

MY GALAXY

The Purpose of The Activity :

Learn the concept of "Galaxy" and design a "Solar System" model.

The Theme Beyond Disciplines :

How the world works



**CURIOUS
BOX** 

TUNING IN

Let's Arouse Curiosity



FINDING OUT

What Should Little Science People Discover?



SORTING OUT

Let's Start Discovering! Scientific Explanation For The Curios, Video



GOING FURTHER

What else can we do?



TAKING ACTION

Question of the day?



MAKING CONCLUSIONS

Activity pages, Exit Card



INQUIRY CYCLE

MY GALAXY



Let's Arouse Curiosity

Following questions will be directed to students:

- "What do you see when you look at the night sky?"
- "What do you see when you look at the daytime sky?"
- "When we look at the sun, it seems so far away, doesn't it? Is the sun really far from us?"

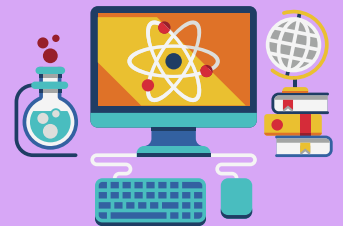
As the Earth rotates around itself, it gently revolves around the Sun. At the same time, it has 'friends' around its orbit. Exactly seven friends! We call them planets. So, do any of you know the names of these planets? Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune... In fact, there are many more planets besides these.

Even scientists don't know them all. Shall we explore planets, stars, and meteorites together?" Materials for the activity are taken out and examined.

Let's Start Discovering!

The activity video is watched by pausing. Before proceeding with the activity the content of the set is checked. All lid and package opening stages are done at the same time with students.

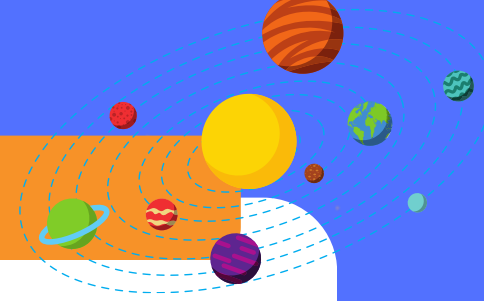
Watch the video by pausing!



Content Of The Set

- | | |
|--|---|
| <input type="checkbox"/> Galaxy template | <input type="checkbox"/> Various colors of paint (not |
| <input type="checkbox"/> Wooden template | included in the set) |
| <input type="checkbox"/> One clothespin | <input type="checkbox"/> "Follow the Line!" activity |
| <input type="checkbox"/> Double-sided tape/duct tape or liquid | sheet |
| adhesive (not included in the set) | |

How Do We Do It?



1. Planets and the sun are taken out from the galaxy template.
2. The backs of the planets are painted in different colors.
3. The sun is placed in the center of the wooden piece. A clothespin is passed through the hole in the center of the sun, and the legs of the clothespin are bent to the sides.
4. Planets are glued around the sun according to the proximity of the solar system. Your galaxy model is ready!
5. The sun is held steady, and the planets revolve around it.

What Should Little Scientist Discover?

Following questions will be directed to students:

- What is the solar system? Which planets are in the solar system?
- Do you know what a galaxy is?
- In which galaxy do we live?

During the daytime, we see the sun and its rays spreading when we look at the sky. In fact, during the day, there are planets and stars in the sky, but we can't observe other celestial bodies because the sun illuminates the sky too much. At night, the sky is dark, so we can see the tiny circular celestial bodies, namely stars and planets, shining in the sky more comfortably.

What is the Solar System?

The solar system consists of the sun and everything that revolves around the sun, including planets, satellites, meteors, and comets. The sun is a star, and we live in its system. There are eight planets in the solar system. These are **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune**, in order of their distance from the sun. Each of these eight planets has different characteristics.

What is a Galaxy?

Stars don't exist alone in space. Each is a member of a group formed by many stars. The structure formed by large star groups coming together is called a galaxy. **The clouds, planets, satellites, comets, and asteroids** that make up the stars are also elements of galaxies. Earth is located in the Milky Way Galaxy.

For the Curious: Scientific Explanation

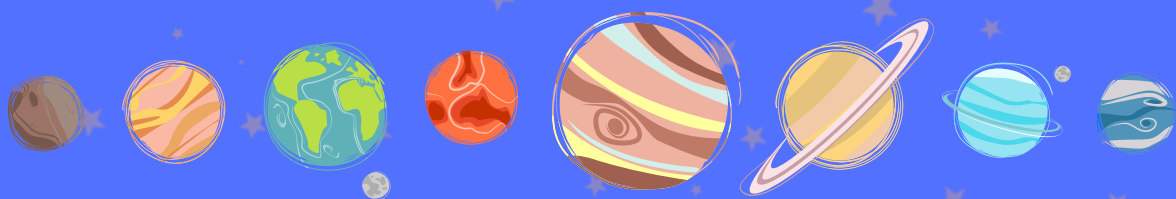
Following questions will be directed to students:

- Which planet do living beings inhabit?
- Do you know which is the largest planet?

The solar system is made up of everything that revolves around the sun and the sun itself. This includes eight planets and their satellites, dwarf planets, and numerous asteroids, comets, and other small, icy objects. However, despite all this, most of the solar system is empty space.

The solar system itself is just a small part of a massive star system called the Milky Way Galaxy and other objects. The Milky Way galaxy is just one of the billions of galaxies that make up the universe.

To date, nearly **5,000 planets** have been found outside the solar system. All of these are within the Milky Way galaxy. There are eight planets in the solar system. These are, in order of proximity to the sun: **Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune**. The characteristics of the planets in the solar system are as follows:



Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune



Mercury The closest and fastest planet to the sun. It is the smallest planet in the solar system and has no moon.



Venus It is the hottest planet due to its dense greenhouse gases. It is approximately the same size as Earth.



Earth Appears blue from space. It is the only known planet with living organisms. Its atmosphere contains 78% nitrogen, 21% oxygen, and 1% other gases. Earth's only satellite is the Moon.



Mars It has a reddish color due to iron oxide. That's why it is called the Red Planet. It has two moons (Phobos and Deimos). Many findings suggest the possibility of life on Mars.



Jupiter The largest planet in terms of diameter and mass. It has 79 satellites.



Saturn The most distinctive feature of Saturn among the planets is its ring made of ice and rocks. The planet has more than 30 satellites of various sizes.



Uranus It completes its orbit around the sun in 84 years. It has 27 satellites. Its inner rings are narrow and dark, while its outer rings are bright and observable.



Neptune It is the eighth and farthest planet from the sun. It has 14 satellites. It is one of the coldest places in the solar system. Note: Saturn, Jupiter, Uranus, and Neptune have rings. But in terms of observability, the most prominent ones are Saturn and Uranus.



What Else Can We Do?

Dear Teacher,
With our little scientists, you explored the concept of a galaxy and created the solar system. In addition to this, you can create a galaxy model with your students by doing the "sensory bottle" activity.

Sensory Bottle



Materials:

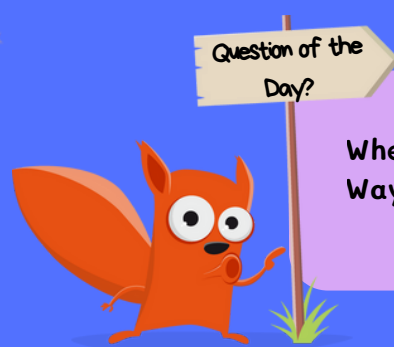
- Colored glitter
- Different sizes of sequins
- Diluted transparent glue
- Baby oil
- Transparent empty bottle

1. Put glitter and sequins into an empty bottle.
2. Add transparent glue to the bottle about 1 cm.
3. Fill the rest of the bottle with baby oil.
4. Close the bottle tightly.
5. Shake the bottle nicely. Your galaxy is ready.

Note: Besides glitter and sequins, you can use other materials in the activity.

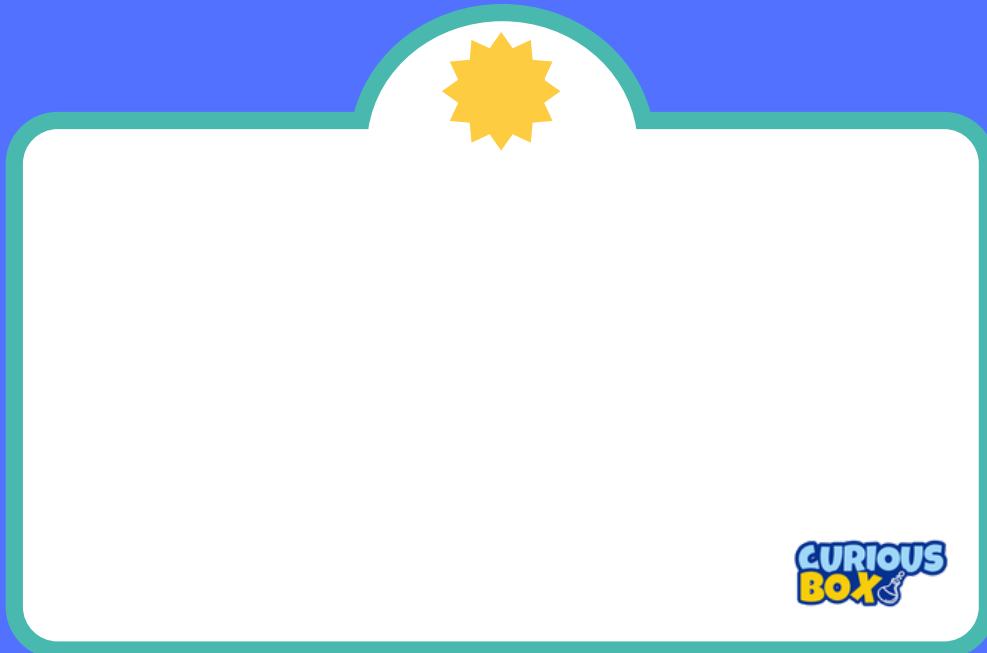
What Did We Discover? / Exit Card

“Little Scientists, today we discovered with you what the galaxy is and the properties of the planets in it. We learned which galaxy we live in. So which is your favorite planet? is asked. After the answers are received, click “Follow the Line!” on the activity pages. and “Design Planets!” is made. Students are given an exit card at the end of the activity.



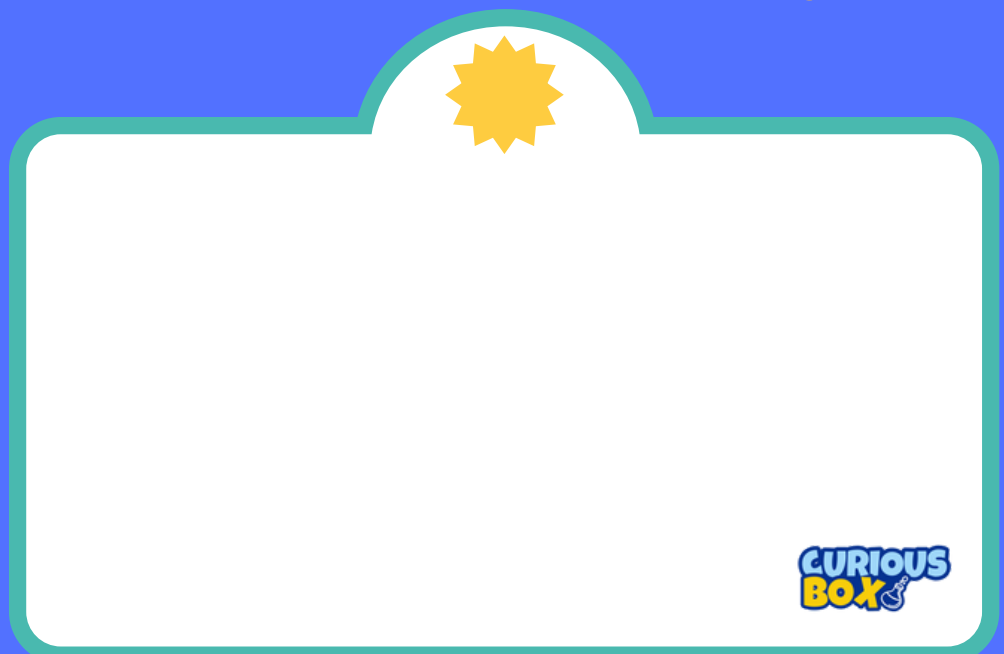
Where is Earth located in the Milky Way Galaxy?

Did exploring
have fun? Draw!



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How did this event
make you feel? Draw!



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