**Math Center #2  
Manipulatives as Thinking Tools - Grade 7**

**Materials:**

* coloured pencils & math notebook (or digital notebook & camera)
* GRADE 7: Pattern Blocks, Cuisinaire Rods, Colour Tiles

 

**Instructions:**

1. Write the date and the name of the manipulatives you are using today as the title (e.g. "Pattern Blocks", or "Cuisinaire Rods"). Underline the title.
2. Spend some time exploring your manipulatives. What do you notice about them? Sketch or take a photo of each manipulative and label it, describing colour, size, shape, side length, etc.
3. Show the fraction 1/2 in different ways, using different manipulatives. Now show 1/4, 2/3 and two other fractions of your choice.
4. Fractions can be thought of using a variety of models. One of the models is the "set" model, where fractions are part of a set. Another is the "area" model, where fractions are thought of as one part of a whole area, or region Finally there is the "linear" model, where you can think of part of a number line. **Which manipulative do you think best represents each model? Why?**
5. Tidy up the materials at your centre, thank your peers for their cooperation, and move to the next centre. (Or -- if time is up -- return to your table group.)

** Math Center #2 - GRADE 8  
 Manipulatives as Thinking Tools**

**Materials:**

* coloured pencils & math notebook (or digital notebook & camera)
* GRADE 8: Fraction Circles and Geoboards

**Instructions:**

**ACTIVITY A - Pizza!**

|  |  |
| --- | --- |
| 1. Use **circular fraction pieces** to   create a model of a pizza that   has been cut into pieces.   1. Draw the model. 2. Write an equation for the model 3. Show that the equation is true. |  |

2. Create different "pizzas", using the same procedure.

**ACTIVITY B - Cake!**

|  |  |
| --- | --- |
| 1. Create a **geoboard** model for   one whole cake that has   been cut into pieces.   1. Draw the model. 2. Write an equation for the model 3. Show that the equation is true. |  |

2. Create different "pizzas", using the same procedure.

**HINT:** Different models might have...

|  |  |
| --- | --- |
| * a small number of pieces * a large number of pieces | * The same size for all pieces * Some pieces the same size, and some pieces of different size |