**5 E Lesson Plan for E-teams STEM Thursday**

**Decimal Dough Lesson**

**Materials needed**

* Doughnut holes (150)
* Money Manipulatives (3 sets) each set should include….
  + (1)$5.00
  + (10) $1.00
  + (4) Quarters
  + (10) Dimes
  + (5)Nickels
  + (10) Pennies
* Brown paper bags (50)
* Napkins (150)
* Notecards with animal names
* Alphabet chart with instructions for “Decimal Dough.”
* Strips with decimal problems
* Menu

TEKS: (4)  Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:

(A)  add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;

**ENGAGE (5 Minutes)**

**Line ‘em up YouTube decimal song to review students**

[**https://www.youtube.com/watch?v=26nJw1Ko4-A**](https://www.youtube.com/watch?v=26nJw1Ko4-A)

**EXPLORE (15 minutes)**

Decimal Dough

In this activity, the students will be using decimals to figure out the value of their animal name by using a provided alphabet grid. The students will start with $100, and then add or subtract the decimals for each letter in their animal name. Although the original directions of this game say to use the students name, we will be giving each group an animal name to work on as a team for the sake of time.

* Each team will start with the amount of $100
* Each team will receive a note card with an animal name
* The teacher will put the alphabet table with the instructions for each letter on the Elmo
* The students will add and subtract amounts from the beginning total based on each letter of the animal name.
* The teacher can call on a student from each team to share the total value of their animal name to the class. As each team shares their total, the teacher can write each team, animal name, and total on the board so that the class can compare the results.

**EXPLAIN (15 minutes)**

Video

<http://education-portal.com/academy/lesson/adding-and-subtracting-decimals-examples-word-problems.html#lesson>

Teacher will clarify with students that adding and subtracting numbers with decimals is similar to adding without decimals.

* The teacher will remind the students that the only differences we need to remember is that
* You have to line up the decimal point
* You have to start from right to left

**ELABORATE (20 minutes)**

• The lead teacher will go through the first problem from the worksheet with the students using the menu prices.

• As the teacher works through the problem, the teacher will model how to find the prices from the menu and use them to solve the problem. (teacher can place menu or problem under the Elmo)

* After modeling the first problem, the lead teacher will allow the students to work on problems 2-4 with their ETEAMS Leader.
  + The students will use the money manipulatives to solve each problem.
  + The E-teams leader for each team of students will guide students through the process while monitoring/assisting students.
* The teacher will have the rest of the problems (10 problems) cut into strips and placed in spots along the hallway.
* Students will use a clipboard to record answers and work on their paper while looking for problems to solve in the hallway.
* Each ETEAMS Leader will assist 5 students in finding the problems and monitoring the students as they solve the problems.
* The ETEAMS Leaders will allow the students to work as independently as possible while monitoring and only intervening when students need assistance.
* If students have extra time or are finishing the problems quickly, the teacher will challenge the students to explain how they got the correct answer at each strip and explain what the main question is asking. The teacher can also go walk though the problems afterwards with the students and have the students rate the problems on which were the most difficult and which one were simple to solve.

**EVALUATE (10 minutes)**

[**https://www.youtube.com/watch?v=xk0-XpcujL8**](https://www.youtube.com/watch?v=xk0-XpcujL8)

(First 30 seconds of youtube video to bring students attention back to the front of the classroom and get them excited about the evaluating activity)

* Teacher will display doughnut holes with the new sign displaying the price for each doughnut hole.
* The teacher will challenge the students to determine how much each team would need to pay to buy a doughnut hole for each team member.
* STEM LEADERS will assist teams in calculating the amount of money needed to buy each team doughnut holes.
* When each team calculates the total amount. The team leader of each team will bring their total amount written on a card and purchase the doughnut holes for their team.
* Teacher will place the doughnut holes and napkins inside a brown paper bag to give to the team leader when given the total correct amount for the team.
* The students will be allowed to enjoy their doughnut holes with their team before they leave.