



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at www.projectexploration.org/stemathome.

In this activity, you will:

explore the sun and other planets in our solar system . You will build a model of the solar system, demonstrating the various sizes of each planet and the distance between them. You will learn the placement of the planets in the correct order, from planets closest to the sun to the planets further away from the sun.



Supplies Required:

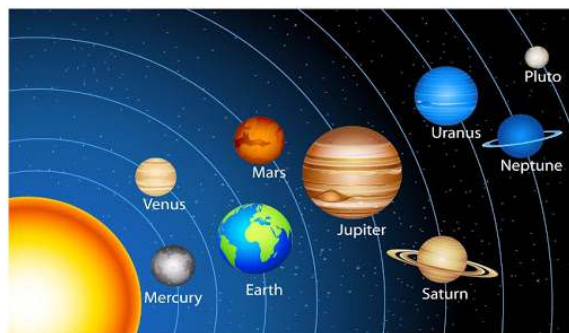
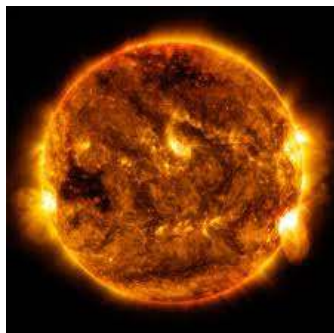
- 11 sheets of construction paper, various colors
- 2 sheets should be black
- Crayons or colored pencils or glitter
- 1 pair of scissors
- Tape
- String
- 1 large piece of cardboard made from cereal

Video

Listen to [The Sun is Kind of a Big Deal](https://tinyurl.com/vlrejqq) before completing the activity: <https://tinyurl.com/vlrejqq>
Directions for how to create the solar system: <https://tinyurl.com/wdjlhcc>

Overview

Scientists say that the Sun is a "dwarf" star which sits at the center of our universe. In the story, we learn that Earth is the third planet from the Sun. Science tells us that the Sun's gravity holds our solar system together, keeping everything in its orbit. The connection and interaction between the Sun and Earth drive the seasons, moon phases, day and night and the weather. Each planet has its own unique properties, based on its distance from the Sun and the other planet. Each planet stays in its own spot due to its orbit. Let's take a trip to outer space!



Instructions

1. Begin by drawing a large circle for the Sun, ask an adult for help as you go along
2. With the remaining sheets of paper (except the black) draw 8 more circles
3. Just like in the video, make sure that each planet is smaller than the last one
4. Cut your circles
5. Make your planets more exciting by decorating them with glitter or color
6. Next grab a large piece of cardboard and glue the black construction paper to it
7. Begin to glue down your planets in correct order starting with the Sun
8. Glue the back of the Sun and place on your board/model
9. Follow the correct order of placement as shown in the video
10. Don't forget to draw your rings around Saturn and Uranus
11. Use a white crayon or colored pencil to draw the stars, comets, and asteroids
12. Cut 3 or 4 pieces of string at equal lengths
13. Tape strings across your model
14. Hang up your model and pretend you are in space!

Additional Resources

Think About It! If you were an astronaut, what planet would you like to explore first? Why? Why is the sun so important? What would life on Earth be like if we didn't have the sun? Compare and contrast the planets--what is similar and what is different?

1. More interesting facts about the Sun: <https://tinyurl.com/t3yry7q>
2. Watch the full length feature "Journey to the Edge of the Universe" here: <https://tinyurl.com/kvt2xbh>
3. Explore space with NASA: <https://tinyurl.com/umxfqna>

Share It Out

Share on social media: Take a video with your model in the background and share what you've learned about the planets! Did you do further research on one specific planet? Tag the Adler Planetarium and show them what you know!

Use these hashtags on social media:

#SolarSystemReadAlong
#ProjectExploration
#StemAtHome
#thesunmatters

Share via PE's website: Students who complete STEM@home activities and share what they learned with the PE team via our website will earn points which can be traded in for cash prizes at the Explore Store. Your project number is 102. Learn more at www.projectexploration.org/explore-store

Join PE's character contest!

Design a STEM character who will lead kids through activities and be featured on our website and in our STEMbooks. Cash prizes will be awarded to the top 3 finalists. Learn more at: www.projectexploration.org/character-contest.



Need help? Call us: 312-772-6634

www.projectexploration.org