

## The Crow and the Pitcher

NAME \_\_\_\_\_

In this activity, you will simulate the story of “The Crow and the Pitcher” using a graduated cylinder and marbles.

Fill your graduated cylinder with water, up to 100 mm height. You will be adding marbles until the water reaches a level of at least 120 mm—the level at which the crow can reach the water.

1. Before you begin the activity, make a prediction:

I believe that I will need to add 10 marbles in order to raise the water level to 120 mm.

2. Add the marbles one at a time and record the effect that each additional marble has on the water level. Complete the table.

NUMBER OF MARBLES ( $x$ )	RAISE OF WATER LEVEL (MM) ( $y$ )
0	100
1	101,5
2	103
3	104,5
4	106
5	107,5
6	109

3. What is the raise of water level with no marbles added? Where will this point be located on a graph made from the data in the table?

$$y = ax + b$$

4. Find the rate of change. What values are changing in the experiment? Which value change is dependent and which is independent?

