

Overview:

Students discuss stars in the sky.

Objectives:

The student will:

- observe items with their eyes and a hand lens; and
- create a night sky picture.

Targeted Alaska Grade Level Expectations:**Science**

- [3] SD4.1 The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by recognizing that objects appear smaller the farther away they are.
- [3] SD4.3 The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by recognizing and using appropriate instruments of magnification (e.g., binoculars and telescopes).
- [3] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.

Materials:

- *Twinkle, Twinkle Little Star* as retold and illustrated by Iza Trapani
- Collection of small items such as toy car, paper clip, block, crayon, rubber band, thumb tack, eraser, spiral pasta, wheel shaped pasta, etc (enough for students to choose 4 items each)
- Hand lens (one per student)
- 8.5x11 black construction paper (one per student)
- Silver or white glitter with a shaker top (enough for students sprinkle on black paper)
- Glue sticks (one per student)
- STUDENT WORKSHEET: "This is Close!"

Activity Procedure:

1. Sing the song Twinkle, Twinkle Little Star with the class. Most students will only know the first verse. Ask students to tell you about their observation of stars in the sky.
2. Read the book Twinkle, Twinkle Little Star and discuss the other verses from the song they may not know. Sing the song with all the verse together as a class.
3. Discuss why stars look like they do in the sky. Lead students to discuss that stars look small because they are so far away. Remind them that the sun is the nearest star to Earth. Ask students to name any tools we can use to see the stars in the night sky more clearly. List responses on the board.
4. Tell students that they will be observing some items using their eyes and a hand lens. Give students the STUDENT WORKSHEET: "This is Close!" Ask them to investigate the items and complete the worksheet.
5. After the worksheet is completed bring students back together to share their observations. Ask: How did the items look different? How did they look the same? What other classroom items could we observe? Let students continue to investigate. The hand lens and items should be left at a science center to continue exploring at other times.
6. Give students the black paper and glue sticks. Ask them to spread the glue and sprinkle the glitter carefully on the black paper to create a picture of the night sky full of stars.

Extension Ideas:

1. Invite a person who observes the night sky with a telescope to come and share it and their observations.
2. Start an astronomy club.
3. Visit the one of the following websites:
www2.jpl.nasa.gov/ambassador
<http://nightsky.jpl.nasa.gov/planner.cfm>
<http://stardate.org/>
<http://sunearthday.nasa.gov>
www.telescopesineducation.com
<http://mo-www.harvard.edu/MicroObservatory>
4. Read the following books aloud: *Looking Down* by Steve Jenkins, *ReZoom* by Banyou, *The Sun is My Favorite Star* by Frank Asch, *All About Magnifying Glasses* by Marvin Berger, *The Big Dipper* by Franklyn Branley, *The Sun is Our Nearest Star* by Franklyn Branley, *The Magic School Bus Sees Stars: A Book About Stars* by Nancy White.

NAME: _____
THIS IS CLOSE!

Directions: Choose three items to observe. Draw what you see in the boxes below.

Item Name	With Your Eyes	With the Hand Lens