

## The Crow and the Pitcher

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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 \_\_\_\_\_ 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<br>(x) | RAISE OF WATER LEVEL (MM)<br>(y) |
|--------------------------|----------------------------------|
| 0                        | 100                              |
| 1                        | 101                              |
| 2                        | 102                              |
| 3                        | 103                              |
| 4                        | 104                              |
| 5                        |                                  |
| 6                        |                                  |

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?

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