



Star Unit

Learning Objectives

Students will demonstrate their understanding of constellation patterns and earth movement by writing and illustrating a legend about a specific constellation.

Lesson

Introduction (10 minutes)

Day 1

- Start a group discussion by prompting students to tell you what they see in the sky at night. Great discussion questions include: What do you see in the sky at night? What do you notice about the stars? Do you think people on the other side of the globe see the same stars and constellations as we do? Why or why not?

Explicit Instruction/Teacher Modeling (50 minutes)

Day 1 (20 minutes)

- Begin with a picture walk with the book *Discovering the Stars* by Laurence Santrey, or a similar book about specific star constellations.
- Have the students predict what they think they will learn about in the book based on the pictures. Next, read the book to the class.
- Make a list with the students about what they learned from the book.

Day 2 (30 minutes)

- Have students watch the video [I Want to Know: Stars and Constellations](#) by Lucerne Media.
- Next, play the video [Do the Stars Really Move?](#) by the California Institute of Technology for the class.
- Tell your students that they will each choose one constellation to study. They will learn if their constellation is visible from earth during summer, spring, autumn, and winter.
- Finally, have your students listen to the song [Constellation Jig](#) by Space Songs.

Guided Practice/Interactive Modeling (60 minutes)

Day 3 (30 minutes)

- Remind your students that they're going to pick one constellation for a research project.



- Inform them that a part of the project is being able to tell if their constellations are visible all the time or only during certain parts of the year.
- Show the students information about constellations during each season, here: [Spring](#), [Summer](#), [Autumn and Winter](#).
- Discuss what you are seeing on the website as you explore as a class.
- Define the Key Terms for your class, as follows: **star**: an object that shines due to energy being released from nuclear reactions; **constellation**: a group of visible stars that form a pattern when viewed from Earth; **northern hemisphere**: area above the equator; **southern hemisphere**: area below the equator; **axis**: an imaginary line that runs through the center of Earth; **rotate**: to turn on an axis; **revolve**: when an object moves in a circle around another object

Day 4 (30 minutes)

- Remind the students that they need to pick one constellation.
- Pick a constellation, and model for your class how to do research on it. Great resources include: Constellation attachment, [Greek Mythology](#) for each constellation, by the Tulare County of Education and [Pictures of the 12 Zodiac Constellations](#).
- Walk through how to use each of these resources.

Independent Working Time (150 minutes)

Day 5 (30 minutes) Have students pick the constellation they'd like to study. Explain to the students that you want them to:

- Create a 7-10 sentence summary of the Greek mythology behind each constellation
- Inform the reader when and where the constellation can be seen
- Draw or create a model of the constellation
- Model how to use the note page (see attachment).

Day 6 (30 minutes)

- Visit the library to get additional resource books for the students to utilize in their research.

Day 7 (30 minutes)

- Tell students to work on their 7-10 sentence summary of the Greek mythology behind their constellations.

Day 8 (30 minutes)

- Have your class work on their explanations on when and where the constellation is visible.

Day 9 (30 minutes)



- Tell your students to create a drawing or model of the constellation.

Extend

Differentiation

- **Enrichment:** The teacher can encourage the students above grade level to create a multiple paragraph summary that compares and contrasts the Greek mythology of the constellation to the Roman mythology.
- **Support:** For below level students, the teacher should pick a constellation that has an easily understood Greek myth with ample resources in all reading levels ex. Ursa Major or Ursa Minor. The teacher can cut down on the length of the summary, too.

Review

Assessment (5 minutes)

Use the following rubric to assess each student's work, dependent on their development level:

- Above grade level: Student includes an accurate multi-paragraph summary, in his/her own words, of the Greek (and possibly Roman) mythology behind his/her constellation; explains when and where the constellation can be seen on Earth; has an accurate model or drawing of the constellation.
- At grade level: Student includes a 7-10 sentence summary of the Greek mythology behind his/her constellation; informs the reader when and where the constellation can be seen from Earth; draws or creates an accurate model of the constellation.
- Below grade level: Student includes some sort of summary of the Greek mythology behind his/her constellation but it may be less than 7 sentences or incorrect; student attempts to explain where and when the constellation can be seen from Earth but is missing information; drawing or model is not completely accurate.
- Far below grade level: Student is missing one of the three requirements and/or the summary, explanation or drawing/model is completely inaccurate.

Review and Closing (5 minutes)

- The research notes, final paper, and drawing/model completed by students will show whether or not they understand that the constellations stay put while the earth rotates.
- After the students are done filling out the note page, they should edit and create a final copy. All the final copies will be used to create a star book.

Source: <https://www.education.com/lesson-plan/star-unit/>