



Sample Lesson Plan
The Big Bus Module: Spy School

Spy
School



Title

Using *The Big Bus Spy School* to as a problem solving challenge, testing aptitude with time, dates, distances, money and code breaking.

Introduction

This module tests the children's practical application of their knowledge in four key mathematical areas. Instant feedback is provided and, at any time, a report can be called up and printed showing how the user has performed in each area of the assessment.

In this lesson

The children are shown how to register for the tests, ensuring their individual performance is recorded. Having been shown how the on screen navigation system works and how to move from one area to another, they are then challenged to undertake the full range of modules for themselves.

Age Range: 9 – 11 years

Lesson Plan

Learning objectives

Having completed this module most children will have developed their ability to:

- Solve "real life" problems relating to time, money, dates and distances
- Read the time from an analogue and digital 12 and 24 hour clock
- Use units of time and understand the relationship between them
- Find different ways of approaching a problem in order to overcome any difficulties.

Technical preparation

Install the CD-ROM on to the computer. If you are presented with a choice of Worlds to visit select Bo Bear's World, Adventurers' World or Explorers' World as appropriate.

If you are in Adventurers' World or Explorers' World, open the Information Booklet index and scroll through the available modules to find the module. Select **Spy School**.

Previous experience

A knowledge of the mathematical concepts involved in these problem solving module will help the children gain the maximum benefit from the exercises they undertake.

Introducing the module

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

Recap the **key terminology** the children will encounter in the module. (Relating to time, distance, money and the structure of the calendar). Discuss the term **aptitude** to ensure the children understand its meaning. Explain that they are going to undertake tests in all these areas to see if their maths skills are good enough for them to join the "Spy School".

Direct the children's attention to the computer monitor or white board then select **start the module**. Work through the introduction, reading the text if appropriate for the children, and ask if they want to continue. Show the children how to log on using their own names. Select **level A** for this demonstration, and then select one of the subjects presented. Demonstrate how to use the answer buttons to select one of three possible answers to each question. Point out the line towards the bottom of the screen displaying the score. Having completed one section, show the children how to review their performance by clicking on the **Report** button. Show them the record sheet they will be receiving and how to record their achievement ready to report back to the class. Close the Report screen and then click on **next** to return to the menu from where the next subject can be chosen. After the initial demonstration, and if more than one computer is available, the children could now break into working groups and undertake the module for themselves. Provide each individual with a record sheet upon which to copy down their scores and challenge them to work through all the subjects at a level appropriate to their ability. (Level A is easiest, through to level C hardest).

Allow the children about 20 minutes to complete the module, and then gather them back together to discuss how they got on. If appropriate, compare the record sheets and compile a class record of the results. Ask the children how the Reports help them identify areas where they are strong or weak.

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 module to the whole class before pupils break into their groups.

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

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

Duration

Each group of children will require approximately 20 minutes of computer time. The teacher introduction and follow-up time will take approximately 15 minutes and 10 minutes respectively.

Differentiation

- The modules can be undertaken at three levels of difficulty.

Extending the module

- Challenge the children to create their own coded message for their peers to crack.

Curriculum Information

The National Curriculum in England for Mathematics (KS2)

Ma2: 1a, 1b, 1d, 1e, 2a, 4a, 4b.

Ma3: 4d.

The Scotland 5-14 Guidelines for Mathematics

Problem-solving and Enquiry.

Money: Level E.

The Northern Ireland Curriculum for Mathematics (KS2)

Processes in Mathematics – Using Mathematics: e, f.

Number – Understanding Number and Number Notation: a, c.

Operations and their Applications – b.

Money – a, b.

Measures – j, k.

The National Curriculum in Wales for Mathematics (KS2)

Ma1: 1.1, 1.2, 1.3.

Ma2: 1.1, 3.1.

Ma3: 3.1.