













Quick View

There are 3 parts to this lesson:

1	Introduction: Complete the spreadsheet planning	 
2	Writing the spreadsheet	    
3	Using the spreadsheet to model different situations	    
	Homework: This homework asks pupils to design 2 possible mazes that their business could produce and sell at the Trade Show. These will be used during activity 6	

Delivery

1. Introduction: Complete the spreadsheet planning

Pupils may start this activity by using **worksheet5a** to examine the break-even point in the example used during the last activity.

Ensure that pupils have planned their spreadsheet before attempting to create it using the software. They could look at the **data page** (activity task and **handout5a**) to see examples of material costs.

Develop this by:

- Encouraging the use of absolute cell referencing.
- Use of borders and colour to separate areas of the spreadsheet.
- Some pupils may use a menu page and command buttons (previous unit)

Show pupils the language cards **language5** for this lesson.

2. Writing the spreadsheet

Pupils now need to create their spreadsheet. They should be encouraged to test it at various stages by inserting test data, making modifications and improvements.

Some pupils may benefit from using a partly prepared model which they can finish whilst other pupils may need to include more advanced skills including linked graphs.

3. Using the spreadsheet to model different situations

Once the spreadsheet has been created and tested the data should be inserted.

At this point tell pupils to complete **worksheet5b**, this asks them to use the spreadsheet to model different situations to examine break-even points.

Develop this by:

- Reminding pupils about asking 'what if' type questions of their model
- Discussing the benefits of bulk purchase vs cash outlay

Homework:

This homework (**homework5** worksheet) asks pupils to design 2 possible mazes that their business could produce and sell at the Trade Show. These will be used during activity 6.

You may feel it appropriate to provide the homework sheet in electronic format for those pupils with computer access at home. Consideration should then be given to:

- How they would return the work and the style - electronic or printed
- Virus protection
- Authenticity of the work

Objectives

Finding Information & Developing Ideas

Pupils should be able to:

- Save files in appropriate formats and create a hierarchical folder structure.
- Automate simple processes by harnessing software tools; recognise where automation tools, such as filtering, can be used to improve safety when using the internet.
- Combine variables within a model in different ways to form rules.
- Recognise that the rules contained within a model determine its output, and make more complex predictions based on several variables.
- Amend existing simple models by changing variables and formulae.

Pupils should be taught to:

- Use appropriate software to create a financial model.
- Find and use external data including test data.
- Use the spreadsheet to model break-even points.
- Some pupils may extend their spreadsheet by using command buttons and graphs.

Preparation

Have you:

- Identified the key elements of this lesson
- Understood the school ICT policy in the areas that may affect this lesson
- Thought about the seating arrangements for any large group demonstration
- Checked that the whiteboard or large screen has been set up
- Prepared any extra work to be used for differentiation
- Prepared any work that teaching assistants may require
- Practised the skills required that need demonstrating
- Prepared any key word displays

Required IT skills for this lesson:

Using a large screen / whiteboard

General spreadsheet skills, linking worksheets, formulae and functions

Some pupils may require revision or extend their work by using command buttons and linked graphs

Differentiation & Extension

Consider the following for some pupils:

- Prepared spreadsheet design
- Partly prepared spreadsheet
- Adding an extra worksheet as a menu page using command buttons
- Finding resource data from other sources, e.g. the Internet

The following resources are available to pupils. Printable versions can be accessed in the 'all resources' within each lesson and are useful for reinforcement, extension or general support.

- 2 Wordsets with audio support
- 2 Wordsearch activities
- 2 Interactive crosswords

Homework & Language

Homework:

Pupils should use **homework5**.

This homework asks them to design 2 possible mazes that their business could produce and sell at the Trade Show. These will be used during activity 6.

You may feel it appropriate to provide the homework sheet in electronic format for those pupils with computer access at home. Consideration should then be given to:

- How they would return the work and the style - electronic or printed
- Virus protection
- Authenticity of the work

Language for learning:

profit
expenditure

loss
formula

income
modelling

Resources

For this lesson:

You will need

- Large screen display or whiteboard
- Access for pupils to **Unit 8.5 > Activity 5**
- Revision guides / handouts for spreadsheets

Teacher Resources:

These are accessed by opening the **Teacher Resources File** on the CD (or network).

Resource Description	Filename	Format
Language Cards	language5	Word PDF
Worksheet on Break-Even spreadsheet	worksheet5a	Word PDF
Handout on data details	handout5a	Word PDF
Worksheet investigating own spreadsheet	worksheet5b	Word PDF
Activity sheet	task5	Word PDF
Summary sheet	summary5	Word PDF
Homework sheet	homework5	Word PDF
Activity answer sheet	act5answers	Word PDF

Pupil Resources:

These are accessed by opening the **Pupil Resources File** on the CD (or network).

Resource Description	Filename	Format
Worksheet on Break-Even spreadsheet	worksheet5a	Word PDF
Handout on data details	handout5a	Word PDF
Worksheet investigating own spreadsheet	worksheet5b	Word PDF
Activity sheet	task5	Word PDF
Summary sheet	summary5	Word PDF
Homework sheet	homework5	Word PDF