7-2

Collecting Data:

- 1. Set up Notes:
 - a. Title: Distance, Rate, and Time (CC2: 7.1.1)
 - b. Essential Question: How can you create an equation when given distance, rate, or time?
- 2. Tape together several pieces of paper. Draw a starting line on the paper.
- 3. Lay a meter stick next to the paper.
- 4. Use one cell phone to record the toy, the meter stick, and other phone or timer.
- 5. Wind up the toy, and start it slightly behind the line.
- 6. When the toy passes the line, hit the "start" on your timer (or phone).

<u>Graph</u>

1. Use your recording to **create a graph**. The x axis should me time (in seconds) and the y-axis should be cm.

7-3

Find the unit rate of your toy, that is, how many centimeters does your toy travel per second. Explain how you figured it out.

7-4

Create an equation based on your graph. Use the rate (r), distance (d), and time (t). (Hint: Time is your x in this scenario and distance is your y. How would you create an equation just based on the graph ?

7-7

Use your equation, a table, or the graph to answer the following questions:

- a. What distance would your toy travel in 9 seconds?
- b. How far would your toy travel in 25 seconds?
- c. How many seconds would it take your toy to travel 300 cm?