Geometry Lesson

1.  NCTM Standard(s):

* Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.

|  |
| --- |
|  |
|  |

* + explore congruence and similarity
* Apply transformations and use symmetry to analyze mathematical situations
  + Apply transformations and use symmetry to analyze mathematical situations
* Use visualization, spatial reasoning, and geometric modeling to solve problems
  + build and draw geometric objects;
  + create and describe mental images of objects, patterns, and paths;

**2.  Launch:**

I received a letter from my good friend Shapey. He has asked for your help. Then we will read the note attached.

**3. Explore:**

Students will use either pattern blocks or the print out attached. They will design their very own Shapey.

**4. Share:**

The students will hold up their creations and share the different shapes they used.

**5.  Summarize:**

Shapey’s Dad will love your drawings! Your job tonight is to use the shapes on the handout to create a self-portrait of yourself. I can’t wait to see what they will look like! Don’t forget to add some colors.

Dear Mathematicians,

My name is Shapey, and I live on a planet for away in outer space called Zoop. I am sending you this special note because I heard that you earthlings are great problem solvers and you have recently become experts at learning about shapes!!! So here is my problem.

My dad’s birthday is coming soon. I would like to give him a picture of me as a birthday present. I cannot make the picture because I hurt my hand. Could you please help me by making the portrait? Here is some information to help you make my portrait.

I am made of 5 rectangles,

4 circles,

4 squares,

2 triangles,

2 rhombuses

1 pentagon.

My eyes are round.

My nose had four sides.

My mouth is a crescent shape.

One last thing I am symmetrical.

Good luck and thank you for all your help! I can’t wait to see my pictures. No worries if your pictures do not all look the same. When solving a problem there can often be many solutions to a problem.

Your friend from Zoop,

Shapey

Shapey

5 rectangles

4 circles

4 squares

2 triangles

2 rhombuses

1 pentagon

My eyes are round.

My nose had four sides.

My mouth us a crescent shape.

One last thing I am symmetrical.