

Constellation Circle

If you were to go outside tonight, which constellations would you see? Do you think you would see those same constellations 6 or so months from now? No, you wouldn't. Do you know why? As the Earth orbits the Sun, we see different parts of the sky. The constellations you see in January will not be the constellations you see in June.

In this activity, you and your child will discover which constellations can be seen in the Northern Hemisphere during which months.

What You Need:

- ❖ Print-outs of the 13 constellations (make a link) (or 13 bright poster boards)
- ❖ Print-outs of months
- ❖ A large open space
- ❖ Tape
- ❖ Glue, glitter, pom-poms and other small craft items (only needed if you're using the poster boards)
- ❖ Image of the sun

What to Do:

- ❖ If using the poster boards, create each constellation on a different poster board using the glue and craft items.
 - Tape poster boards or print-outs to surrounding walls, in order counterclockwise: Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpius, Ophiuchus, Sagittarius, Capricornus, Aquarius, Pisces, Aries
- ❖ Use tape to make a very large circle on the floor in the middle of the room
- ❖ Tape the Sun image to the floor in the center of the circle.
- ❖ Have your child orbit the Sun and look at the constellations. Let them know that they are moving around the Sun as the Earth does during the year.
- ❖ Ask your child to stand and look away from the Sun. Which constellation do they see? If your child turns to face the Sun, do they still see that constellation? (No)
- ❖ Ask your child to look towards the Sun; which constellation do they see? If they are looking at the Sun, what time of day is it? (Daytime). Could someone really see that constellation that's in the direction of the Sun? (No, the Sun's in the way—that constellation is only up during the day)
- ❖ Ask your child to walk some of the distance around the Sun, using the circle. Now invite them to turn to look at that same constellation as before. Is it still blocked by the Sun? (No). So would someone be able to see it now in the night sky? (Yes).

Adapted from <http://mcdonaldobservatory.org/astroday09/ModelTheNightSky.pdf>

