Week of May 4, 2020
Patterns, Functions, and Algebra

** First, watch these two videos by click on the links. After you watch both videos, answer the questions below and send your answers to me. You can take a screen shot and send to my cell phone (717-881-1980) or you can email me your answers (pakem@pwcs.edu)

- Video 1
- Video 2

<u>Questions to answer</u>

1) Pablo Picasso is making one-color versions of all his paintings. He uses the colors in the following order and then starts over from the beginning: red, blue, pink, green and purple.

   What color is painting 27?

2) The following pattern starts with 4 and uses the rule to add 6 to the previous number.

<p align="center">4, 10, 16, 22, 28</p>

   Which of the following statements is true? (Choose 1 answer)

   a) The pattern includes only multiples of 4
   b) Every other number in the pattern is odd.
   c) Every number in the pattern is greater than the previous number.

3) Which rule describes the pattern shown? (Choose 1 answer)

<p align="center">1, 6, 36, 216</p>

   a) Add 6
   b) Add 3
   c) Multiply by 5
   d) Multiply by 6

4) The table below shows the number of minutes it takes to run laps.

Laps	Minutes
6	30
7	35
8	40
9	45
10	50

If the pattern continues, how many minutes will it take to run 13 laps?

a) 55 minutes
b) 60 minutes
c) 65 minutes
d) 70 minutes

After you send your answers to your teacher please scroll down to the next page and complete 2 different activities

Activity 1: Go to i-station and complete the 2 lessons and missions that have been assigned
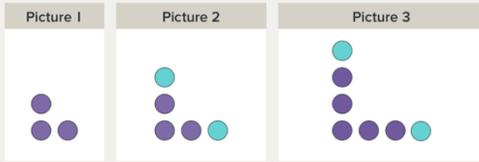
Activity 2: Complete a page in your math madness book

Activity 3: Create your own pattern and send to your teacher to see if they can figure out the rule

Activity 4: complete the worksheets listed below on the next page and send your answers to your teacher

Step In What can you tell about this growing pattern?

Picture 1	Picture 2	Picture 3

What do you think the fourth and fifth pictures will look like?

Peter makes this table to represent the pattern.

Picture Number	1	2	3	4	7	10	15
Number of Circles	3	5	7				

What relationship can you see between the picture number and the number of circles?

> The number of circles is one more than double the picture number.

Do you think the 15th picture will have an odd or even number of circles? How can you tell?

Complete the table.

Why is the number of circles always odd? Explain your thinking.

Step Up 1. a. Read the rule. Then complete the table.

Number of circles = Picture number × 2

Picture Number	6	4	5	20	2	15	
Number of Circles		8		40	4		26

b. Do you think it is possible to record an odd number of circles? Explain your thinking.

2. a. Read the rule. Then complete the table.

Number of squares = Picture number + 3

Picture Number		5	1		20	7	15
Number of Squares	7		4	40	23		18

b. Do you think it is possible to record an odd picture number and an odd number of squares? Explain your thinking.

Step Ahead Look for a pattern rule. Then complete the table.

Picture Number	3	5	2	7		15	18
Number of Triangles	5	9	3		19		