

## ACTIVITY 8

# WHAT SOLAR SYSTEM OBJECT AM I?



Level:  
Grades 3-6

Preparation:  
easy

Number of students:  
groups of 4 to 5

Length:  
20 min.

Place:  
classroom

Type of activity:  
game

## BRIEF DESCRIPTION

Students guess which celestial body of the Solar System they are. They ask yes/no questions, and guess based on the information on the board.

## MATERIALS

- Solar System information table (1 per team or per person)
- names of objects, printed and cut out
- Post-it notes or stickers (students will have their object on display on their foreheads)

## PREAMBLE

Most people are familiar with the major planets and know that comets and asteroids exist. **However, the Solar System contains hundreds of interesting objects**, some of which are similar in size to the planets —such as some moons of Jupiter and Saturn. These worlds have fascinating histories and deserve to be better known. This game gives your students a chance to get to know some of these lesser-known objects in the Solar System.

## PREPARATION

**Print one object chart for each team.** You may also choose to print individual copies for students so they can check off objects as they are eliminated.

**Print and cut out the object names, preparing one complete set per group.** Be sure each set contains more objects than there are students, so the game can't be easily solved by elimination..

## STEPS

**Divide students into groups of 4–5 and give each group an object chart.** To assign each student an object without revealing it, have them place a folded piece of tape or a sticky note on their forehead. Then, give each student a card with the name of a celestial object and attach it to their forehead so that everyone else can see it, but they cannot..



**Students take turns asking yes/no questions to figure out which object they are.** Questions should be based on the information provided on the chart. For example, a student might ask, “Am I a planet?” or “Am I farther from the Sun than Earth?”

When a student thinks they know their object, they can ask, “Am I...?” If they are correct, their turn ends and the next student begins. Play continues until each student has guessed their object. Once everyone has had a turn, the game can be repeated with new objects.

Possible discussion questions:

- Had you heard of all these objects before? If not, which ones are new to you?
- Which objects did you find most interesting? Why?
- Were some objects easier or harder to guess? What made the difference?

Did you know that we now know of 8 planets, 5 dwarf planets, 173 moons, thousands of comets, and hundreds of thousands of asteroids in our Solar System.

**DID YOU  
KNOW...?**

## INFORMATION

Many of the objects featured in this game may be unfamiliar to students. You can extend the activity by exploring some of these objects—or categories of objects—in more detail through additional research.

Below are interesting facts about each object that can be shared with students once they have correctly identified their own.

- **Sun:** I am so big; I could hold more than a million times the Earth in size and mass.
- **Venus:** My surface is hotter than a kitchen oven.
- **Jupiter:** I am bigger than all the other planets combined.
- **Neptune:** It takes me 165 years to circle the Sun.
- **Pluto:** I was visited in the summer of 2015 by the New Horizons probe. It was the first time humans saw what I look like.
- **Chury (67P/C-G):** There is currently a small robot sleeping on my surface; its name is Philae.
- **Titan:** I have lakes of methane (natural gas) on my surface.
- **Ceres:** Discovered in 1801, I was first classified as a planet, then later as an asteroid. Today, I am considered a dwarf planet.
- **Vesta:** I have a giant crater on my surface. The impact that created it almost destroyed me completely.
- **Ida:** I look like a big potato full of craters.

See the glossary at the end of this guide for more information on the types of objects presented in this activity: star, planet, dwarf planet, moon, asteroid, and comet.



## TO LEARN MORE

- [\*List of Solar System objects\*](#), *Wikipedia* page.



<b>Sun</b>	<b>Venus</b>
<b>Jupiter</b>	<b>Neptune</b>
<b>Pluto</b>	<b>Chury</b>
<b>Titan</b>	<b>Ceres</b>
<b>Vesta</b>	<b>Ida</b>

# TABLE OF OBJECTS



	Sun	Venus	Jupiter	Neptune	Pluto	Chury (67P/C-G)	Titan	Ceres	Vesta	Ida
I am a...	Star	Planet	Planet	Planet	Dwarf Planet	Comet	Moon	Dwarf Planet	Asteroid	Asteroid
I orbit around...	Centre of the galaxy	Sun	Sun	Sun	Sun	Sun	Saturn	Sun	Sun	Sun
Am I bigger than the Earth?	Yes	No	Yes	Yes	No	No	No	No	No	No
Am I bigger than the Moon?	Yes	Yes	Yes	Yes	No	No	Yes	No	No	No
Do I have an atmosphere?	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
Do I have moons?	No	No	Yes	Yes	Yes	No	No	No	No	Yes

**Information:**

An **atmosphere** is a layer of gases surrounding an object. On Earth, this layer is made mostly of nitrogen and oxygen—we call it “air,” and it’s what we breathe. Other objects also have atmospheres, but they are made of different gases that humans cannot breathe.

A **moon**, or natural satellite, is an object that orbits a planet, dwarf planet, or asteroid. Earth has one moon, called the Moon, but some objects have many. For example, Jupiter and Saturn each have more than ninety moons!

