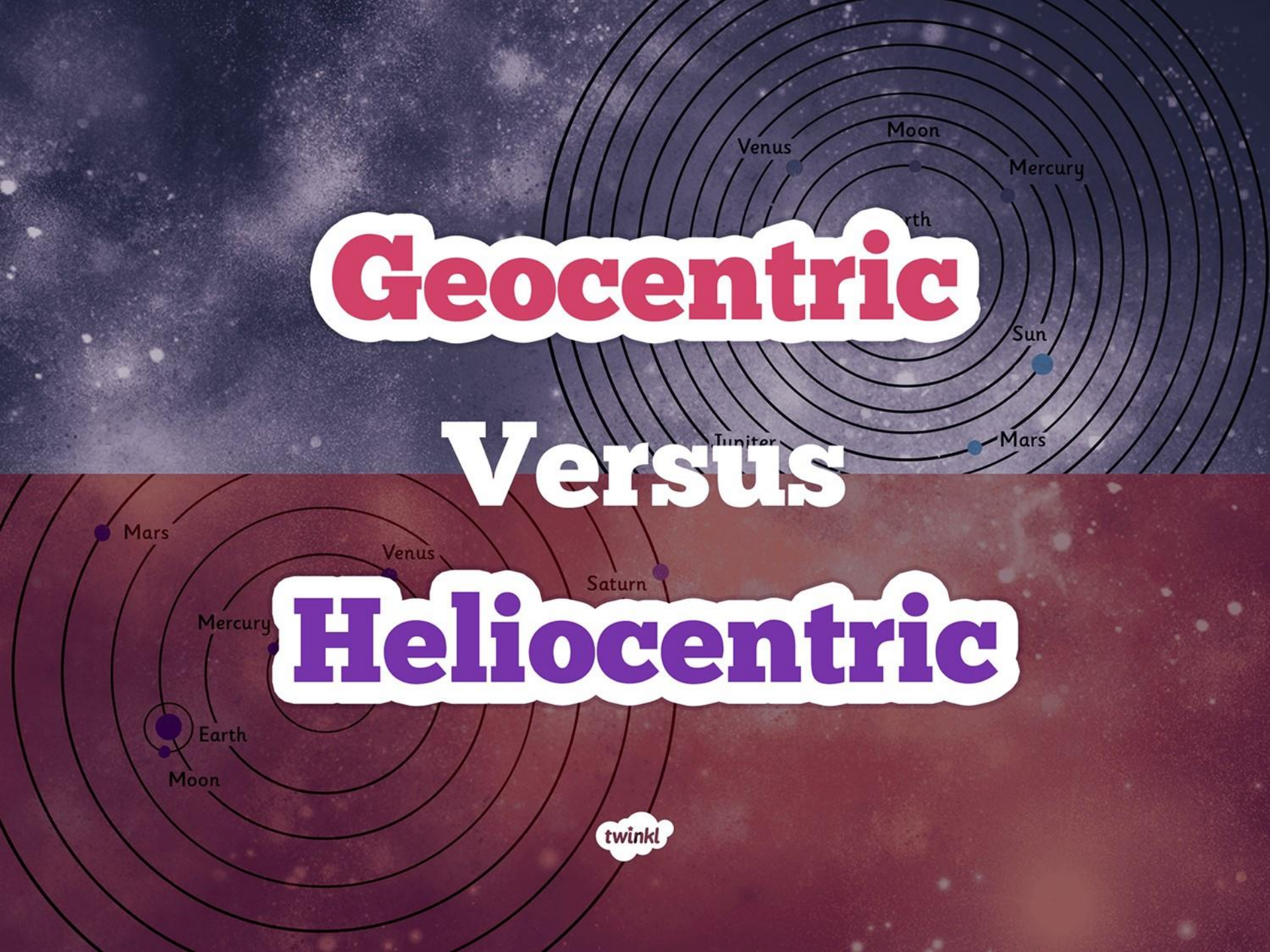

Venus
Moon
Mercury
Sun
Mars
Geocentric
Versus
Heliocentric
Mars
Venus
Saturn
Mercury
Earth
Moon
twinkl

Aim

- I can explain how planets move in our solar system.
- I can identify scientific evidence which does or does not provide evidence for an idea or argument.

Success Criteria

- I can explain how the planets orbit the Sun.
- I can distinguish between heliocentric and geocentric ideas of planetary movement.
- I can explain theories of planetary movement in the solar system using evidence.

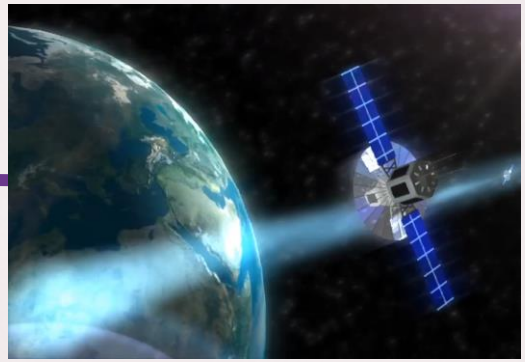
Orbit or Rotate

What is the difference between **orbiting** and **rotating**?

Discuss with your partner and think of how to demonstrate to the whole class.

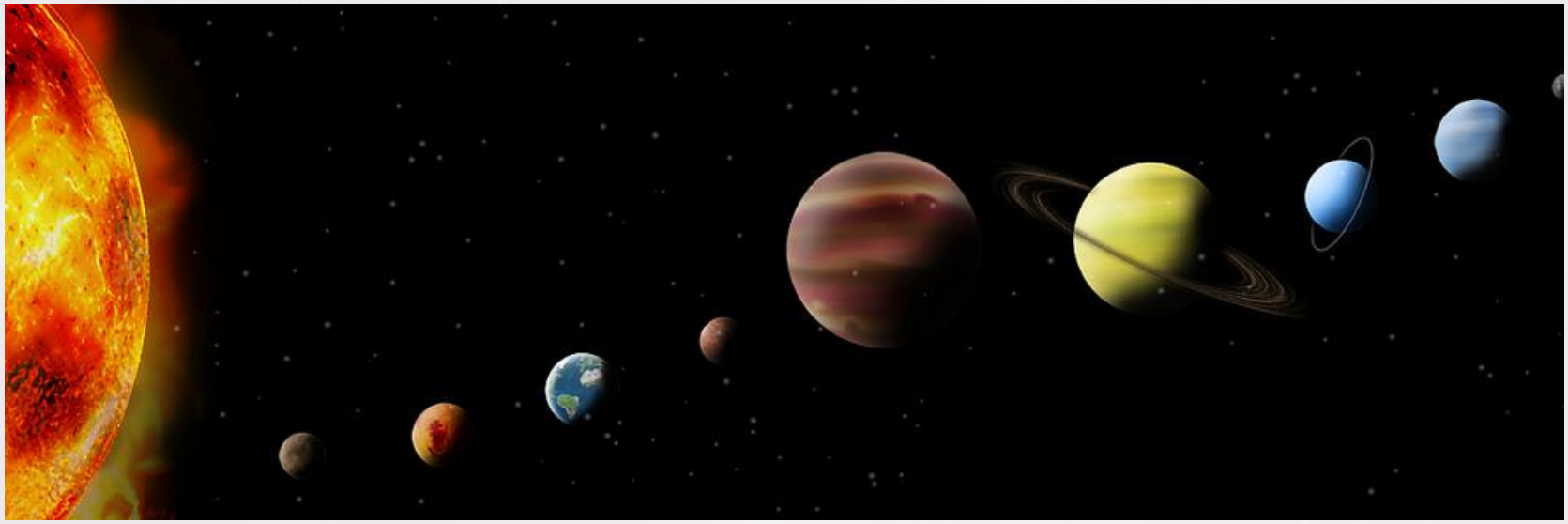
rotate

orbit



How Do Planets Move?

Discuss the following questions with your talk partner:



How do the planets in the solar system move?

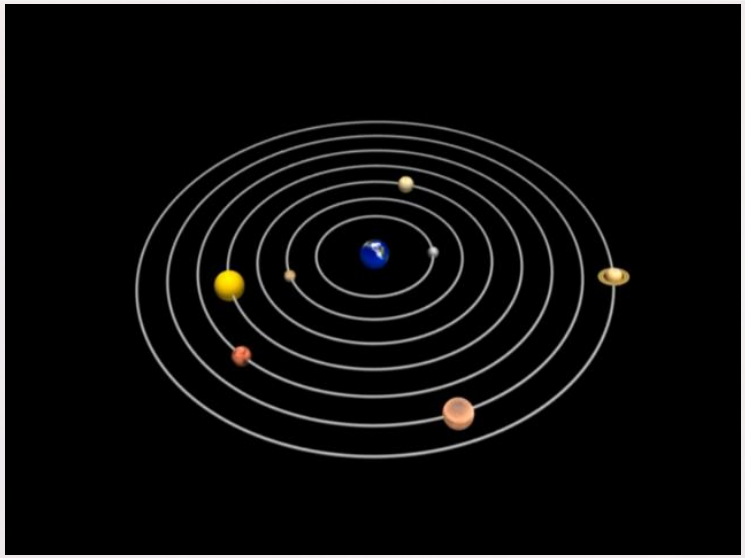
Where is your evidence?

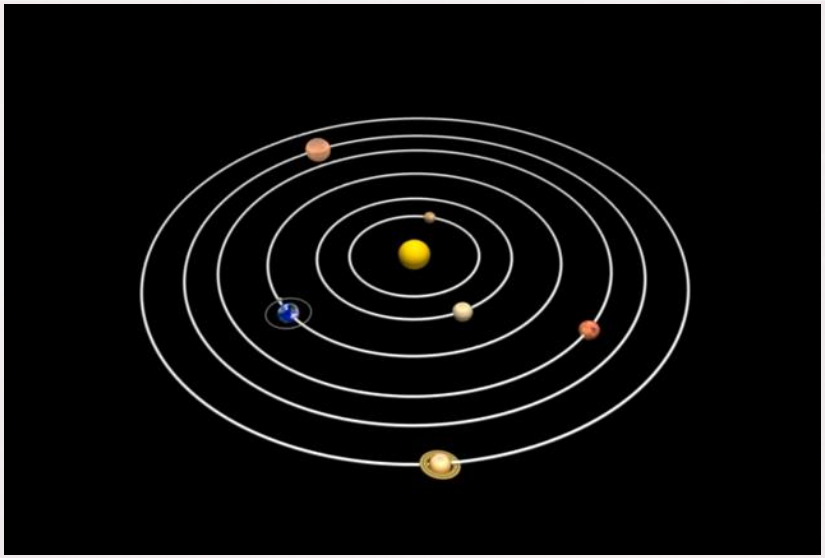
How do you know?

Geocentric Versus Heliocentric

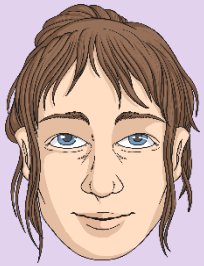
How did these ideas change?

Well, let's act out the story...

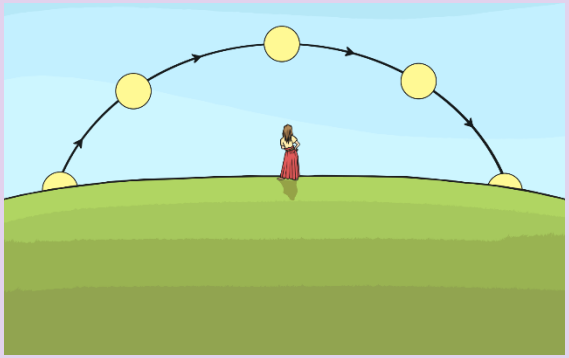


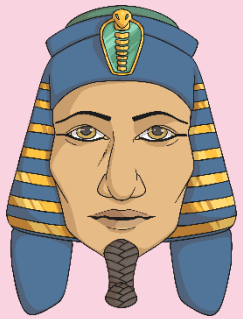


Solar System Story Map – Ancients 1

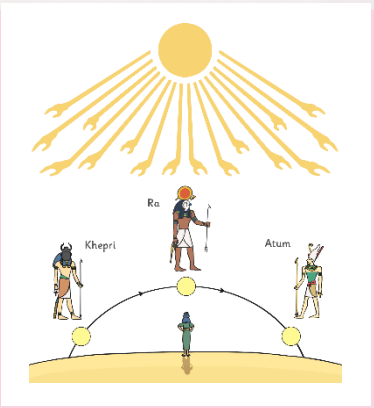


Early Humans – circa 12000 BC





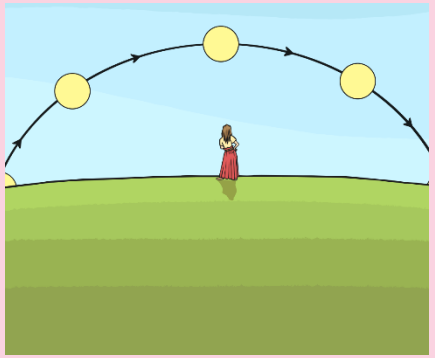
Ancient Egyptians – circa 5000 BC



Solar System Story Map – Ancients 2

Ancient Indians – 1400 BC

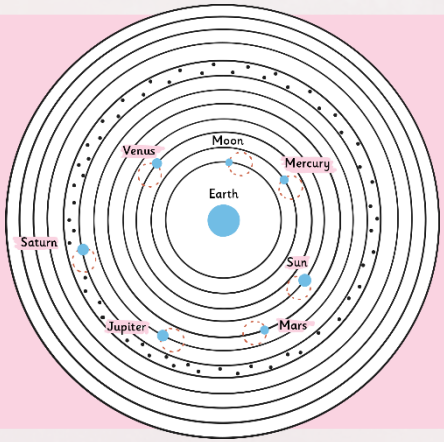
Ancient Babylonian/Sumerians – 700 BC



Solar System Story Map – Ancient Greeks

Aristotle - 384 - 322 BC

Ptolemy - AD 85 - 165

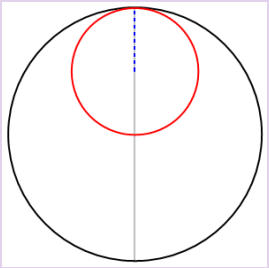


Solar System Story Map – Islamic Scholars

Alhazen - AD 1025 – 1028

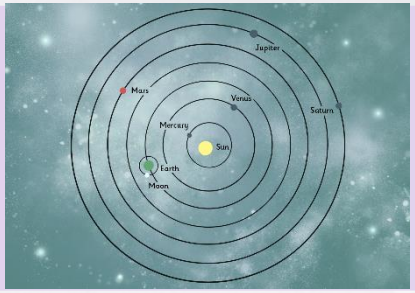
Al Katabi – circa AD 1230 - 1240

Tusi – AD 1247

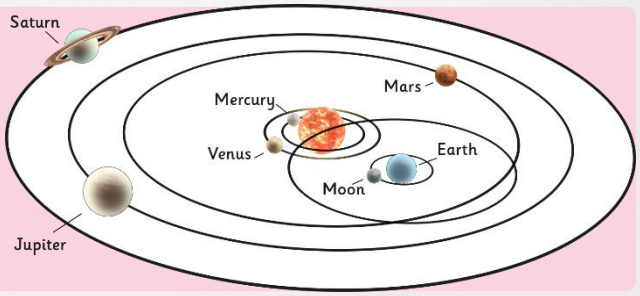


Solar System Story Map – Changing Europe

Copernicus – circa AD 1530



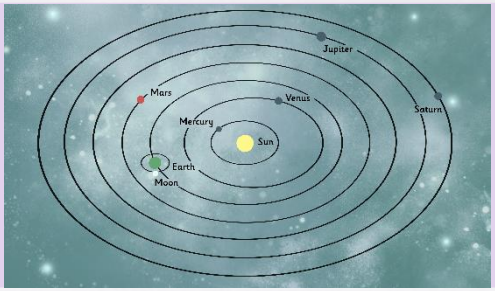
Tycho Brahe – circa AD 1587

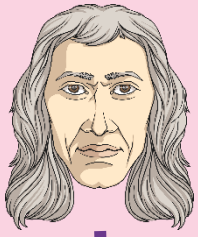


Galileo – AD 1615

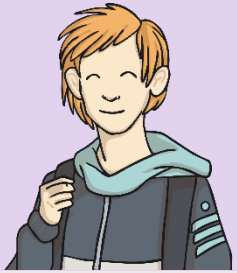
Solar System Story Map – Heliocentric Model

Kepler – AD 1617-1621

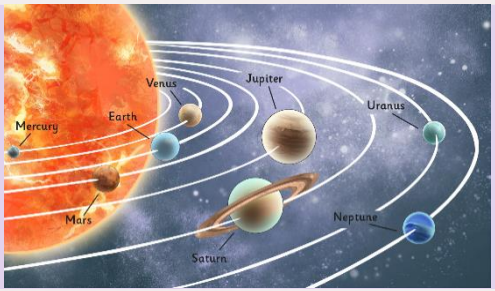




Newton – AD 1687

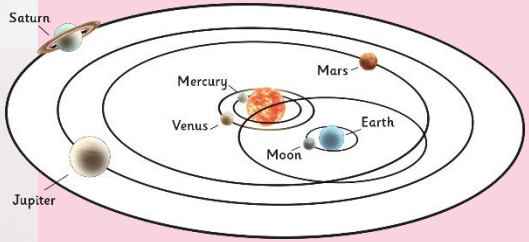


Present Day



Changing Scientific Ideas

How do scientific ideas change?



Why did it take a long time to change from a geocentric to a heliocentric model of planetary movement?

What were the important factors leading to change?

Early Humans, 12000 BC
Ancient Egyptians 5000 BC
Ancient Indians, 1400 BC
Ancient Babylonians/Sumerians 700 BC
Aristotle 384-322 BC
Ptolemy AD 85-165
Alhazen AD 1025-1085
Al-Katibi AD 1230-1240
Tusi AD 1247
Copernicus AD 1530
Tycho Brahe AD 1587
Galileo AD 1615
Kepler AD 1617-1621
Newton AD 1687
Present Day- Today