

My Desert Sponge

Name: _____ Period: _____

Purpose:

The small sponge you have been given represents your own desert organisms. Organisms need water to sustain life. In the desert animals have adapted to conserve water. You must conserve the water in your sponge. Over a 24 hr period you must take care of your creature in a manner that will best achieve this goal using only natural materials. Your creature must be out in the open for at least 4 hrs during the 24 hr period to feed.

Materials:

sponge balance water

Independent variable:

Dependent variable:

Hypothesis: (If and then)

Experimental Design: (pictures and your plans and modifications)

Procedures:

1. Obtain a small sponge from Mrs. Davidson
2. Weigh your sponge on a triple-beam balance
3. Record mass in grams
4. Make modifications to your creature
5. Record observations every 2 hrs
6. Record any changes you make to your creature
7. Mass your sponge at the end of 24 hrs and record

Data and Observations:

Quantitative Data

Beginning mass: _____ Ending mass: _____

Qualitative Data

| Time (hrs) | Observations |
|--------------------------------------|---------------------|
| Initial | |
| 2 | |
| 4 | |
| 6 | |
| 8 | |
| 10 | |
| Before you go to bed at night | |
| When you wake up | |
| Final Observations in class | |

Analysis:

1. List 3 adaptations you made to your sponge and explain your reasoning behind each one.

2. Explain the success or failure of each of your adaptations.

3. Explain 3 reasons why water is important to organisms?

