

Astronomer: Observing Constellations

NGSS Standard: 1-ESS1-1



Adventure Description:

In this adventure, you will think like an astronomer and observe constellations of stars.



Activity

Step 1: Background on Astronomers (5 minutes)

- Show [Video: Patterns in the Sky](#).
- Explain that astronomers study the sky, stars, and space. One way they study stars is by looking at constellations. Constellations are groups of stars that make an imaginary shape in the night sky. They are usually named after characters, people, animals, or objects.
- Show [Handout: Examples of Constellations](#). Discuss the list of constellations as a class. Ask students if they would have chosen different names for any constellations and why.

Step 2: Creating a Constellation (10-15 minutes)

- Explain to students that they will now create their own star constellations. Then, they will create a giant sky with every constellation the class created!
- Show [Handout: How to Create a Constellation](#). As a class, read through the steps. Explain to students that they will be creating their own constellations using toothpicks and mini marshmallows.
- Explain to students that they can create a constellation from the examples they looked at, or they can make up a new constellation (meaning they will choose what it looks like and design it).
- Provide students with marshmallows and toothpicks. You can also use play-doh if you don't have marshmallows.
- Finally, students will write a name for their constellation on [Handout: Nameplate](#). (Tip: Cut out a nameplate for each student ahead of time).

Please contact Allison Bischoff, Director of Customer Service, at allison@rozzylearningcompany.com or 314-272-2560 with questions.

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Step 4: Building and Observing a Class Night Sky (15 minutes)

- Explain to students that they will now put all of the constellations in the sky. Then, they will pick a constellation to look at.
- Lay out a large piece of black poster board or pieces of black paper.
- Have students take turns carrying their constellation and nameplate over to the black paper and placing it down.
- Next, explain to students that they will choose a constellation from the sky to learn more about. Pass out [Handout: Observation Sheets](#).
- Teacher Note: There is a drawing sheet and a writing sheet. You can give students both or just one.

Materials List

Provided online:

- Video: Patterns in the Sky
- Handout: Examples of Constellations
- Handout: How to Create a Constellation
- Handout: Nameplate
- Handout: Observation Sheet

Not provided:

- Toothpicks and mini marshmallows
- Large piece of black poster board or black construction paper

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