

ASTRONOMY AND MYTHOLOGY

This is our Astronomy and Mythology Education kit. This kit mixes science and history to create a unique educational experience. The activities and items in this kit will focus on basic Astronomy (the science and study of the stars, planets, and galaxies), primarily concentrating on the constellations (a group of visible stars that create a pattern or outline) in our solar system. Additionally, this kit will also examine ancient Mythology (from the Greek mythos for story-of-the-people, and logos for word or speech, so the spoken story of a people) is the study and interpretation of often sacred tales or fables of a culture known as myths or the collection of such stories which deal with various aspects of the human condition. You might be wondering how two subjects as different as astronomy and mythology are related, but you'd be surprised to learn how related those two subjects really are! This kit will help explain the long and important relationship between astronomy and mythology by exploring the constellations and the myths that inspired them! We hope this kit inspires you and your family to go out and look at the night sky!

MYTHOLOGY: TIMELESS TALES OF GODS AND HEROES

This renowned book was published in 1942 by American educator and author, Edith Hamilton, and is still used as source material for the study of mythology today. The pages of this book are filled with classic tales and myths from several countries and cultures! You will learn about the creation of the Greek Gods, the Trojan war, the Norse trickster God Loki, and much more. After you read the tales in this book, see if you can go out and find some of the constellation named after famous mythological heroes!

ASTRONOMY AND MYTHOLOGY BOOKLET

This booklet was created by the Education Division of The Museum of Texas Tech University specifically for this kit. This brief booklet will explore and explain the relationship between astronomy and mythology. This booklet will cover the history and principles of astronomy, basic astronomy definition, and fun celestial facts! Additionally, this book will discuss the history of mythology, some definitions, the myth of Peruses and Andromeda, as well as exploring the relationship between mythology and astronomy. We hope this booklet will inspire you to do your own research on the cosmos and the myths that inspired them!

CONSTELLATION KEY CHAIN

Seeing the constellations in the daytime is easy with these constellation key chains!

Material:

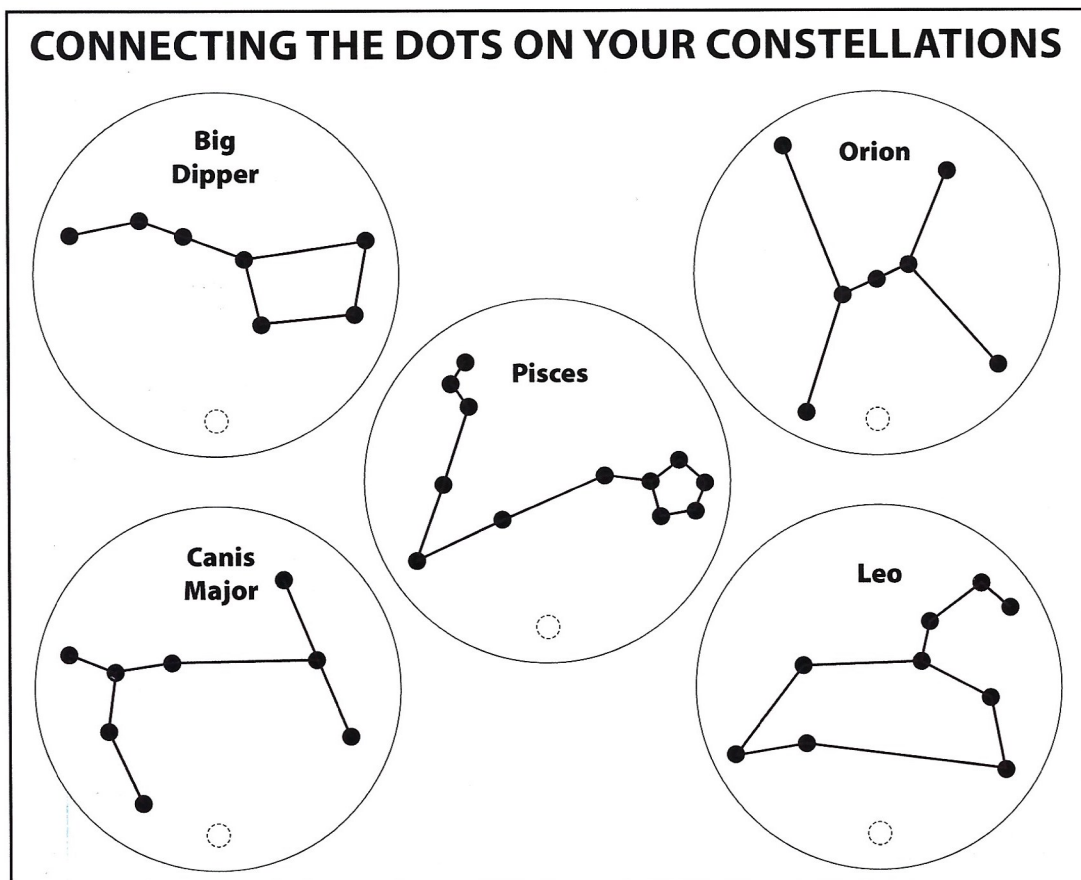
- Constellation Key chain (provided)
- Crayons (provided)
- Gems (provided)
- Stickers (provided)
- Pen or pencil (not provided)
- Any other material you would like to use to decorate your key chain

Directions:

1. Remove all the pre-pressed dots from each constellation medallion. To avoid confusion, work with one medallion at a time.
2. Using the chart provided below, match the medallion to the correct constellation, and label the medallion.
3. Repeat for the remain 5 medallions.
6. Once you have matched and labeled all the medallions, use the material provided to decorate your constellation key chain!

How to use your key chain:

All you need is a flashlight (if you are inside) or direct sunlight (if you are outside) and a flat surface. Hold medallion about a foot away from your flat surface and either shine the flashlight at it, or let the sunlight hit it, and you'll see the "stars" of the constellation projected on the surface. Repeat this with all the remaining medallions. Then, go out at night and see if you can match the stars in the night sky to your medallions!



POCKET SOLAR SYSTEM

Materials Needed:

- Receipt paper (provided)
- Star stickers (provided)
- Pen or pencil (no provided)

Directions:

1. Cut a strip of tape that is the length of the height of your body, that's about fingertip to fingertip.
2. Label one end "Sun" and the other end "Pluto/Kuiper Belt"
3. Next, fold the tape in half, crease it, open it up again and place a mark or sticker at the half-way point. Label this line "Uranus"
4. Refold the receipt tape in half, then half again so you have quarters. Then unfold it. The fold between Uranus and Pluto marks Neptune, so add a mark/sticker and label it "Neptune"
5. Add a mark/sticker on the fold halfway between the Sun and Uranus and label this "Saturn"
6. Place the Sun end of the tape at Saturn's orbit and crease the tape at the fold. Label that fold "Jupiter".
7. Fold the Sun out to meet Jupiter's orbit. The structure before Jupiter is the Asteroid Belt. Label that.
8. Fold the Sun to the Asteroid Belt mark and crease it. Label this "Mars".
9. Fold the Sun up to meet the orbit of Mars. Leave it folded and fold that section in half again. Unfold the tape and you should have three creases. Mark Earth on the crease nearest Mars, then Venus, then Mercury closest to the Sun.
10. Stretch out your model and take a good look at what you've made. Now, just roll it up and put it in your pocket!

Fold Sun to Asteroid Belt, ("A.B.") mark "Mars" on fold.



Fold Sun to Mars and leave it folded.

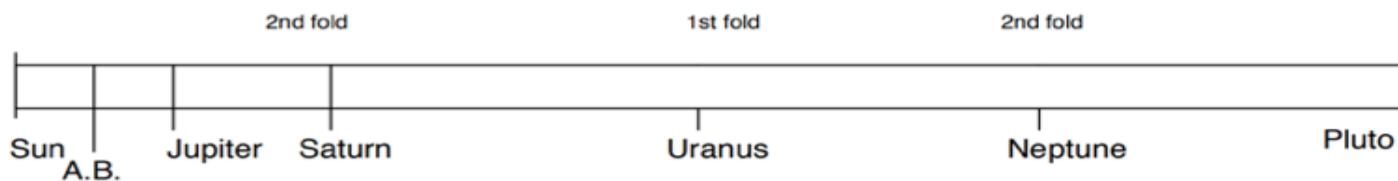


Then fold that section in half again.

Unfold it. You should have 3 marks for the three planets closest to the Sun



Schematic of the Pocket Solar System:



Pocket Solar System			
The order of the worlds of the Solar System going out from the Sun and their average distances are:			
Object	Avg Distance in kilometers	Avg Distance in miles	Avg Distance in AU*
Mercury	58 million	36 million	0.4
Venus	108 million	67 million	0.7
Earth	150 million	93 million	1
Mars	228 million	142 million	1.5
Ceres ** (representing the Asteroid Belt)	414 million	257 million	2.6
Jupiter	778 million	484 million	5.2
Saturn	1,427 million	887 million	9.5
Uranus	2,870 million	1,784 million	19
Neptune	4,498 million	2,795 million	30
Pluto ** (representing the Kuiper Belt)	5,906 million	3,670 million	40 (range is 30 – 50 AUs)
*AU stands for “astronomical unit” and is defined as the average distance between the Sun and the Earth (about 93 million miles or 150 million kilometers).			
**The International Astronomical Union (IAU), the organization in charge of naming celestial objects, classified these objects as “dwarf planets” in 2006.			