Astronomy is one of the oldest sciences in the world. The study of astronomy involves all of the objects outside Earth's atmosphere. These include the Sun, Moon, planets, stars, galaxies, and all other matter in the universe. People known as astronomers have studied these objects for thousands of years.

Most of the universe's objects are located in galaxies. The galaxies are huge groups of stars along with gas and dust. The planet Earth is located in a galaxy called the Milky Way. One of the stars in that galaxy is the Sun. Earth and the other planets revolve around the Sun. Astronomers study the universe in different ways. Some astronomers work in laboratories. There they study actual samples of objects that have been collected by spacecraft. These include meteorites, rock samples from the moon, and dust particles. Many astronomers observe distant objects with the help of telescopes. Telescopes range in size. Some are small enough to be carried by hand. Large telescopes are often housed in buildings known as observatories. The Hubble Space Telescope is in orbit around Earth as a floating observatory. The Hubble magnifies and records images of distant space objects. It then sends the information to astronomers on Earth.

Thousands of years ago, there were no calendars or clocks. People kept track of time by watching the Sun and the stars. It was important for them to know the time in order to sow their crops and reap their harvests. These people were the first astronomers. In 1543 Nicolaus Copernicus published a revolutionary new theory where he believed that Earth and the other planets revolve around the Sun. Later astronomers made new discoveries that also supported Copernicus' idea. Today, astronomers know that Copernicus was correct. But there are still many questions about the universe. Astronomers continue to try to answer those questions.

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Word of the week:

Observation:

Observation means looking closely at something to understand it better. Astronomers created tools like telescopes and special cameras to help them observe the universe.

These important observations helped them discover the planets and other things in our solar system. Questions:

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1. Look up at the sky during the day and at night. What can you see?

2. Why do you think scientists want to learn about our universe?

3. Would you ever want to travel to outer space?

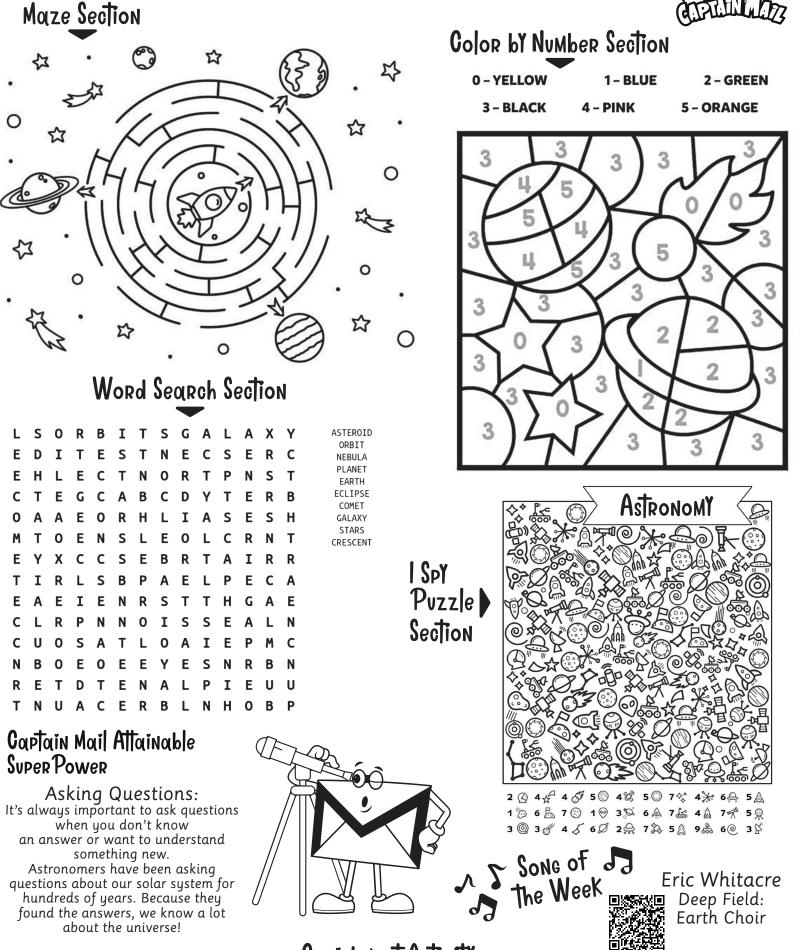
4. What skills do you think astronomers need to be successful?

CAN YOU FIND THESE HIDDEN OBJECTS:

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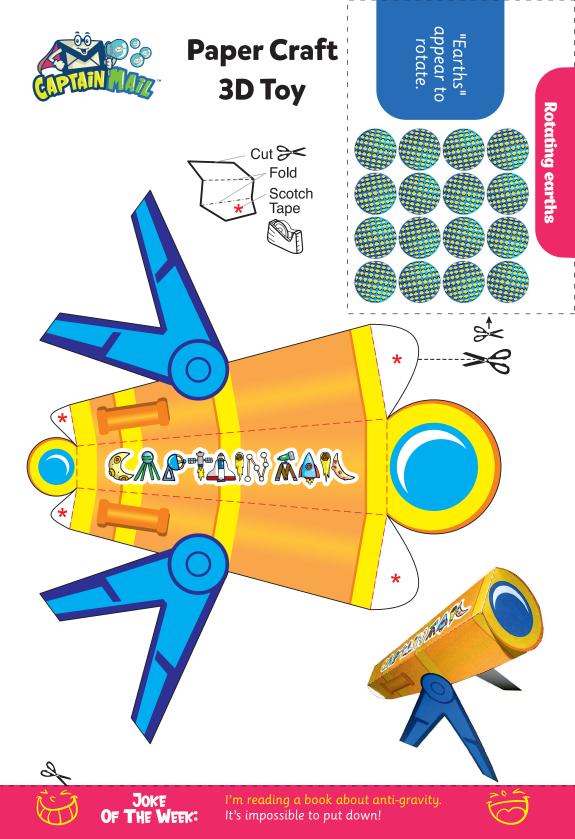
Activity Sheet





## Enrichment Activity

The Hubble Telescope has helped astronomers study space for many years. What part of space do you think is the most exciting? Draw your own telescope. What would you want it to see?





## Dear Young Explorers,

Get ready to blast off into the sparkling universe as we embark on an amazing adventure through the world of astronomy!

Astronomy is all about the stars, planets, and everything that shines in the night sky. Imagine floating in space and discovering the secrets of distant galaxies and twinkling stars!

In this special packet, we'll learn about the planets in our solar system, like the fiery Sun, the mysterious Moon, and the colorful planets like Jupiter and Saturn.

We'll have lots of fun exploring the constellations, which are like pictures made of stars. Can you spot the Big Dipper or Orion's Belt? It's like connecting the dots in the sky to create amazing pictures!

The universe is full of wonders just waiting for us to explore. Together, we'll become the bravest space explorers and discover the secrets of the stars.

Remember, as we gaze up at the night sky, we're not alone. People from all around the world have looked up at the stars and wondered about the vastness of space. So let's use our imaginations and let the stars guide us to new and exciting discoveries!

Get ready to launch into the cosmic wonders of the universe!

> Your friend and sidekick, Captain Mail





