

### We Are Learning To

use different models to help us to explain our ideas about the Solar System.

### What I am Looking For is for you to be able to:

- use models to explain our observations of the Solar System (all);
- judge whether or not the different models explain our observations clearly (most); and
- develop the models so that they are correct and dispel misconceptions (some).

### Lesson plan

#### Starter

Using the 'Concept cartoon 14.11 - movement of the Sun' allow the pupils thinking time before asking them to pair up and discuss their ideas for two minutes. Each pair then shares their ideas with another pair before you take feedback. This enables pupils to discuss their understanding of the Sun's movement using the ideas from lessons 1 and 2.

#### Main

This is an opportunity for those pupils who still do not fully understand the concepts from the previous lessons to revisit the essential ideas as well as a chance for more able pupils to apply their ideas and demonstrate the depth of their understanding.

The images of the Solar System that show the positions and orbits of the planets can be used here.

Put pupils into groups of five or six according to prior understanding (responses to the True/False quiz used in lesson 1 may help you to plan the groups). Give each group a statement from the list in the teachers' notes and allow a maximum of 15 minutes to devise a model to demonstrate their statement to the rest of the class. The demonstration should only last for two minutes or less. Pupils could use role-play, paper and pen or equipment such as balls, torches, modelling clay and black paper. Keep pupils to time so they focus on the whole picture rather than on small details.

After each demonstration, ask the rest of the class to evaluate the model by answering three questions in their groups.

- 1 How well did the model explain the idea?
- 2 How could you improve the model?
- 3 Did the model give any wrong ideas?

Their responses do not need to be recorded since discussion is the main focus of the lesson.

#### Plenary

There are various possible plenaries to suit different outcomes of the main activity:

- you may wish to re-model one or two of the statements which pupils found difficult;
- you might like the pupils to play 'Taboo' in groups of three (see teacher notes for how to play); or
- you may want to show pupils the seasons animations (which also illustrates day and night) from the CD-ROM.