

# STEAM STORY TIME: ASTRONOMY

## Activity 1: Constellations

### Supplies:

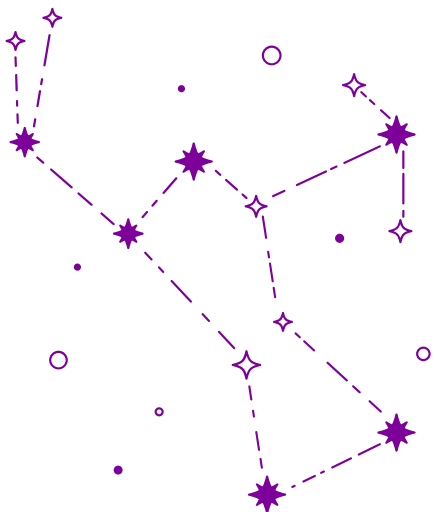
- Dark blue or black paper
- Star stickers

### Prompt:

For thousands of years people have looked into the sky and connected stars to make pictures. These pictures are called constellations. Though they are not really connected in the sky. What can you see when you look into the night sky?

### Directions:

1. Pick out two constellations. Try to recreate each constellation with your star stickers on dark paper.
2. Make up a new constellation! Design the constellation with your star stickers on dark paper. What is your constellation's name? Tell a grownup all about your constellation. Make up a story to go with it!



## Activity 2: Moon phases

### Supplies:

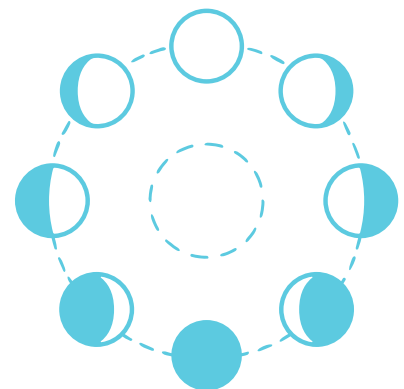
- Moon Phases Sheet
- Banana, or playdoh, or Oreos
- Child-safe knife

### Prompt:

Every night the moon seems to change a little bit. Though the Moon does not actually change, what you see changing is the amount of light the sun shines onto the Moon. This activity will help you visualize the differences you see with the light and shadows on the Moon.

### Directions:

1. If you are using a banana, cut the banana into slices. If you are using Oreos, twist the cookies apart, putting the cookies without cream aside.
2. Have your child take a look at each phase. The lighter gray is the part of the moon the sun is reflecting that we are able to see.
3. For each phase cut the banana slice to match the lighter gray of the moon phase (or shape the playdoh, or cut the cream on the Oreo).



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## Activity 3: the earth rotates!

### Supplies:

- Pictures of Sun, Earth, Moon
- Scissors

### Prompt:

Did you know that Earth rotates? So does the Sun and Moon. Rotate means to turn around. Our Earth day is equal to one rotation. The Earth also orbits around the sun; It takes Earth one year to orbit around the sun. The moon orbits around the Earth. That's a lot of rotating and orbiting!

### Game Instructions:

1. Have one person hold the Sun. Have another person hold the Earth.
2. Each person should rotate (turn around) where they stand. Don't go too fast! Stop after you have rotated a few times.
3. Now it's time for Earth to orbit around the sun. After one orbit , try having both the Sun and Earth rotate, while the Earth also orbits around the sun.
4. If you have a third person, you can have them hold the Moon. If not, decide who will hold the Moon and who will hold the Earth.
5. Have everyone rotate where they stand. Stop after a few rotations.
6. Now the Moon should orbit around the Earth. After one orbit , stop.
7. Let's see if the Moon and Earth can rotate while the Moon orbits around the Earth.
8. If you have three people (and the space!), try to have the Moon orbit around the Earth, while the Earth orbits around the Sun, while all three rotate on their axis. It's hard!

