency Goal 5: The learner will demonstrate an understanding of simple algebraic expressions			
Objectives:			
5.01 Simplify algebraic expressions and verify the results using the basic properties of rational numbers: Identity. Commutative. Associative. Distributive. Order of operations.			
5.02 Use and evaluate algebraic expressions.			
5.03 Solve simple (one- and two-step) equations or inequalities.			
5.04 Use graphs, tables, and symbols to model and solve problems involving rates of change and ratios			
Extended Standard: Demonstrate and extend patterns. Demonstrate commutativity of addition and multiplication (is order significant or insignificant – commutative?). Demonstrate identity element (for addition – 0, for multiplication – 1). Solve simple one-step equations. Recognize and describe constant and varying rates of change (faster or slower)			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate the ability to create and extend patterns • Demonstrate understanding of equal and not equal elements of an equation • Demonstrate understanding of identity element • Demonstrate ability to solve simple one step equations • Demonstrate the ability to recognize and describe constant and varying rate of change (faster and slower) • Demonstrate understanding of commutativity of addition and multiplication 		<ul style="list-style-type: none"> • Demonstrate ability to recognize, repeat, copy, and extend a pattern • Demonstrate knowledge of equal and not equal sides of an equation • Demonstrate knowledge of identity element • Demonstrate ability to recognize constant and varying rates of change (faster and slower) 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> • Demonstrate ability to repeat a pattern • Demonstrate awareness of identity element (demonstrate awareness of more, less, same with quantity) • Demonstrate awareness of constant and varying rates of change (faster & slower) 	

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Grade 6, Comp 5 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Given a simple repeat pattern card with alternating 2 or 3 objects - duplicate • Demonstrate capacity to repeat a 2-action or 3-action pattern • Complete equations (number sentences) with manipulatives - Use manipulatives to duplicate a given math equation using +0 (addition) X 1 (multiplication) • Use changing patterns to complete 3-4 step collating tasks (ex. – yellow, white blue vs. white, blue yellow) • Follow a 3-4 step (5-7 step) pattern (varies according to visual cues) to complete a vocational task • Complete multi-step patterns for folding clothes (towels, socks, shirts, pants) • Sequence 3-5 objects from smallest to biggest • Sequence objects from short to long • Sequence objects by weight or volume • Duplicate arrangement of objects according to pre-set patterns (stack 10 cans per shelf, vs. 2 lines of 5 cans per shelf) • Open combination locks using different combination patterns 	<ul style="list-style-type: none"> • Replicate a 2-item pattern with objects, symbols, rhythms; movements in sequence • Create matched sets with objects; using a scale, balance sets of objects • Create matching sets with manipulatives • Indicate same/not same with sets by adding 1 or zero to set • Imitate changing rhythmic patterns using musical instruments, hands, feet or switch devices to demonstrate knowledge of faster and slower • Indicate which hand on a clock moves faster/slower; demonstrate knowledge of faster and slower through actions with familiar functional objects • Follow pattern to set table (lunch placemat vs. snack placemat) • Use pattern to complete 2-step collating task • Sequence objects on string/wire given changing pattern models (create jewelry) • Follow a 1-2 step changing pattern to complete an assembly or packaging vocational task • Follow exercise routine with visual patterns as cue (exercise sequence 1 vs. 2) • Follow pattern to transition from one place to another (march to counting pattern) 	<ul style="list-style-type: none"> • Indicate recognition of a repetitive line in a story or song by pushing a switch (S. Silverstein poems; country music; Macarena) • Indicate recognition of more, less, same with quantity – (add more to fill, find the same with amount – 1 vs. many) • Indicate recognition of rates of change: Use wind-up toys (one fast/one slow); respond to varying rhythms in music; • Indicate readiness to make a transition by making a physical response after teacher touches him/her on cheek three times (while counting aloud) • Grasp, relaxe, move or activate an electronic device ,etc. on the teacher’s count of ____ • Recognize pattern of sounds by turning toward door to go outside (3 beeps means outside time)

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Subject: Math		Grade Level: 7	
Competency Goal 1: The learner will understand and compute with rational numbers			
Objectives:			
1.01 Develop and use ratios, proportions, and percents to solve problems.			
1.02 Develop fluency in addition, subtraction, multiplication, and division of rational numbers. Analyze computational strategies. Describe the effect of operations on size. Estimate the results of computations. Judge the reasonableness of solutions.			
1.03 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.			
Extended Standard: Represent numbers in different forms. Develop fluency with adding to, taking away from and equal grouping. Develop flexibility in solving mathematical problems by selecting strategies and using appropriate technology. Identify relationships in which a change in one quantity relates to change in second quantity			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate understanding of number positioning on number line • Demonstrate understanding of decimals • Demonstrate understanding of percents • Demonstrate understanding of multiplication • Demonstrate understanding of division • Compute sums and differences • Demonstrate technology skills to solve mathematical problems • Demonstrate understanding of adjusting quantity when another quantity is changed (e.g., doubling recipe) 		<ul style="list-style-type: none"> • Demonstrate knowledge of counting on number line • Demonstrate knowledge of equal groupings • Demonstrate knowledge of whole vs. part • Demonstrate multiple strategies to solve mathematical problems • Compute sums without regrouping using models or concrete objects 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> • Demonstrate awareness of differences in amount of objects • Demonstrate awareness of addition by combining objects • 	

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Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 7, Comp 1 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Count out classroom materials or objects to specified number • Count number of days to special event • Follow directions which use ordinal numbers (go to second door, point to 3rd apple) • Describe items that are found in various positions within a sequence of first through fifth • Use dollar-up method to make purchases • Determine how much money is needed to make purchases • Determine how much money is needed to purchase an item or items (adding prices) • Add 2-digit numbers with naming or no renaming • Subtract a 1 or 2 digit number from a 2 digit number with renaming or no renaming • Skip count by 2, 5, 10 or 25 • Multiply 1 digit factor by 1 digit factor • Solve multiplication word problems with manipulatives • Match fraction pieces to picture representation (object to picture of pieces of pie, measuring utensils) • Use fraction concept to divide snack items equally between peers • Using coins and bills make different combinations of money having the same value (5 one dollar bills equal five dollar bill, etc.) • Identify combinations of coins that equal one dollar • Count sets of coins to make purchase • Write value of coins/dollar amount with decimal • Identify dollar and cents amounts in relation to position of decimal 	<ul style="list-style-type: none"> • Using a number line, move to the appropriate digit by using counted objects, picture/symbol of numerals, and/or verbal directions. • Create 2 equal groups when given manipulatives and a picture/pic symbol of the designated number. • Indicate complete/incomplete by cutting a picture of a simple object into a simple puzzle and reassemble; draw picture, then create own puzzle; filling empty containers with designated contents to make it whole (ie. following a recipe) • Use more than one strategy, such as counting concrete objects, pictures, fingers, number line, etc to solve the same simple mathematical problem. • Use manipulatives to create and solve written math problems without regrouping. • Count to ___ while performing an activity (e.g., wash hands, wipe table, track or swim laps, etc.) • Rote count to 3, to 5, etc. • Count out classroom materials/objects to specified number • Match number of functional objects to number on card • Select task by matching number on card to number on task or on phone • Locate rooms/offices/grocery aisles by number using a number card as a reference • Respond to use of ordinals (1st, 2nd, 3rd) during turn-taking, schedule activities, lining up, etc. • Use money diagram/jig (picture dictionary of money values) to count or determine number of coins to make a purchase (match value of item to jig) 	<ul style="list-style-type: none"> • Indicate recognition (i.e. one full eye gaze, point/turn, head movement) of difference in amounts: Baseball cards, game boy games, pencil erasers, food and drink items; 1 marker and box of markers, favored items • Indicate recognition (eye gaze, point/turn, head movement) of combining given objects to fill a container; combine all objects provided/given • Demonstrate attention toward a set of objects while teacher counts objects • Demonstrate attention to objects while teacher puts objects into container by corresponding number • Demonstrate attention toward a set of number cards while teacher counts • Indicate one object and then another, as teacher counts ‘one,’ ‘two’ • Demonstrate 1:1 correspondence by exchanging money as object to receive another object • Recognize and selects money as object for exchange

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Math	Grade Level: 7	
Competency Goal 2: The learner will select and use measurement involving two- and three-dimensional figures		
Objectives:		
2.01 Draw objects to scale and use scale drawings to solve problems.		
2.02 Solve problems involving volume and surface area of cylinders, prisms, and composite shapes.		
Extended Standard: Solve problems involving volume and surface area. Recognize objects from scale drawings.		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Demonstrate understanding of volume (as amount within) or surface area (amount around) • Analyze scale drawing to locate items 	<ul style="list-style-type: none"> • Demonstrate knowledge of volume (as amount within) and surface area (as amount around) • Demonstrate ability to relate objects to drawings or photographs 	<ul style="list-style-type: none"> • Demonstrate awareness of concepts related to surface area and volume (in & around)

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 7, Comp 2 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Create a scale drawing to lead the student to a hidden treasure • Determine number of ½ cup measures in a cup container, a quart container, etc. • Use uniform cubes (objects) in a model to cover surface (i.e., number of cans that fit on a shelf) • Choose from two objects the one that is described in simple measurement concepts (big/little, narrow/wide, thick/thin, full/empty) • Match and use appropriate measurement tool with object being measured (cup to liquid, measuring tape to furniture or space) • Measure the distance around during mobility training/physical therapy activities by choosing card with correct distance written on it (i.e., 2 steps, 7 steps, number of wheel chair pushes around table, etc.) 	<ul style="list-style-type: none"> • Fill a container with appropriate amount of liquid to create full; choose between a cracker with a small amount of spread and one that has all surface area covered with the spread. • Match an object to a picture of the object; match pictures to of like objects appropriate categories (food, transportation, clothing); match appropriate objects to geometric shape (ice cream cone to triangle, orange to circle, cracker to square) • Choose the correct measurement tool to complete a recipe or vocational task (e.g., measuring cup to measure flour, teaspoon to measure salt, gallon bottle to water plants, etc.) • Follow an object recipe when ingredients are laid out with measuring utensils in sequence to make a simple snack • Match three-dimensional figures that differ on 1 attribute- either volume or surface area (all cylindrical cans go on shelf, rectangular boxes go on another shelf) • Use sponge to get whole surface of a table wet • Choose correct size lid to cover container • Match three-dimensional objects to photos or scale drawings on shelf, in packaging tasks, in functional environments 	<ul style="list-style-type: none"> • Indicate recognition of surface area and volume : choose between cracker with spread and cracker with no spread (recognize ‘covered’); choose between full bottle and empty bottle when offered • Use a measuring tool to obtain ingredient as part of a recipe or vocational activity (puts cup in flour to scoop) • Focus attention on appropriate tool of measurement (i.e., teaspoon, cup – mass, volume) as teacher demonstrates steps in a recipe • When provided with appropriate lid, secure lid to container (puts lid on box, etc.) • Fill container to rim, stop filling when container is full

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Math		Grade Level: 7	
Competency Goal 3: The learner will understand and use properties and relationships in geometry			
Objectives:			
3.01 Using three-dimensional figures: Identify, describe, and draw from various views (top, side, front, corner). Build from various views. Describe cross-sectional views.			
3.02 Identify, define, and describe similar and congruent polygons with respect to angle measures, length of sides, and proportionality of sides.			
3.03 Use scaling and proportional reasoning to solve problems related to similar and congruent polygons.			
Extended Standard: Identify three-dimensional figures from various views (top, side, front, corner). Build three-dimensional figures from various views. Prove by demonstration that figures are congruent or symmetric.			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> Differentiate 3-dimensional objects by attribute (top, side, front, corner) Construct a 3-dimensional model/figure given a front or side view Identify congruent and non-congruent figures 	<ul style="list-style-type: none"> Construct a 3-dimensional model/figure Demonstrate congruency with shapes Construct figures with lines of symmetry Identify 3-dimensional objects given top and front views 	Pre-symbolic Access Points	
		<ul style="list-style-type: none"> Demonstrate awareness of like objects Construct a 3-dimensional figure 	

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 7, Comp 3 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Identify or indicate front, side, bottom, top of figures or objects • Describe the attributes of a 3 dimensional object - top side, front cover • Indicate corners of object • Construct a 3 dimensional model with front or side view • Given a group of 3 dimensional objects – find congruent sets. Indicate congruence by placing on top of (superimposing). • Indicate that two objects are congruent when not superimposed • Demonstrate ability to arrange objects using the positional concepts of ‘next to,’ ‘behind,’ ‘in front of,’ ‘under,’ ‘on top of,’ etc. with recognition of touch points between objects in creating 3-dimensional array 	<ul style="list-style-type: none"> • Use blocks and/or cubes to duplicate a picture model of a 3 dimensional figure; stack books according to a given diagram; use commercial products to produce a model of a given figure (Unifix/ legos/ Kinex/ tinker toys/Lincoln logs) • Match congruent shapes (crackers of same shape/size, bread slices to bread slices, hamburger bun top to bun bottom • Write/draw object on paper with paint and fold paper in half; match pictures of 2 parallel halves of a given object to complete the picture. • Using a picture giving top/front view, match to front view of object • Put books on shelf with spine side out 	<ul style="list-style-type: none"> • Indicate recognition (eye gaze, pointing) of sorting by 1 attribute • Indicate recognition (eye gaze, pointing, touching) of 2 or more stacked objects that construct a figure • Sorts bottles vs. paper (recycling) to object-marked bins • Recognizes and adjusts position of cap to put cap on pen, mail in slot, object in box, CD in envelope, etc. • Stack boxes to fill a shelf

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Subject: Math		Grade Level: 7	
Competency Goal 4: The learner will understand and use graphs and data analysis.			
Objectives:			
4.01 Collect, organize, analyze, and display data (including box plots and histograms) to solve problems.			
4.02 Calculate, use, and interpret the mean, median, mode, range, frequency distribution, and inter-quartile range for a set of data.			
4.03 Describe how the mean, median, mode, range, frequency distribution, and inter-quartile range of a set of data affect its graph.			
4.04 Identify outliers and determine their effect on the mean, median, mode, and range of a set of data.			
4.05 Solve problems involving two or more sets of data using appropriate statistical measures.			
Extended Standard: Collect, organize and display data to solve problems. Identify mode of a set of data (most often occurring)			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> Organize data for display Create data display 		<ul style="list-style-type: none"> Organize data for pictorial display Create data display 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> Demonstrate awareness of organization for object display Demonstrate awareness of mode of a data set (mode requires knowledge of most frequently occurring and most frequently occurring requires knowledge of more as increase). 	

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 7, Comp 4 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Sign self into class attendance chart • Place picture symbol of work task on graph • Place number cards/ letter cards of work tasks on graph • Self-graphing after mobility training to display distance • Use a line graph to represent information • Interpret attendance chart by quantifying /comparing data (how many girls present today vs. how many boys) • Interpret weather chart information by quantifying and/or comparing weather data (how many cloudy vs. sunny days this month?) • Locate TV show listed in time/channel chart • Put marker on chart after chore completion • Identify completion of work activity by putting work symbol on chart • Identify completion when work chart is full 	<ul style="list-style-type: none"> • Use pictures to sequence an event or activity; sort and graph pictures/objects by 1 attribute; • Color bar graph when given data; glue pictures to create a pictograph • Stack washers, counters, etc. on spindle for each work task completed to create an object graph • Place bead or small object on line graph • Pull Velcro marker off line graph to indicate finished activity • Place photograph of self on attendance graph indicating presence • Place photo on correct portion of graph to indicate student attending vs. not attending school • Count/ manipulate stickers on behavior chart to determine rewards • Indicate completion when work chart is full 	<ul style="list-style-type: none"> • Indicate recognition (eye movements, pointing, head movement) of organization for object display: sort/stack given objects • Indicate recognition (eye movements, pointing, head movement) of more as precursor to ‘most frequently occurring’: indicate to add more in order to fill a container (add cereal to a partially-filled bowl; liquid to a partially-filled measuring cup); indicate recognition of repetition of event or object (demonstrates behavior indicating expectation of repetition) • Fill bucket with tennis balls to ‘stop line’ to develop ability to understand completion on an object chart • Display data on an object chart by grasping an object (ball, jingle object, etc.) to place in can – to add to object graph • Reach toward or direct attention to sticker or stamp for chart upon task completion • Indicate photo of self to communicate presence so teacher will put picture on attendance graph

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Subject: Math	Grade Level: 7	
Competency Goal 5: The learner will demonstrate an understanding of linear relations and fundamental algebraic concepts.		
Objectives:		
5.01 Identify, analyze, and create linear relations, sequences, and functions using symbols, graphs, tables, diagrams, and written descriptions.		
5.02 Translate among different representations of algebraic expressions, equations and inequalities.		
5.03 Use and evaluate algebraic expressions, linear equations or inequalities to solve problems.		
5.04 Develop fluency in the use of formulas to solve problems.		
Extended Standard: Demonstrate and extend patterns (emphasize relation [set of ordered pairs] and function). Solve simple one-step equations.		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Demonstrate the ability to create and extend patterns • Demonstrate concept of equality by solving simple one-step equations • Demonstrate understanding of ordered pairs 	<ul style="list-style-type: none"> • Demonstrate ability to recognize, repeat, copy, and extend a pattern • Demonstrate knowledge of equality • Demonstrate knowledge of ordered pairs 	<ul style="list-style-type: none"> • Distinguish between equal and less • Demonstrate ability to repeat and/or extend a pattern

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

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Grade 7, Comp 5 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Use changing patterns to complete 3-4 step collating tasks (ex. – yellow, white blue vs. white, blue yellow) • Follow a 3-4 step (5-7 step) pattern (varies according to visual cues) to complete a vocational task • Complete pattern for folding clothes (towels, socks, shirts, pants) • Sequence 3-5 objects from smallest to biggest • Sequence objects from short to long • Sequence objects by weight or volume • Duplicate arrangement of objects according to pre-set patterns (stack 10 cans per shelf, vs 2 lines of 5 cans per shelf) • Open combination locks using different combination patterns 	<ul style="list-style-type: none"> • Replicate a 3+ pattern with objects, pictures, vocalization, rhythms; movements in sequence following visual cues • Create matched sets with objects; using a scale, balance sets of objects; create equal/ not equal sets with manipulatives • Package objects using a jig for a single product with up to 3 items: wrap fork, knife, spoon; bundle straws; pair 2 socks; • Follow pattern to set table (lunch placemat vs. snack placemat) • Use pattern to complete 2-step collating task • Sequence objects on string/wire given changing pattern models (create jewelry) • Follow a 1-2 step changing pattern to complete an assembly or packaging vocational task • Follow exercise routine with visual patterns as cue (exercise sequence 1 vs. 2) 	<ul style="list-style-type: none"> • Indicate recognition (eye movements, pointing, head movement) of equal and less: sort multiple objects that are the same except for 1 distinction of either size, volume, mass, or length (wash cloths & towels; crew socks & long socks; big blocks and small blocks) • Indicate recognition (eye movements, pointing, head movement) of repeating a pattern: hit a switch to repeat a musical, verbal or visual pattern: (clapping to a rhythm; block patterns; repeating vocalization-saying 1,2,3 before you lift student) • Indicate readiness to make a transition by making a physical response after teacher touches him/her on cheek three times (while counting aloud) • Grasp, relax, move or activate an electronic device ,etc. on the teacher’s count of ____ • Recognize pattern of sounds by turning toward door to go outside (3 beeps means outside time) • Follow pattern to transition from one place to another (march to counting pattern)

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Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Math		Grade Level: 8	
Competency Goal 1: The learner will understand and compute with real numbers.			
Objectives:			
1.01 Develop number sense for the real numbers. Define and use irrational numbers. Compare and order. Use estimates of irrational numbers in appropriate situations.			
1.02 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.			
Extended Standard: Develop numbers sense for real numbers. Develop flexibility in solving mathematical problems by selecting strategies and using appropriate technology.			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate understanding of number positioning on number line • Demonstrate appropriate use of technology to solve mathematical problems. • Compute sums, differences and products • Demonstrate understanding of division • Demonstrate understanding of decimals • Demonstrate understanding of percent 	<ul style="list-style-type: none"> • Demonstrate knowledge of counting on number line • Demonstrate technology skills to solve mathematical problems • Compute sums and differences without regrouping using models or concrete objects • Demonstrate knowledge of more or less (compare quantities to identify more or less) 	Pre-symbolic Access Points <ul style="list-style-type: none"> • Demonstrate awareness of differences in amount of objects • Demonstrate awareness of addition by combining objects 	

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 8, Comp 1 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Count out classroom materials or objects to specified number • Count number of days to special event • Follow directions which use ordinal numbers (go to second door, point to 3rd apple) • Describe items that are found in various positions within a sequence of first through fifth • Use dollar-up method to make purchases • Determine how much money is needed to make purchases • Determine how much money is needed to purchase an item or items (adding prices) • Add 2-digit numbers with naming or no renaming • Subtract a 1 or 2 digit number from a 2 digit number with renaming or no renaming • Skip count by 2, 5, 10 or 25 • Multiply 1 digit factor by 1 digit factor • Solve multiplication word problems with manipulatives • Match fraction pieces to picture representation (object to picture of pieces of pie, measuring utensils) • Use fraction concept to divide snack items equally between peers • Use coins and bills to show different combinations of money have the same value (5 one dollar bills equal five dollar bill, etc.) • Identify combinations of coins that equal one dollar • Count sets of coins to make purchase • Write value of coins/dollar amount with decimal • Identify dollar and cents amounts in relation to position of decimal 	<ul style="list-style-type: none"> • Using a number line, move to the appropriate digit by using counted objects, picture/symbol of numerals, and/or verbal directions. • Following a pattern or guide, use a calculator to add single digit numbers; play computer games, using assistive technology devices as needed • Use manipulatives to create and solve written math problems without regrouping. • Present 2 or more pictures of items and student indicate more/less: (pictures of magazines, pic syms of food items, cars/trucks) • Indicate one, two, three ‘more’ • Indicate one, two, three ‘less’ • Indicate more or less when given two distinct sets of objects • Add two one-digit numbers up to 5 with objects • Locate prices on items for purchase on shelves • Count to ___ while performing an activity (e.g., wash hands, wipe table, track or swim laps, etc.) • Rote count to 3, to 5, etc. • Count out classroom materials/objects to specified number • Match number of functional objects to number on card • Select task by matching number on card to number on task or on phone • Locate rooms/offices/grocery aisles by number using a number card as a reference • Respond to use of ordinals (1st, 2nd, 3rd) during turn-taking, schedule activities, lining up, etc. • Use money diagram/jig (picture dictionary of money values) to count or determine number of coins to make a purchase (match value of item to jig) 	<ul style="list-style-type: none"> • Indicate recognition (i.e. one full eye gaze, point/turn, head movement) of difference in amounts: containers of familiar, functional objects; kitchen utensils, plates, cups, work materials; etc. • Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of addition by combining objects: assemble items with no more than 2 parts (toothbrush and holder; stack 2 or more objects; stack cups, stack plates) • Demonstrate attention toward a set of objects while teacher counts objects • Demonstrate attention to objects while teacher puts objects into container by corresponding number • Demonstrate attention toward a set of number cards while teacher counts • Indicate one object and then another, as teacher counts ‘one,’ ‘two’ • Demonstrate 1:1 correspondence by exchanging money as object to receive another object • Recognize and select money as object for exchange

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

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Subject: Math		Grade Level: 8	
Competency Goal 2: The learner will understand and use measurement concepts.			
Objectives:			
2.01 Determine the effect on perimeter, area or volume when one or more dimensions of two- and three-dimensional figures are changed.			
2.02 Apply and use concepts of indirect measurement.			
Extended Standard: Recognize how change in one dimension of a figure affects area, perimeter or volume.			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> Predict impact of changes on surface area and/or volume 		<ul style="list-style-type: none"> Demonstrate ability to differentiate volume and/or area of objects of same shape but different size 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> Demonstrate an awareness of changes in volume and surface area (more and less). 	

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Grade 8, Comp 2 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> Choose from two objects the one that is described in simple measurement concepts (big/little, narrow/wide, thick/thin, full/empty) Match and uses appropriate measurement tool with object being measured (cup to liquid, measuring tape to furniture or space) Measure the distance around during mobility training/physical therapy activities by choosing card with correct distance written on it (i.e., 2 steps, 7 steps, number of wheel chair pushes around table, etc.) Predict and compare volume and surface area changes for different size containers and shapes (with two containers of equal height but one is wider, which one holds more, less, with two tables of equal length but one is wider, which one takes longer to get around, etc.) 	<ul style="list-style-type: none"> Provide a box or container, chooses from appropriate/inappropriate amount of contents to fill (2-Liter sized drink crate-choose either 2 liters or 12 oz bottles; legal sized envelopes and manila envelope-choose appropriate for 8 X 10 piece of unfolded paper); Match two-dimensional figures to similar three dimensional figures Match similar two-dimensional figures that differ on 1 attribute (size) Match three-dimensional figures that differ on 1 attribute – either volume or surface area (all cylindrical cans go on shelf, rectangular boxes go on another shelf) Match three-dimensional objects to photos or scale drawings on shelf, in packaging tasks, in functional environments Organize objects of same shape but different size on shelf or in display Cover the perimeter of a shape with paint 	<ul style="list-style-type: none"> Indicate recognition of concepts related to area and perimeter or volume: appropriate/inappropriate size container and contents to be contained: (small cup and large pot with bag of beans; large bowl and small cup with bag of popcorn; choose between appropriate/inappropriate sized clothes (huge difference in size); sm. sample cup and 8 oz drinking cup with juice) When provided with appropriate lid, secure lid to container (puts lid on box, etc.) Fill container to rim, stop filling when container is full Adjust a bottom sheet to fit on a bed; cover top of bowl with lid or clear wrap; filling muffin cup with paper fillers and/or batter; filling laundry cup with detergent; Fill an empty box with packing peanuts; pour material into container until full Adjust a table cloth on a table to cover surface

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Subject: Math		Grade Level: 8	
Competency Goal 3: The learner will understand and use properties and relationships in geometry.			
Objectives:			
3.01 Represent problem situations with geometric models.			
3.02 Apply geometric properties and relationships, including the Pythagorean theorem, to solve problems.			
3.03 Identify, predict, and describe dilations in the coordinate plane.			
Extended Standard: Identify, predict, describe and illustrate dilations (stretching and shrinking).			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> Demonstrate a stretch or shrink of a triangle, square, rectangle or circle 		<ul style="list-style-type: none"> Identify figures as 'smaller' or 'larger' than an original object/figure 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> Demonstrate awareness of like objects Construct a 3-dimensional figure 	

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Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 8, Comp 3 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • While using a cursor on a computer (clay, putty, string) to stretch or shrink a shape, identify change in size • Identify dilations (stretch and shrink) of familiar objects (identify that a 12 oz. can and a 28 oz. can are same shape with different volume, length, width); identify increases in length and width and volume (series of cans, boxes, etc.) • Given a small dough ball that covers a small circular pan, estimate size of dough ball necessary for a large circular pan • Identify container size necessary to hold foods as expand from hydration or cooking 	<ul style="list-style-type: none"> • Sequence pictures of the same object from smallest to largest and from largest to smallest; give multiple pictures of the same object, point/indicate smaller/larger upon request; sequence or arrange similar objects in array from small to large • Indicate and predict changes in size of objects as a result of physical changes (indicate that balloon will be smaller if air escapes, vice versa) • Organize objects by size on shelf or in display • Organize large books on tall shelf, smaller books on short shelf • Stack measuring cups (similar containers, baking dishes) for storage • Roll out dough to completely cover the surface of a baking pan (square vs. circular vs. rectangular pans) • Indicate expansion in size from hydration of dried beans and other foods 	<ul style="list-style-type: none"> • Indicate recognition (eye gaze, pointing) of like objects by sorting functional objects (large socks vs. small socks – very significant difference) • Sort plates on one shelf and cups on another • Sort cans on one shelf and boxes on another • Sort books on one shelf and CDs on another • Indicate recognition (eye gaze, pointing, touching) of a 3 dimensional figure: inflating a balloon; blowing bubbles physically or with assistive technology (switch to inflate or deflate)

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Math		Grade Level: 8	
Competency Goal 4: The learner will understand and use graphs and data analysis.			
Objectives:			
4.01 Collect, organize, analyze, and display data (including scatterplots) to solve problems.			
4.02 Approximate a line of best fit for a given scatterplot; explain the meaning of the line as it relates to the problem and make predictions.			
4.03 Identify misuses of statistical and numerical data.			
Extended Standard: Collect, organize and display data to solve problems (goal is to use graphs and data – scatter plots, bar graphs, line graphs, tally, stem and leaf plots, pictographs, Venn diagrams, circle graphs, line plots, tables).			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> Organize data for display Create data display Analyze data to identify mode of a data set 		<ul style="list-style-type: none"> Compare data to identify mode of a data set Organize data for pictorial display Create data display 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> Demonstrate awareness of organization for object/data display (data display is symbolic, understanding ‘more as increase,’ ‘less as decrease,’ and same are necessary skills to understand and use data display) 	

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 8, Comp 4 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Sign self into class attendance chart • Place picture symbol of work task on graph • Place number cards/ letter cards of work tasks on graph • Self-graphing after mobility training to display distance • Use a line graph to represent information • Interpret attendance chart by quantifying /comparing data (how many girls present today vs. how many boys) • Interpret weather chart information by quantifying and/or comparing weather data (how many cloudy vs. sunny days this month?) • Locate TV show listed in time/channel chart • Put marker on chart after chore completion • Identify completion of work activity by putting work symbol on chart • Identify completion when work chart is full 	<ul style="list-style-type: none"> • Respond to graphed calendar data (weather, attendance, repeated events); respond to graphed student data (how many wore coats or sweaters, have toboggans or hats, wear glasses or no glasses, prefer pizza to hamburgers; magazine preferences) • Color bar graph when given data; glue pictures to create a pictograph • Use pictures to sequence an event or activity; sort and graph pictures/objects by 1 attribute • Stack legos, beads, foam hair rollers, washers, etc. on spindle for each work task completed to create an object graph • Place bead or small object on line graph • Pull Velcro marker off line graph to indicate finished activity • Place photograph of self on attendance graph indicating presence • Place photo on correct portion of graph to indicate student attending vs. not attending school • Count/ manipulate stickers on behavior chart to determine rewards • Indicate completion when work chart is full 	<ul style="list-style-type: none"> • Indicate recognition (eye movements, pointing, head movement) of more as precursor to ‘most frequently occurring’: indicate to add more in order to fill a container (add cereal to a partially-filled bowl; liquid to a partially-filled measuring cup) • Indicate one object and then another as teacher counts ‘one,’ two’ • Fill bucket with tennis balls to ‘stop line’ to develop ability to understand completion on an object chart • Display data on an object chart by grasping an object (ball, jingle object, etc.) to place in can – to add to object graph • Reach toward or directs attention to sticker or stamp for chart upon task completion • Indicate photo of self to communicate presence so teacher will put picture on attendance graph

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Math		Grade Level: 8	
Competency Goal 5: The learner will understand and use linear relations and function.			
Objectives:			
5.01 Develop an understanding of function. Translate among verbal, tabular, graphic, and algebraic representations of functions. Identify relations and functions as linear or nonlinear. Find, identify, and interpret the slope (rate of change) and intercepts of a linear relation. Interpret and compare properties of linear functions from tables, graphs, or equations.			
5.02 Write an equation of a linear relationship given: two points, the slope and one point on the line, or the slope and y-intercept.			
5.03 Solve problems using linear equations and inequalities; justify symbolically and graphically.			
5.04 Solve equations using the inverse relationships of addition and subtraction, multiplication and division, squares and square roots, and cubes and cube roots.			
Extended Standard: Demonstrate and extend patterns (emphasize relation [set of ordered pairs] and function). Solve simple one-step equations. Recognize and describe constant and varying rates of change (slower and faster).			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate the ability to create and extend patterns • Demonstrate the ability to recognize and describe constant and varying rate of change (faster and slower) • Demonstrate concept of equality by solving simple one-step equations • Demonstrate concept of equality by solving simple one-step equations 		<ul style="list-style-type: none"> • Demonstrate ability to recognize constant and varying rates of change (faster and slower) • Demonstrate knowledge of ordered pairs • Demonstrate knowledge of equal and not equal sides of an equation 	
Pre-symbolic Access Points		<ul style="list-style-type: none"> • Demonstrate awareness of constant and varying rates of change (faster & slower) • Distinguish between equal and less • Demonstrate ability to repeat and/or extend a pattern 	

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 8, Comp 5 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Use changing patterns to complete 3-4 step collating tasks (ex. – yellow, white blue vs. white, blue yellow) • Follow a 3-4 step (5-7 step) pattern (varies according to visual cues) to complete a vocational task • Complete pattern for folding clothes (towels, socks, shirts, pants) • Sequence 3-5 objects from smallest to biggest • Sequence objects from short to long • Sequence objects by weight or volume • Duplicate arrangement of objects according to pre-set patterns (stack 10 cans per shelf, vs 2 lines of 5 cans per shelf) • Open combination locks using different combination patterns 	<ul style="list-style-type: none"> • Imitate changing rhythmic patterns using musical instruments, hands, feet or switch devices; indicate which hand on a clock moves faster/slower; fast/slow motor movement • Package objects using a jig for a single product with up to 5 items: wrap fork, knife, spoon; bundle 5 straws; pair 2 socks; • Create matched/unmatched sets with objects; use a scale to indicate equal and not equal, create equal/not equal sets of objects • Imitate changing rhythmic patterns using functional objects, hands, feet or switch devices to demonstrate faster and slower; indicate which hand on a clock moves faster/slower; demonstrate faster and slower through actions with familiar functional objects • Follow pattern to set table (lunch placemat vs. snack placemat) • Use pattern to complete 2-step collating task • Sequence objects on string/wire given changing pattern models (create jewelry) • Follow a 1-2 step changing pattern to complete an assembly or packaging vocational task • Follow exercise routine with visual patterns as cue (exercise sequence 1 vs. 2) 	<ul style="list-style-type: none"> • Indicate recognition of rates of change: Use wind-up toys (one fast/one slow); respond to varying rhythms in music; • Indicate recognition (eye movements, pointing, head movement) of repeating a pattern: hit a switch to repeat a musical, verbal or visual pattern: (clapping to a rhythm; block patterns; repeating vocalization-saying 1,2,3 before you lift student) • Indicate readiness to make a transition by making a physical response after teacher touches him/her on cheek three times (while counting aloud) • Grasp, relax, move or activate an electronic device ,etc. on the teacher’s count of ____ • Recognize pattern of sounds by turning toward door to go outside (3 beeps means outside time) • Follow pattern to transition from one place to another (march to counting pattern)

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Algebra		Grade Level: 9-12	
Competency Goal 1: Competency Number and Operations: The learner will perform with numbers and expression to solve problems			
Objectives:			
1.01 Write equivalent forms of algebraic expressions to solve problems. Apply the laws of exponents. Operate with polynomials. Factor polynomials.			
1.02 Use formulas and algebraic expressions, including iterative and recursive forms, to model and solve problems.			
1.03 Model and solve problems using direct variation.			
Extended Standard: Develop number sense for real numbers. Develop flexibility in solving mathematical problems by selecting strategies and using appropriate technology.			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate ability to perform tasks with appropriate technology • Demonstrate ability to perform basic number operations • Demonstrate ability to represent numbers in different forms • Demonstrate ability to estimate values and quantities • Demonstrate ability to discriminate whole numbers from fractions • Associate counting up/down with increase/decrease 		<ul style="list-style-type: none"> • Demonstrate ability to use numbers to organize materials • Demonstrate ability to count objects in a set • Demonstrate knowledge of more or less (compare quantities to identify more or less) • Demonstrates ability to compute sums and differences • Demonstrate technology skills to solve mathematical problems 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> • Demonstrate ability to perform a requested activity on a specified count • Demonstrate awareness of addition by combining objects • Demonstrate awareness of differences in amount of object • Demonstrate awareness of whole vs. part • Demonstrate awareness of “more” as an increase 	

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 9-12, Comp 1 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> Count out classroom materials or objects to specified number Count number of days to special event Follow directions which use ordinal numbers (go to second door, point to 3rd apple) Describe items that are found in various positions within a sequence of first through fifth Use dollar-up method to make purchases Determine how much money is needed to make purchases Determine how much money is needed to purchase an item or items (adding prices) Add 2-digit numbers with naming or no renaming Subtract a 1 or 2 digit number from a 2 digit number with renaming or no renaming Skip count by 2, 5, 10 or 25 Multiply 1 digit factor by 1 digit factor Solves multiplication word problems with manipulatives Match fraction pieces to picture representation (object to picture of pieces of pie, measuring utensils) Use fraction concept to divide snack items equally between peers Use coins and bills to show different combinations of money have the same value (5 one dollar bills equal five dollar bill, etc.) Identify combinations of coins that equal one dollar Count sets of coins to make purchase Write value of coins/dollar amount with decimal Identify dollar and cents amounts in relation to position of decimal Use clock picture (with specific time noted) to match to clock in room as indicator of time to transition Identify relevant time on clock (to hour, half hour) as related to own routines 	<ul style="list-style-type: none"> Match number from work system to numbered job on shelf; sort and collate numbered pages in order; match attendance folder with room number to appropriate classroom Indicate by actions and words the number of objects in a set: twelve eggs to a carton; X # drink bottles to a crate; 1 page/card to an envelope Give 2 or more pictures of items or actual objects of varying amounts, indicate more/less: (pictures of food, pic syms of same coins/bills; items: CDs/grocery items/laundry/magazines) Following a pattern or guide, use a calculator to add single digit numbers; play computer games, using assistive technology devices as needed for manipulating numbers or amounts of material Use a basic function calculator to solve simple mathematical problems; play appropriate computer games involving manipulation of numbers and amount; Indicate one, two, three 'more' Indicate one, two, three 'less' Indicate more or less when given two distinct sets of objects Add two one-digit numbers up to 5 with objects Count to ___ while performing an activity (e.g., wash hands, wipe table, track or swim laps, etc.) Rote count to 3, to 5, etc. Count out classroom materials/objects to specified number Match number of functional objects to number on card Select task by matching number on card to number on task or on phone Locate rooms/offices/grocery aisles by number using a number card as a reference Respond to use of ordinals (1st, 2nd, 3rd) during turn-taking, schedule activities, lining up, etc. Use money diagram/jig (picture dictionary of money values) to count or determine number of coins to make a purchase (match value of item to jig) Demonstrates time concept to organize actions and materials: respond to count down and makes transition Indicate clock as an indicator of time Use a work list or schedule to identify next activity, to indicate 1st, next (possibly 2nd) Use calendar to indicate today's activity vs. activities on other days 	<ul style="list-style-type: none"> Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of an activity following a count: participates in an activity following a count (1,2,3-student moves); anticipate an activity following a count (when teacher says "on the count of 3: 1,2,3", then lifts/moves/position, student will be lifted/moved/position) Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of addition by combining objects: assemble items with no more than 2 parts (nut & bolt, toothbrush and holder; stack 2 or more objects using a model to fill a bin or container; stack utensils in a tray (forks. knives, spoons) Indicate recognition (i.e. one full eye gaze, point/turn, head movement) of difference in amounts: containers of familiar daily objects, nuts/bolts; vocational turns; etc. Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of addition by combining objects: assemble items with no more than 2 parts -toothbrush and holder; stack 2 or more objects; stack cups, stack plates Indicate recognition (i.e. eye gaze, point or turn to, vocalization) of more as an increase: indicate to add more in order to fill a container (add cereal to a partially-filled bowl; liquid to a partially-filled measuring cup) Demonstrate attention toward a set of objects while teacher counts objects Demonstrate attention to objects while teacher puts objects into container by corresponding number Demonstrate attention toward a set of number cards while teacher counts Indicate one object and then another, as teacher counts 'one,' 'two' Demonstrate 1:1 correspondence by exchanging money as object to receive another object Recognize and select money as object for exchange Indicate 'what's next' in a sequence of two activities (Use of objects for activities in 'first-then' display)

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student's mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Algebra		Grade Level: 9-12	
Competency Goal 2: Geometry and Measurement : The learner will describe geometric figures in the coordinate plane algebraically			
Objectives:			
2.01 Find the lengths and midpoints of segments to solve problems.			
2.02 Use the parallelism or perpendicularity of lines and segments to solve problems.			
Extended Standard: Solve problems using two- and three- dimensional shapes. Demonstrate or model transformation of figures in a plane. Solve perimeter, area, and volume problems. Describe, compare and classify geometric figures.			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate ability to estimate needed amount of materials for a task • Solve problems using perimeter, area and/or volume • Apply appropriate measurement techniques to authentic tasks • Demonstrate ability to model transformation of figures in a plane (ex: rotate pad of paper to write on with heading on top) • Classify geometric figures • Sort objects based on like physical attributes 		<ul style="list-style-type: none"> • Demonstrate knowledge of linear, area and/or volume concepts • Recognize comparisons of magnitude (long/short, full/empty, etc.) • Indicate basic shapes (2 and/or 3 dimensional) • Sort objects based on like physical attributes 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> • Recognize or indicate change in position (up/down, left/right) • Respond to positional directions (up/down, left/right) • Demonstrate awareness of different shapes • Demonstrate awareness of concrete measurement 	

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 9-12, Comp 2 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> Use hardware items or manufacturing materials to duplicate a picture model of a 3 dimensional figure; stack books according to a given diagram; use commercial products to produce a model of a given figure Write/draw object on paper with paint and fold paper in half; match pictures of 2 parallel halves of a given object to complete the picture. Match and use appropriate measurement tool with object being measured (cup to liquid, measuring tape to furniture or space) Measure the distance around during mobility training/physical therapy activities by choosing card with correct distance written on it (i.e., 2 steps, 7 steps, number of wheel chair pushes around table, etc.) Predict and compare volume and surface area changes for different size containers and shapes (with two containers of equal height but one is wider, which one holds more, less, with two tables of equal length but one is wider, which one takes longer to get around, etc.) Choose from two objects the one that is described in simple measurement concepts (few/many, narrow/wide, thick/thin, light/heavy, full/empty) Match and use appropriate measurement tool with object being measured (scale to weight, cup to liquid, measuring tape to furniture or space) Measure the distance moved during mobility training/physical therapy activities by choosing card with correct distance written on it (i.e., 'length of hall, length of classroom, 2 steps, 7 steps, etc.) Model transformations: block and front materials on a shelf, create symmetry in display of objects After surveying space and size of materials, determine estimate of how many materials are necessary to fill space (how many folded towels go on a shelf, etc.) Demonstrate ability to tell time to hour, half-hour, quarter hour, 5 minutes Demonstrate ability to associate specific times with activity Demonstrate ability to regulate actions (speeds up, adjusts rate or expectations) using a clock 	<ul style="list-style-type: none"> Cover the perimeter of a shape with paint Sort towels/socks/short-long pants/pillows and cases (reg. vs. king) by size; Transform size by folding objects to fit in designated space (folding clothes or towels to fit space) Match congruent shapes (crackers of same shape/size, bread slices to bread slices, hamburger bun top to bun bottom, hoagie roll top and bottom); Using a picture giving top/front view, match to front view of object Choose from two objects the one that addresses simple measurement concepts: big/little, full/empty, short/tall, short/long, less/more Use non-standard units of measurement (i.e., number of steps from desk to classroom door, number of pushes of wheelchair to go from place to place in class, Choose the correct tool of measurement from a choice of two (ruler, measuring cup, measuring tape, etc.) Choose the correct measurement tool to complete a vocational task (i.e., choosing the measuring cup for flour, choosing the ruler to measure items for packaging, etc.) Follow an object recipe when ingredients are laid out with measuring utensils in sequence to make a simple snack Match two-dimensional figures to similar three dimensional figures Match similar two-dimensional figures that differ on 1 attribute (size) Match three-dimensional figures that differ on 1 attribute – either volume or surface area (all cylindrical cans go on shelf, rectangular boxes go on another shelf) Match three-dimensional objects to photos or scale drawings on shelf, in packaging tasks, in functional environments Organize objects of same shape but different size on shelf or in display Indicate or replicate positions in space when given a picture illustrating position or a verbal cue: in/out, front/back, over/under, behind/in front, bottom/top 	<ul style="list-style-type: none"> Indicate need to change position: for desired item in plain view Indicate which shape fits in which container: tennis balls in tennis ball cans, recycle cans in round hole vs. papers in long slot; match lids and containers (square/rectangle/circle) of different sizes Cover the perimeter of a shape with paint; fill an empty box with packing peanuts; pour material into container until full Put a bottom sheet on a bed; cover top of bowl with lid or clear wrap; filling muffin cup with paper fillers and/or batter; filling laundry cup with detergent; Fill an empty box with packing peanuts; pour material into container until full Stop at finish line to indicate done with length of track Focus on appropriate tool of measurement as teacher demonstrates steps to complete a simple recipe Move body parts (ex. Eye gaze ,head movement, etc.) when given positional directions ___ up, ___ down, ___ side during therapy or class activity Focus attention to designated track for ___ ft./yards/meters when preparing for mobility training in therapy sessions Sort two objects into a 'forced sort' insert jig (recycling, stack cups and plates, etc.)

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student's mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Algebra		Grade Level: 9-12	
Competency Goal 3: Data, Analysis and Probability : The learner will collect, organize and interpret data with matrices and linear models to solve problems			
Objectives:			
3.01 Use matrices to display and interpret data.			
3.02 Operate (addition, subtraction, scalar multiplication) with matrices to solve problems.			
3.03 Create linear models for sets of data to solve problems. Interpret constants and coefficients in the context of the data. Check the model for goodness-of-fit and use the model, where appropriate, to draw conclusions or make predictions.			
Extended Standard: Collect, organize and display data to solve problems (goal is to use graphs and data – scatter plots, bar graphs, line graphs, tally, stem and leaf plots, pictographs, Venn diagrams, circle graphs, line plots, tables). Describe events as certain, impossible, more likely or less likely to occur. Demonstrate permutations and combinations of items. Identify mode of a set of data (most often occurring).			
Symbolic Access Points		Early Symbolic Access Points	
<ul style="list-style-type: none"> • Demonstrate ability to collect, organize, interpret, and display data • Create permutations and combinations of items • Demonstrate ability to describe likelihood of events (schedule predictions) • Identify various graphical/pictorial representations of data 		<ul style="list-style-type: none"> • Associate cause and effect relationship for certain events (using an electronic switch to turn on/off a preferred toy) • Demonstrate ability to participate in data collection • Demonstrate ability to display data • Demonstrate ability to interpret data (calendar, self-schedule) • Indicate various graphical/pictorial representations of data • Create permutations of 3 or more items 	
		Pre-symbolic Access Points	
		<ul style="list-style-type: none"> • Demonstrate awareness of chart or work system • Demonstrate ability to participate in data collection • Demonstrate awareness of probability (certain, impossible, more or less likely to occur) • Recognize different order of objects in an arrangement/display • Demonstrate ability to identify mode of a data set (recognize 'more as increase,' less as decrease,' and same 	

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 9-12, Comp 3 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Chart community-based work site attendance for attendance, amount of time in work, arriving on time, etc. • Identify completion when work chart is full • Sign self into class attendance chart • Place picture symbol of work task on graph • Place number cards/ letter cards of work tasks on graph • Self-graphing after mobility training to display distance • Use a line graph to represent information • Interpret attendance chart by quantifying /comparing data (how many girls present today vs. how many boys) • Interpret weather chart information by quantifying and/or comparing weather data (how many cloudy vs. sunny days this month?) • Locate TV show listed in time/channel chart • Put marker on chart after chore completion • Indicates completion of work activity by putting work symbol on chart • Use calendar to choose different days for chores, special events, shopping activities, or leisure activities for today, tomorrow, other days • Demonstrate ability to use schedule to plan for daily activities – adjust schedule to address priorities of the day 	<ul style="list-style-type: none"> • Stack washers counters, etc. on spindle for each work task completed to create an object graph • Place bead or small object on line graph • Pull Velcro marker off line graph to indicate finished activity • Place photograph of self on attendance graph indicating presence • Place photo on correct portion of graph to indicate student attending vs. not attending school • Count/ manipulate stickers on behavior chart to determine rewards • Indicate completion when work chart is full 	<ul style="list-style-type: none"> • Indicate one object and then another as teacher counts ‘one,’ two’ • Focus attention to object-level work system (left-to-right work system, etc.) in work area • Focus attention to object schedule at appropriate times • Fill bucket with tennis balls to ‘stop line’ to develop ability to understand completion on an object chart • Display data on an object chart by grasping an object (ball, jingle object, etc.) to place in can – to add to object graph • Reach toward or directs attention to sticker or stamp for chart upon task completion • Indicate photo of self to communicate presence so teacher will put picture on attendance graph • Indicate students are present to collect daily class roll information

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).

Subject: Algebra	Grade Level: 9-12	
Competency Goal 4: Algebra : The learner will use relations and functions to solve problems		
Objectives:		
4.01 Use linear functions or inequalities to model and solve problems; justify results. Solve using tables, graphs, and algebraic properties. Interpret constants and coefficients in the context of the problem.		
4.02 Graph, factor, and evaluate quadratic functions to solve problems.		
4.03 Use systems of linear equations or inequalities in two variables to model and solve problems. Solve using tables, graphs, and algebraic properties; justify results.		
4.04 Graph and evaluate exponential functions to solve problems.		
Extended Standard: Demonstrate and extend patterns (emphasize relation [set of ordered pairs] and function). Solve and create simple one- and two-step equations. Recognize and describe constant and varying rates of change (faster and slower).		
Symbolic Access Points	Early Symbolic Access Points	Pre-symbolic Access Points
<ul style="list-style-type: none"> • Demonstrate ability to create and extend patterns with words, actions or objects • Demonstrate ability to solve simple one and two-step equations • Demonstrate ability to describe constant rate of change (faster and slower) • Demonstrate an understanding of real world applications of functions 	<ul style="list-style-type: none"> • Demonstrate ability to recognize, repeat, copy, and extend a pattern • Demonstrate ability to solve 1-step equations using models • Demonstrate ability to recognize and describe constant and varying rates of change (faster and slower) 	<ul style="list-style-type: none"> • Demonstrate awareness of a repetitive pattern • Demonstrate ability to repeat and/or extend a pattern • Respond to changed quantity (two objects/one object) • Demonstrate awareness of constant and varying rates of change (faster and slower)

Communicate or Demonstrate Understanding: At this level, the student is actively demonstrating understanding of the concept through actions or words. The student manipulates materials with an understanding of relationship. The student will use the concept with familiar materials and situations and begins to apply the concept in a new situation.

Demonstrate Knowledge: Demonstrating knowledge requires more active and functional manipulation of the materials. Does the student demonstrate the ability to predict an action or to connect related objects or materials through a concept? Demonstrating knowledge implies acting with some knowledge of a concept.

Demonstrate Awareness: Note that demonstrating awareness is consistently used as the simplest way that a student can demonstrate competence. Through repeated exposure to materials and their use at a functional level, does the student demonstrate familiarity or expectation of a specific result with the materials through eye gaze and attention, through movements, or through expression?

Grade 9-12, Comp 4 Symbolic Demonstrators	Early Symbolic Demonstrators	Pre-Symbolic Demonstrators
<ul style="list-style-type: none"> • Use changing patterns to complete 3-4 step collating tasks (ex. – yellow, white blue vs. white, blue yellow) • Follow a 3-4 step (5-7 step) pattern (varies according to visual cues) to complete a vocational task • Complete pattern for folding clothes (towels, socks, shirts, pants) • Sequence 3-5 objects from smallest to biggest • Sequence objects from short to long • Sequence objects by weight or volume • Duplicate arrangement of objects according to pre-set patterns (stack 10 cans per shelf, vs 2 lines of 5 cans per shelf) • Open combination locks using different combination patterns 	<ul style="list-style-type: none"> • Imitate changing rhythmic patterns using functional objects, hands, feet or switch devices to demonstrate faster and slower; indicate which hand on a clock moves faster/slower; demonstrate faster and slower through actions with familiar functional objects • Follow pattern to set table (lunch placemat vs. snack placemat) • Use pattern to complete 2-step collating task • Sequence objects on string/wire given changing pattern models (create jewelry) • Follow a 1-2 step changing pattern to complete an assembly or packaging vocational task • Follow exercise routine with visual patterns as cue (exercise sequence 1 vs. 2) 	<ul style="list-style-type: none"> • Indicate readiness to make a transition by making a physical response after teacher touches him/her on cheek three times (while counting aloud) • Grasp, relax, move or activate an electronic device, etc. on the teacher’s count of ____ • Recognize pattern of sounds by turning toward door to go outside (3 beeps means outside time) • Follow pattern to transition from one place to another (march to counting pattern)

Identify: The student generates response independently and communicates the response in their mode of communication (verbal, eye gaze, switch, picture communication, etc).

Indicate: The student chooses from an array of responses (concrete objects, pictures, etc) via the student’s mode of communication (verbal, eye gaze, switch, picture communication, etc).