

## SWELLING CREATURE WORKSHEET

You have been given a special water-absorbing polymer “creature” to take home with you. Follow the directions provided below. The objective of this experiment is to determine how much the “creature” grows when placed in water.

### Directions:

1. Measure your creature’s size in inches. Estimate to the nearest  $\frac{1}{4}$  inch. Record it here and on your graph:  
My creature is a \_\_\_\_\_. Original size = \_\_\_\_\_ inches.
2. Place the creature in a bowl of water. Choose one of the following  
Cold tap water \_\_\_\_\_ Warm tap water \_\_\_\_\_
3. Wait 12 hours. Remove the creature from the water and measure it. Record the results on the line graph. Return the creature to the same temperature of water as in step 2.
4. Every 12 hours, measure and record the results on your graph. You must record a total of 6 measurements.
5. Calculate how many times larger in size the creature was at the end of the experiment using the following formula (you may use a calculator and round to the nearest tenth):

$$\frac{\textit{Final size}}{\textit{Original size}} = \text{_____ times larger}$$

6. Let the creature dry out. Keep it out of direct sunlight. Measure its size after it is completely dry.

$$\textit{Dry size} = \text{_____ inches}$$

7. Did it return to its original size? Why or why not? \_\_\_\_\_
8. Complete the chart below.

## Growth of a Water-Absorbing Creature

