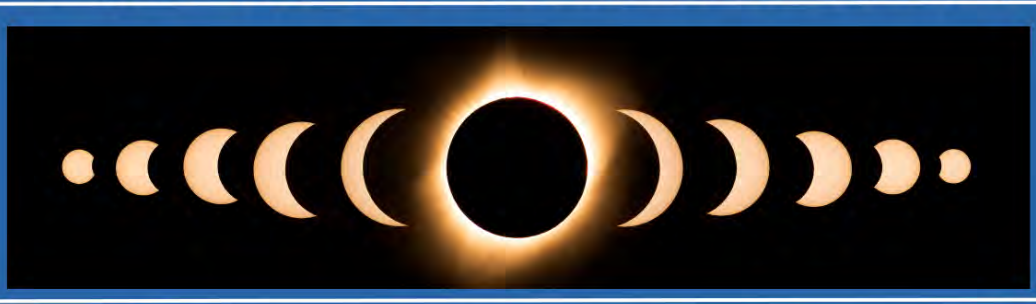
CRÈME COOKIE ECLIPSE TIMELINE



TEKS - Science and Engineering Practices

1 C - use appropriate safety equipment and practices during laboratory, classroom, and field investigations as outlined in Texas Education Agency-approved safety standards;

1 G - develop and use models to represent phenomena, systems, processes, or solutions to engineering problems;

Learning Objectives:

1. Students will practice safe observing techniques of the solar eclipses.
2. Students will make a model to illustrate and describe the positions of the moon and Sun during a solar eclipse.

Materials:

- bag of crème-filled cookies (crème white, yellow or tan; cookie dark)
- Card Stock or Heavy Paper

Activity:

1. Have each student, one at at time, observe the sun in the partial (or annular phase) using safe techniques. https://space.rice.edu/eclipse/safe_eclipse_observing.html
2. While observing, students should note the time and draw a picture on the cardstock of what they are observing. (They should have at least 6 different images with their respective times.)
3. After observing students will take off the "lid" of a cookie and place it back on the crème half, to show the progression of the eclipse phases according to their observations. Making sure to note the time. (For the annular, students may need to eat around the cookie part to correctly model this phase.)
4. If this is completed as a group, you may want to include each student's signature. Or each student can do their own timeline if you have enough supplies.

reiff@rice.edu https://space.rice.edu/eclipse/

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TEACHER'S GUIDE

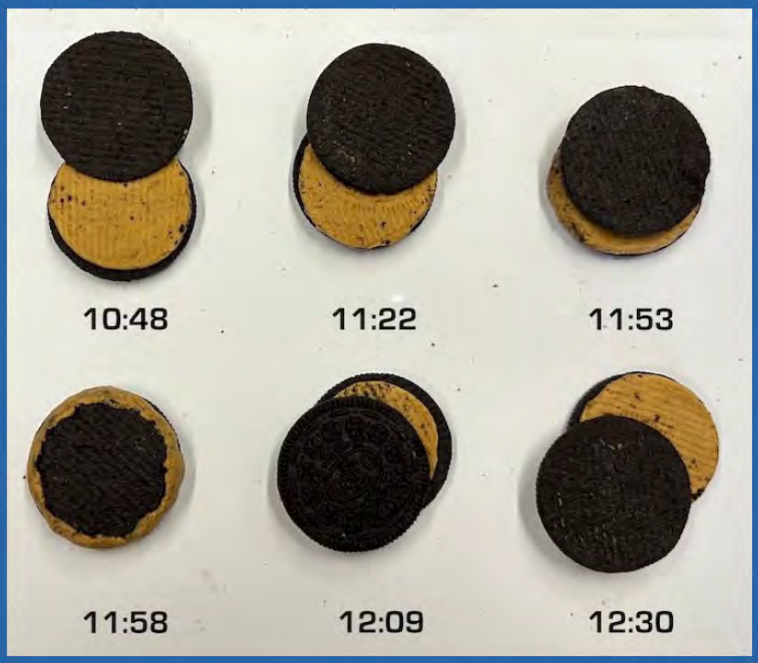
Follow up Questions:

1: What do you think is the most important factor to consider when modelling a solar eclipse?

2: How could understanding the mechanics of a solar eclipse help us better predict such events in the future?

3: What new things have you learned about solar eclipses that were not covered in this lesson?

Sample from annular in Corpus Christi, TX



Sample from totality in Kerrville, TX

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