



Explore: Teacher Guide

Exploring the Universe Module

Use this guide to reveal student knowledge and generate interest in and curiosity about exploring the universe.

This teacher support document can be completed in conjunction with the online Explore.

Why Explore?

The purpose of the Explore phase is to provide students with a common experience that can be used to reveal student understanding of the concept and promote interest and curiosity.

In this activity, students will manipulate a 3D model of our solar system. They may manipulate their viewing point to study the solar system or double-click on the celestial objects to learn more about them.

Reveal student knowledge and understanding

Use the following questions during the activity to encourage your students to think about tools. Recall that these questions are only meant to reveal current student knowledge of the concept and, therefore, should not be assessed as right or wrong.

- Use the following questions while the students are engaged in the activity.
 - Which planet is closest to the sun?
 - Which planet takes the longest to revolve around the sun?
 - Which planet is farthest from the Earth?
 - What object can you click on that is not a planet?
 - Why did you choose to drag the model to that angle?
 - Which planet is the smallest?
 - Which notes did you choose to keep in your notebook?
 - Why is the sun at the center of this model of the solar system?

Promote interest and curiosity

Use these questions to elicit a post-activity discussion as your students reflect on the activity and its connection to the concept. Recall that these inquiry questions are meant to encourage students' interest in and curiosity about the concept and, therefore, do not need to be recorded and should not be assessed as right or wrong.

- Did anything you learned surprise you?
- Which planet would you like to learn more about?
- If you could recommend this model of the solar system to a friend, why would you recommend it?
- Was it difficult to manipulate this model? Why or why not?
- If you could add any other space objects to this model, what would you add? Why?