Scavenger Hunt

GIANT WORLDS

Who was the first person to look through a telescope and discover Jupiter's four largest moons?

Sir Isaac Newton

Galileo Galilei

Albert Einstein

What are three ways in which we explore other worlds?

1. **Ground Based Telescopes**
2. **Space Telescopes**
3. **Space Probes**

Check a box each time you see a moon of a giant planet.

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What are some of the unusual features found on these moons?

Volcanoes, icy crusts, craters, ridges, grooves,

atmospheres, geysers, odd shapes

Scavenger Hunt

GIANT WORLDS

Besides Newton, who else contributed to the theory of gravity?

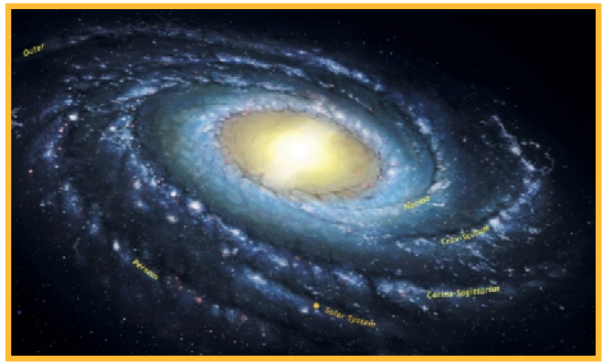
Albert Einstein

What does gravity do?

It is an attractive force between objects that have mass. Gravity plays a role in planet, moon and star formation. Planets orbit stars and stars orbit galaxies because of gravity. Einstein found that space is curved by the presence of mass.

Where is gravity?

Everywhere there is mass!



Find this object.

What interactions occur between your shadow and the virtual bodies?

The virtual bodies can be either attracted or deflected depending on your movement.

Scavenger Hunt

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Find this object. What do you do with it?

Create a probe that is then launched into the enormous atmosphere of Jupiter

What does this tell you about giant planets?

Giant planets are all atmosphere, they have no solid surface. Gas pressure and temperature increase dramatically.

Find this object.

How is it related to giant planets?

Charged particles are guided by the magnetic fields that surround a planet. These particles can excite the atoms in the upper atmosphere to create the aurora.

What causes the auroras on Earth and the giant planets?

Clouds **Charged Particles** Light

Scavenger Hunt

GIANT WORLDS

Find Seeing the Unseen Station.

Place your hand in front of the infrared camera. What colors show the hottest and coldest parts of your hand?

Hot = Red, Cold = Blue

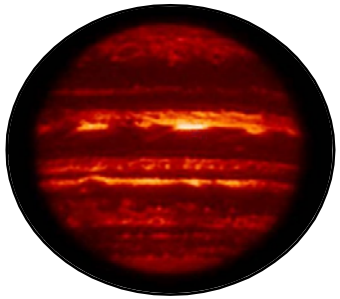
What part of your hand is the hottest/coldest? What about other parts of your body?

Hot – palm, face, Cold – hair, glasses, clothes, fingers

Compare your hand in visible light and infrared light. What are the differences?

Visible – hand is uniform color and you can see lots of details

Infrared – can see hot and cold regions of your hand, but other details are missing



What does the infrared camera "see" that we cannot see directly with our own eyes?

The infrared camera "sees" heat.