Keeping Your Cool…

In this experiment, we will examine how different materials absorb heat at different rates. After you complete the experiment, record your data, and make your graph, you will look through the Power Point presentation to learn how your findings relate to the animal world!

Materials

- 3 containers of equal size and made of the same material (preferably your containers will be identical)
- 3 thermometers
- sand
- water
- measuring cup
- stopwatch (or watch with a second hand)
- 3 markers or crayons (3 different colors)

Procedure

1. Gather all your materials that you will need
2. Use a measuring cup and fill one container with sand (your container should be about full). Label this container "Container 1"
3. Record how much sand you put in your first container (For instance: ¾ cup)
4. Fill your second container with water. Use the exact same amount of water as you used of sand. (For instance, if you filled your first container with ¾ cup of sand, fill your second container with ¾ cup of water.) Label this container "Container 2"
5. Leave your third container empty. Label this container "Container 3"
6. Place all 3 containers on your kitchen counter for 1 hour
7. After 1 hour, take all 3 of your containers outside and find a nice sunny spot.
8. Place all of your containers in a row, approximately 6 inches away from each other, directly in the sun. Be sure that all of your containers are receiving the same amount of light. (If one of your containers is partly shaded and the other 2 are in full sun, be sure to move the containers until they are all full sun.)
9. Look at your 3 thermometers and make sure they are all reading the same temperature. (If they aren't, you can run them under cold tap water until they all have the same reading.)
10. Place one thermometer in each container. The end of the thermometer should touch the bottom of the container
11. Take the initial temperature reading as soon as you put the thermometers in the containers
12. Record the temperature in Fahrenheit in the table
13. Use the stopwatch to wait 2 minutes.
14. Read the thermometers in the containers and record the temperatures on the table
15. Use the stopwatch to wait 4 minutes.
16. Read the thermometers in the containers and record the temperatures on the table.
17. Continue this process until you have filled in the entire table.