

Supporting Math at the Playdough Table

An illustration of a playdough table. In the center is a large, flattened piece of yellow playdough. On top of it are several colorful cookie cutters: a blue star, a blue cloud, a yellow heart, and an orange fish. To the right of the dough is a green rolling pin with red handles. Below the dough is a blue ice cream scoop. To the right of the scoop is a small yellow ball of playdough. The entire scene is set against a light orange, cloud-like background.

Number and Operations:

- Roll the playdough into long snakes. Use the snakes to form numerals. Close your eyes. Ask a friend to mix up the numerals in front of you. Feel a numeral. Can you name it?
- Roll the playdough into long snakes. Use the snakes to form numerals. Decorate each numeral with the corresponding number of beads. (i.e., Press five beads into the numeral 5.)
- Make birthday cakes. Use candles, short pieces of drinking straw or discarded marker caps to count out candles for each cake.
- Let's make peas! How many peas do you think you have - without counting? Count the peas as you squish them with your thumb!
- Scoop the dough with an ice cream scoop. "I'd like three scoops of ice cream, - with mint (green) and strawberry (pink). How many different ways can you make three scoops? (3 green scoops, 2 green and 1 pink, 1 green and 2 pink, 3 pink)"
- Use a playdough or garlic press to squish out "spaghetti." Roll the playdough into balls to make meatballs.
How many meatballs should we put on each plate? Let's count them.
You have two meatballs. How many will you have if I give you two more?
I have four meatballs. How can we share them fairly?

Geometry:

- "Tell me how you made that... What did you do first? Then? Next? After that? Last?"
- Make a stack of pancakes! Roll out your dough. Use the knife to cut circles. Stack up your pancakes. How many do you have?
- Roll out your dough. Use the knife to cut a circle, square, rectangle, triangle. Can you make any 3-dimensional shapes with your dough?
- Roll balls of colored playdough. Stack balls to build a tower. Use words to describe the position of each color in the structure. (i.e., "I used the big blue balls on the bottom. The red balls are on top of the blue. Yellow is in the middle...")
- Cut shapes from the playdough with cookie cutters and/or knives. What shapes do you see? Use the playdough shapes to build a picture or design.

Measurement/Comparison:

- Follow a recipe to measure and mix the playdough together.
Experiment: What will happen if we put in more flour/water/blue food coloring?
Less flour/water/blue food coloring? What will happen if we add _____?
- Make a variety of doughs to play with. (i.e., sawdust dough, salt dough, oatmeal dough, Kool-aid dough, coffee dough, Rubbery dough, soap dough, pumpkin pie dough)
Use words to compare how each dough looks, smells and feels.
- Distribute the playdough. Who has more dough? How do you know?
- Use cubes or other objects to weigh a lump of playdough in the balance scale.
- Let's roll a long snake. Can you cut your long snake into short snakes?
Let's put the snakes in order from longest to shortest.
- Roll balls of playdough. Use the balls to measure the length of objects in the classroom. How long is the rolling pin? How long is the basket? How long is your hand?
- Experiment: Does warm dough work differently than cold dough?

Algebra/Patterning:

- Roll your dough into a long, flat shape. Use mini cookie cutters, dough stampers, textured rollers, fingers or objects to stamp a pattern across the dough.
- Use cookie cutters to make playdough shapes. Arrange the shapes to make a pattern.
- Choose two colors of playdough. Make a patterned playdough snake or caterpillar.
- Create a chant to repeat while you manipulate the playdough: Pound it. Pound it. Squish it. Squish it...

Data Analysis and Probability:

- Make a variety of doughs to play with. (i.e., sawdust dough, salt dough, oatmeal dough, Kool-aid dough, coffee dough, soap dough, pumpkin pie dough) Use words to describe how each dough looks, smells and feels.
- Sort the shapes that you cut with cookie cutters.
- Line up the shapes that you cut with cookie cutters to create a simple object graph.
Compare the number of shapes and/or colors in each group.