

OH WOW!

Chocolate Chip Fossil Dig

Standards :

- 4 . **ESS .3** : The surface of Earth changes due to erosion and deposition.
- 4 . **ESS .2** : The surface of Earth changes due to weathering.

Objectives :

The student will be able to demonstrate the process of excavating fossils given chocolate chip cookies and toothpicks.

Background :

This activity demonstrates one of the many ways that humans can change the environment, excavating. The chocolate chip cookies represent a fossil site somewhere on earth; the chocolate chips are fossils. The student must excavate and remove fossils from the site without breaking, damaging, or doing harm to the fossil site.

Academic Language :

Weathering: The process where rocks are dissolved, worn away or broken down into smaller pieces (sediment).

Excavate: To uncover by digging away and removing the earth that covers it.

Materials :

- Chocolate chip cookies
- Toothpicks
- Napkins

Procedure :

1. Lay a napkin on the table top
2. Place a chocolate chip cookie on the napkin.
 - a. Once the cookie is placed on the napkin, it can not be moved or lifted
3. Use 2 toothpicks to begin digging or removing the chocolate chips from the cookie
 - a. Be sure not to move, lift, or break the cookie



4. After removing the chocolate chips, eat and enjoy!

Extension Activities :

1. Use different types of cookies- original, soft ,or chewy. What is the easiest site to work with? Why?
2. Look for different types of fossils- M&M cookies, chocolate chip. What were the easiest fossils to remove? Why?

Talking Points :

- The Earth and environment are changed by natural processes or forces, animals, and humans.

Discussion Questions :

1. Was it hard to retrieve the fossils? Why? What kept happening to the cookie?
2. Why does this activity relate to weathering and erosion?
3. Was the original or chewy cookie easier to work with? Which was more difficult? Why?
4. What other tools would have helped the excavating process?
5. What are some other ways humans change the environment?

Additional Resources :

<https://www.kiwico.com/diy/Arts-and-Crafts-Ideas/1/project/Chocolate-Chip-Cookie-plus-Toothpick-equals-Fossil-Dig!/346>

<https://www.teacherspayteachers.com/Browse/Search:chocolate%20chip%20cookie%20fossil%20dig>

