

## Unit 6B

### Spreadsheet Modelling

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This unit allows children to use a spreadsheet to explore a mathematical model, answering what if questions, and exploring how changes in a spreadsheet affects results and identify simple rules.

#### Vocabulary

Spreadsheet

Formula

Data

Cell

Calculate

Model

#### Resources

Excel

#### Assessment

All children will be able to use a spreadsheet to calculate totals.

Most children will be able to explore the effects of changing data in a spreadsheet.

Some children will be able to explore the effects of changing data in a spreadsheet; make predictions and test them.

## Unit 6B

### Lesson 1

#### Teacher Task

##### Skill 1

Open excel and remind class how to enter information and calculate figures.

Explain that they are going to use the spreadsheet to explore a mathematical problem.

Remind them how to enter formula I.e. =C2 / C3

Talk about working on the area of a rectangle and how you would enter that

formula (length x base).

Open cells and (demonstrate on white board for those in difficulty). What to name cells A B C A = Length B = Base C = Area of rectangle.

So they click on cell C1, enter formula = SUM (A1\*B1).

Then fill in cells A, and B, repeat.

Can they see a mathematical pattern forming as they alter the values of A and B?

#### Pupil Task

As above.

#### Learning Outcome

Children can identify and enter the correct formulae into cells, modify the data, and make predictions of changes and check them.

### Lesson 2

As above, for completion of task.

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### Lesson 3

#### Teacher Task

##### Skill 2

Demonstrate how to copy formulae from one cell to another.

On white board draw out:

Task : Multiplication table.

Number A	Number B	Number A x Number B
4	1	4
4	2	8

Extend Number B to 12

#### Pupil Task

Create table ( save spreadsheet onto floppy A).

Investigate changing number in A.

#### Learning Outcome

Children can use formulae to create tables of results.

### Lesson 4

As above, for completion of task.

### Lesson 5

Show the class how to create graphs using the spreadsheet.

Look at the formula.  $Y = X^2$

Create graphs from these  $Y = 2X$

formula. You need to  $Y = X + 3$

create the cells first.

#### Learning Outcome

To create a graph from a specified formula