

Universe Lesson Plan Eight

Constellations Seen in the Different Seasons

Standard IV: Students will understand the scale size, distance between objects, movements, and apparent motion (due to Earth's rotation) of objects in the universe and how cultures have understood, related to and used these objects in the night sky.

Objective 2: Describe the appearance and apparent motion of groups of stars in the night sky relative to Earth how various culture have understood them.

Indicator b: Relate the seasonal change in the appearance of the night sky to Earth's position.

Directions

1. Read "Which Zodiac Constellation is Seen Each Month in the Western Sky at 10:00 p.m.?"
2. Make sure they understand that when the constellation is in the sun that is what everything else is referenced from.
3. Have them look at the chart of the reading with the circular chart of the Zodiac Signs so they can see how the process works of how we see them each night and why one disappears and another appears as each month rolls around.
4. Have them look at the chart of the "Constellations We See from Sunset to Sunrise in the Different Seasons". Have them follow the signs of the Zodiac Constellations on the circular chart with the words of the constellations seen at the different seasons.
5. To help them understand how we can see nine of the constellations each night, have them take out their Star Wheels.
6. Have them take another color and color all the Zodiac Constellations the same color (but not the same color of the circumpolar constellations).
7. Have them turn the constellations counterclockwise to see how the Zodiac Constellations disappear behind the horizon and appear from behind the horizon.
8. Have them put the Star Wheel on each season. Notice in the evening what the first constellation is that shows. Have them find the rest that are seen.
9. Have them turn the wheel to see how as one disappears in the west, another one will appear in the east.
10. If you want, look at the at the Spring, Summer, Fall, and Winter sky charts to see how they are different for each season in the late evening.
11. If you want, show them the "Constellations that are Seen From Sunset to Sunrise in Each Zodiac Constellation" each month. Talk about them.