

How Planets Formed – Answer Key

In the early stages of the solar system's development, there were no planets. Scientists believe that the planets formed from smaller bodies called **planetesimals**. These planetesimals collided and formed larger bodies called protoplanets. Over time the high gravitational pull of a protoplanet pulled in smaller planetesimals. Eventually the protoplanets condensed and formed the planets and their moons.

Steps

- 1) Place a drop of water in the center of the piece of wax paper.
- 2) Place a second drop of water about 4 cm away from the first drop.
- 3) Lift one corner of the wax paper so that the second drop flows toward and into the original drop of water.
- 4) Add a third drop of water 4 cm from the original drop and repeat step 3.

Questions

1) What happened when the first two drops collided?

They joined together.

2) What happened when the third drop collided with the original drop?

They joined together to make a bigger drop of water.

3) What process does this activity model?

This activity models how planets were formed.

4) What are the early stages of planet development?

Small masses collided and formed larger masses that eventually became the planet.

5) Draw a picture that represents this activity.

