



EXPLORING THE UNIVERSE

Space Guess Quest

Let's play a game!

1. First, find a partner.
2. Each player should have a board, and each of you should pick one space object card. Don't show your card to your partner—this is your mystery object! You can also have more than one person on each side and play as a team.
3. Now, take turns asking **yes-or-no** questions to figure what your partner's mystery object is.
4. The player who correctly guesses their partner's mystery object first wins!

Here are some tips and helpful questions you can ask each other.

There are five categories of space objects. Pick a category and ask if your partner's card belongs to it. For example, "Is your mystery object a nebula?"

Try to narrow down large categories, and then get creative. For example, "Is your mystery object inside our solar system?"

Ask about recognizable physical features. For example, "Is it round?" or "Does it have an unusual shape?"

As you get closer to making your final guess, ask about more detailed features like colors or surface features, or the number of solar panels on a spacecraft!

The universe hosts a wide variety of objects, like nebulas, galaxies, stars, worlds, and even human-made spacecraft!

Scientists often use visual clues to identify objects in space. When a scientist looks out into space with a telescope, there's literally a whole universe of objects to observe. Just like in this activity, scientists sometimes start by asking "What does it look like, and how is it different from other objects?" Although we can see differences between some objects using just our eyes, NASA scientists also use powerful tools, like telescopes, to gather more detailed information and create pictures and images.

Scientists use a wide range of criteria, such as shape, color, brightness, size, and distance, to sort and categorize the objects they see. Sometimes it's easy to categorize an object and sometimes it's more difficult. Seen through a space telescope, a star looks nothing like a nebula. But what makes one nebula look different from another? Does its shape provide information about what's happening to its clouds of dust and gas?



The Hubble Space Telescope captured this photo of the Pillars of Creation.



Orbiting Earth, NASA's Transiting Exoplanet Survey Satellite (TESS) will look at the light from other stars to find exoplanets.

Scientists rely on a variety of tools as they explore our universe. The tools that scientists use to look at objects in space often provide us with stunning images. While some of the images in the game are artistic interpretations, most are real images produced by ground- and space-based telescopes.

NASA and other space programs have sent many spacecraft across our solar system to collect data and images about planets and moons. Objects outside of our solar system are harder to reach, so researchers use powerful space telescopes to study them, producing some of the most vivid images we have.