



Sample Lesson Plan
The Big Bus Activity: Earth, Moon and Sun



**Earth, Moon
and Sun**

Title

Using *The Big Bus* **Earth, Moon and Sun** to investigate the relationship between these bodies.

Introduction

Exploring why we have day and night, why the Moon has phases, and the reason for the existence of seasons amongst other interesting facts and figures about these heavenly bodies. This activity is packed with useful information and animated explanations.

In this lesson

The children interrogate the program finding the answers to a specially designed quiz.

Age Range: 7 – 11 years

Lesson Plan

Learning objectives

Having completed this activity most children will have developed their understanding of:

- How the position of the Sun appears to change during the day, and how shadows change as this happens
- How day and night are related to the spin of the Earth on its own axis
- That the Earth orbits the Sun once each year, and that the Moon takes approximately 28 days to orbit the Earth.

Technical preparation

Install *The Big Bus* CD-ROM on to the computer. After a short opening sequence select the button to take you to either **Explorers' World** or **Bo Bear's World**. Open the notebook index and scroll through the available activities. Select **Earth, Moon and Sun**.

Introducing the activity

Gather the children around a large computer monitor or interactive whiteboard.

Recap the **key terminology** the children will encounter in the activity. Explain that they are going to be shown how to use a program explaining about how the Earth, Moon and Sun relate to each other. They will then have to use the program themselves to complete a quiz about the information contained in the program.

Direct the children's attention to the computer monitor or whiteboard then select "**Start the activity**". With the exception of "**Space Facts**" work through each section with the children, showing how the navigation works and asking for their input to help answer each question posed. Now show them the "Space Facts" section and demonstrate how to move the shapes around in an effort to correctly construct the **Facts Table**.

After the initial demonstration, and if more than one computer is available, the children could now break into working groups and undertake the activity for themselves. Give each individual or group a copy of the **Quiz Sheet (Section 1)** supplied. The children need to answer questions 1 – 15. Before they start to answer the quiz questions, the children should work through all the activities, excluding the Space Facts section, to broaden their understanding of the relative properties and activities of these bodies.

Allow the children about 15 minutes to complete the activity, and then gather them back together to discuss how they got on. Has the program helped them to understand how the Earth, Moon and Sun relate to each other? What questions has it answered for them? Go through the quiz answers with the children, showing them where the information could be found in the activity.

Classroom management

A single classroom computer running *The Big Bus*, using a large monitor or interactive whiteboard, is an effective whole class teaching resource. Introduce the activity to the whole class before pupils break into their groups.

If you have access to a computer suite this activity can be completed as a whole class lesson.

If you have access to only one or two computers, pupils will need to complete the activity on a rotational basis.

Duration

Each group of children will require approximately 15 minutes of computer time. The teacher introduction and follow-up time will take approximately 10 minutes and 15 minutes respectively.

Differentiation

- The last five questions (16 – 20) relate to the Space Facts activity. This requires the children to complete and interpret the table. It could be included in the lesson if appropriate to all the children, or used to extend certain pupils.

Extending the activity

- The section on shadows can be extended beyond the classroom by creating a sun dial in the school playground.

Curriculum Information**The National Curriculum in England for Science (KS2)**

SC4. Physical Processes.

The Scotland 5-14 Guidelines for ICT

Searching and Researching: Level A.

The Scotland 5-14 Guidelines for Environmental Studies

Science: Earth in Space A, B.

The Northern Ireland Curriculum for Science and Technology (KS2)

Physical Processes –

Light: b.

The National Curriculum in Wales for Science (KS2)

Sc1: 2.3, 2.5.

SC4: 4.1, 4.2,4.3, 4.4, 4.5.

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