



**Sample Lesson Plan**  
**The Big Bus Activity: Spy School**

Spy  
School



**Title**

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

**Introduction**

This activity 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 activities for themselves.

**Age Range:** 9 – 11 years

**Lesson Plan**

**Learning objectives**

Having completed this activity 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 Big Bus* CD-ROM on to the computer. After a short opening sequence select the button to take you to **Explorers' World**. Open the notebook index and scroll through the available activities. Select: **Spy School**.

**Previous experience**

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

**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. (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 activity**". 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 activity 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 activity, 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 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 20 minutes of computer time. The teacher introduction and follow-up time will take approximately 15 minutes and 10 minutes respectively.

#### **Differentiation**

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

#### **Extending the activity**

- 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.

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