## How Do tloons Form?

Moons are solid objects that orbit around a larger body. Moons can form in three different ways:

## 1. A moon forms from the "left-overs" of a planet.



Often when a planet forms, some dust and gas particles don't get drawn into the gravitational pull of the rest of the new planet. Instead, the remaining matter gathers, effectively creating its own gravity. More and more particles are drawn towards it, and this forms a moon.
2. An asteroid becomes a moon.


Sometimes asteroids get pulled in by a planet's gravitational pull. In these cases, the asteroid can either enter the planet's atmostphere or begin orbiting the planet.

## 3. Parts of a planet break off and form a moon.



Earth's moon was likely formed in this way. Scientists theorize that a Mars-shaped object hit our planet, causing chunks of rock to break off from Earth. These chunks gathered together and began orbiting Earth.

## Moon Match

Do research to identify each image of the moons below.


This is the second largest moon in our solar system! It is also the only moon that is known to have a dense atmosphere, and actually resembles Earth in many ways.

Orbits the planet: $\qquad$
Moon:


This moon is the only large moon in the solar system with a retrograde orbit, which means it orbits in the opposite direction of its planet's rotation.

## Orbits the planet:

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This Galilean moon has an icy crust, and many scientists believe it houses a giant ocean underneath, one that could possibly support life!

Orbits the planet: $\qquad$
Moon:


This is one of Jupiter's four Galilean moons. It is covered in volcanoes, sulfur pits and radiation.

## Moon:

$\qquad$

Moon:

## Word Bank

Titan Io Saturn Europa Jupiter
Pan Atlas Triton Neptune

