Fall 2013

Science in a Bag - Student Page

The Mighty Animal Cell

Grade Level

5th

Standards

GLE 0507.1.1 Distinguish between the basic structures and functions of plant and animal cells.

SPI 0507.1.1 Identify the major parts of plant and animal cells such as; the nucleus, cell membrane, cell wall, and cytoplasm.

Task Objective

The students doing this activity will be able to locate the different parts of an animal cell and know what their function is.

Materials Needed

Play-Doh (one can)

Aluminum foli (cut into a circle)

Small ball

Beans

Small round candies

Small labels that list the parts of the cell

Procedures

1. Take all the contents out of the bag and read the cheat sheet page titled “The Mighty Animal Cell”.
2. Use both pictures on that page to make your own animal cell.
3. The aluminum foil is used for the cell membrane, lay it down first.
4. The Play-Doh is used for the cytoplasm, take the Play-Doh out of the can and flatten it into a circle and place on top of the aluminum foil.
5. The ball is used for the nucleus; place it in the middle of the Play-Doh.
6. The beans are used for the mitochondria, place them however you like in the Play-Doh around the ball.
7. The candies are used for the vacuoles, place them however you like in the Play-Doh around the ball.
8. Your animal cell is now finished! Test what you have learned and place the labels on or beside the correct parts of your cell.
9. In your Learning Log write down something new you learned while doing this activity. Also answer the assessment questions below in your Learning Log.

Assessment

1. Where is the nucleus located?
2. Does an animal cell have a cell wall?
3. Does an animal cell have vacuoles?

Clean-up

1. Take apart your animal cell.
2. Throw away the small candies used for the vacuoles, because they become sticky after handling.
3. Put the beans back in their small ziplock bag, then put back in the big bag.
4. Roll the Play-Doh back up and put back into the can, then into the big bag.
5. The rest of the materials including the papers, place back in the big bag.