

**ONE ACTIVITY/PROJECT THAT COULD BE SHARED WITH ELEMENTARY LEARNERS:**

**GOAL 1: Use basic communication and mathematics skills**

Academic Expectation 1.6: Students manipulate information and communicate ideas with a variety of computational algorithms.

**A. One Sample Instructional Activity/Project for Elementary Learners that Incorporates this Academic Expectation Could Be:**

Students will play Scrabble. Each time students need to calculate the score of a play, they write an numerical algorithm expressing the calculation of the score (e.g., FROG on double word score represented as  $(4+1+1+2) \times 2 = 20$ ).

**B. Ways Students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS Could Demonstrate this Academic Expectation within this Sample Class Activity:**

- (1) The student will use the calculator to calculate the score from the written numerical algorithm..
- (2) The student will use the calculator to calculate the score when a peer states the algorithm verbally step by step.
- (3) Given an algorithm, the student creates a representation using manipulatives.
- (4) The student adds two numerals (1 through 9) using mental arithmetic.
- (5) The student will add a series of 3 digits using manipulatives.

(6)

(7)

(8)

(9)

(10)

**C. Ideas for Providing Students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS Opportunities to Practice Basic Skills and Critical Activities Found on their IEPs While Participating in this Class Activity:**

- (1) When players need to replenish their tiles, they will ask the student for one to seven tiles and the student will put the correct number into their hand. [TARGETED SKILL; functional academic skills; motor skills] {COACH: COMMUNICATION #7, SOCIALIZATION # 19, #20; RECREATION/LEISURE #38; SELECTED ACADEMICS #51}
- (2) The students will pick up one tile using pincer grasp and place it on a rack. [TARGETED SKILL: basic social skill, basic motor skill] {COACH: SOCIALIZATION #20}
- (3) The student read the letter on the each tile as it is placed on the board. [TARGETED SKILLS: functional academic skills] {COACH: APPLIED ACADEMICS #47}

(4)

(5)

**ONE ACTIVITY/PROJECT THAT COULD BE SHARED WITH MIDDLE SCHOOL LEARNERS:**

**GOAL 1: Use basic communication and mathematics skills**

Academic Expectation 1.6: Students manipulate information and communicate ideas with a variety of computational algorithms.

**A. One Sample Instructional Activity/Project for Middle School Learners that Incorporates this Academic Expectation Could Be:**

Students will plan, open, and operate a soft-serve ice cream sundae concession during lunch. In planning the effort, the students will calculate the cost of equipment rental, survey peers to establish need/desire for service, determine size of serving, determine price, decide upon toppings and their cost, determine cost per cup/cone, estimate profit per week. Student will decide whether to open the business.

**B. Ways Students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS Could Demonstrate this Academic Expectation within this Sample Class Activity:**

- (1) The student will use a calculator to make calculations verbally defined by a peer.
- (2) The student will accurately read a numerical algorithm written by a peer.
- (3) The student will accurately use a calculator to calculate a numerical algorithm written by a peer
- (4) The student will write a numerical addition algorithm dictated by a peer.
- (5) The student will use manipulatives to calculate a one digit minus one digit algorithm.

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**C. Ideas for Providing Students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS Opportunities to Practice Basic Skills and Critical Activities Found on their IEPs While Participating in this Class Activity:**

- (1) The student will go to three local stores and price a list of potential toppings. [TARGETED SKILLS: functional critical community activity, functional academic skill] {COACH: COMMUNICATION #7; SOCIALIZATION #19, #20, #22; PERSONAL MANAGEMENT #36; SELECTED ACADEMICS #42, #47, #49}
- (2) The student will assist a peer in tallying market surveys. [TARGETED SKILLS: social skills, communication skills, functional academic skills] {COACH: COMMUNICATION #7, #9; SOCIALIZATION #19, #20; SELECTED ACADEMICS #42, #44, #51; SCHOOL #65}
- (3) The student will present the results of the market survey to peers using his preprogrammed electronic communication device. [TARGETED SKILLS: communication skills, motor skills] {COACH: COMMUNICATION #11}

(4)

(5)

**ONE ACTIVITY/PROJECT THAT COULD BE SHARED WITH HIGH SCHOOL LEARNERS:**

**GOAL 1: Use basic communication and mathematics skills**

Academic Expectation 1.6: Students manipulate information and communicate ideas with a variety of computational algorithms.

Interview a committee from Habitat for Humanity to study the calculations that go into planning the building of a Habitat home for a family in their community. Student will explore the calculations involved in the purchase of property, purchase of material, administrative costs, issues of financing for the home buyer and other expenses in the process. Student will study efforts made to keep cost down.

**B. Ways Students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS Could Demonstrate this Academic Expectation within this Sample Class Activity:**

- (1) The student will use a calculator to make calculations defined by a peer.
- (2) The student will accurately read a numerical algorithm written by a peer.
- (3) The student will accurately use a calculator to calculate a numerical algorithm written by a peer
- (4) The student will write a numerical addition and/or subtraction algorithm dictated by a peer.
- (5) The student will use a calculator to make multiplication and division calculations defined by a peer as a written numerical algorithm.
- (6)
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- (8)
- (9)
- (10)

**C. Ideas for Providing Students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS Opportunities to Practice Basic Skills and Critical Activities Found on their IEPs While Participating in this Class Activity:**

- (1) The student will use his preprogrammed electronic communication device to ask a question of Habitat staff. [TARGETED SKILLS: communication skills, motor skills] {COACH: COMMUNICATION #12}
- (2) With the help of a peer, the student will access Habitat for Humanity on the Internet to gather information about the national impact of their efforts and report his findings to peers. [TARGETED SKILLS: motor skills, communication skills, functional academic skills] {COACH: COMMUNICATION #7; SOCIALIZATION #19, #20; SELECTED ACADEMICS #42, #46, #47, #55}
- (3) The student will operate a VCR to show a video that presents a national overview of Habitat for Humanity. [TARGETED SKILLS: motor skill, critical recreation/leisure activity] {COACH: SOCIALIZATION #19, #20; LEISURE/RECREATION #37}
- (4)
- (5)

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**General Demonstrators of this Academic Expectation which May Appropriate for students with DIVERSE EDUCATIONAL ABILITIES AND INSTRUCTIONAL NEEDS and Might be Adapted to a Variety of Age-Appropriate Activities or Projects:**

The student will:

- (1) Count the sum of two sets of objects.
- (2) Manipulate objects to represent the subtraction of one single digit number from another single digit number.
- (3) Develop a representation of a single digit by single digit multiplication algorithm define in written form.
- (4) Appropriately use the appropriate to calculate the amount of flooring needed for a given room.
- (5) Use a calculator to add a series of digits, given the sequence of digits in algorithm format.
- (6) Match the process sign on the calculator to the process sign in an algorithm.
- (7) State whether to add or subtract, when given an oral, one step real life situation requiring either addition or subtraction..
- (8) Use a calculator to determine how much sales tax will be charged on a given purchase under \$10.00
- (9) Use calculator to calculate the sale price of an item marked, "25% off."
- (10) Develop a representation of a linear numerical division algorithm, given a set of object.
- (11) Use paper and pencil to calculate two digit by two digit addition problems without carrying.
- (12) Given an addition real life word problem, the student will write the appropriate algorithm.
- (13) Estimate the total of two numbers, then use manipulatives to confirm estimate.
- (14) Calculate the time five hours in the future.
- (15) Accurately read a numerical algorithm written by a peer.
- (16)
- (17)
- (18)
- (19)
- (20)

**If You Are Using COACH-2,\* The following COACH Activities Might Fall within this Academic Expectation:**

APPLIED ACADEMICS: # 52, Computes numbers.

\* Giangreco, M.F., Cloninger, C.J., & Iverson, V.S. (1998). Choosing options and accommodations for children: A guide to planning inclusive education. 2<sup>nd</sup> Edition. Paul H. Brookes: Baltimore.)