

## Expectations Signatures due Friday.

Pease **keep** the previous pages, and **return** this signed page to Mrs. Mulligan by Friday 9/6.

I have read and understand the 6<sup>th</sup> Grade Math Concepts Expectations and Procedures.

Student Name \_\_\_\_\_

\_\_\_\_\_  
(Student signature) Date: \_\_\_\_\_

\_\_\_\_\_  
(Parent/Guardian signature) Date: \_\_\_\_\_

\_\_\_\_\_  
(Parent/Guardian preferred phone number)

\_\_\_\_\_  
(Parent/Guardian preferred email)

What?

Who?

How?

Why?

**Team Roles****Resource Manager:**

- Make sure that the team has tiles or resource pages and scissors.
- Call the teacher over for team questions.  
*"No one has an idea? Should I ask the teacher?"*

**Facilitator:**

- Start the team's work by reading each problem out loud.
- Keep everyone discussing each part together by asking questions such as,  
*"How can we tell how many toothpicks there are?"*  
*"How can we change the number of toothpicks without changing the number of tiles?"*

**Recorder/Reporter:**

- When your team is called on, share your team's ideas and reasons with the class.
- Help the team agree on an idea: *"Do we agree that this shape fits the clue?"*

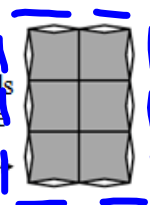
**Task Manager:**

- Make sure no one talks outside your team.
- Help keep your team on task and talking about math.  
*"OK, let's focus on the question here."*  
*"What is the next shape we need to make?"*
- Listen for statements and reasons.  
*"Can you explain how you see that?"*  
*"Tell us how you know that there are \_\_\_\_ toothpicks."*

**Please Don't Write on This Paper!**

**Write the answers in your Math Spiral (don't forget to number the questions ☺)**

**1-5. TOOTHPICKS AND TILES** Cruz, Sophia, and Savanna are using toothpicks and tiles to describe the attributes of this shape. Cruz made a pattern and told the girls the number of tiles he used. Then Sophia and Savanna each tried to be the first to see who could call out how many toothpicks, or units of length, were on the outside.



- a. Cruz made the tile pattern shown to the right, and said, "There are six tiles." Savanna quickly said, "There are ten toothpicks." Copy the tile pattern on your paper and show where Savanna counted the 10 toothpicks. Justify your answer with words, numbers, or pictures.

- b. Cruz made up new pattern, shown below, but he ran out of toothpicks. How would you describe this shape using toothpicks and tiles?



- c. Get a set of tiles from your teacher and work with your team to:
- Make a pattern so that there are four more toothpicks than tiles.
  - Draw your tile pattern on your paper
  - Label the number of toothpicks and tiles on your drawing.

Is there more than one answer?