




Data handling - stock control

	Age group	14 and above
	Time	30 - 60 mins
	Subject	Computing



National Curriculum links

This activity would suit KS4 students or the top end of KS3.

The national curriculum for computing for key stages 3 and 4 aims to ensure that all pupils *“can analyse problems in computational terms”* and *“are responsible, competent, confident and creative users of information and communication technology.”*

England Key stage 3 subject content

Pupils should be taught to:

- design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems
- undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users

England Key stage 4 subject content

Pupils should be taught to:

- develop and apply their analytic, problem-solving, design, and computational thinking skills

Learning outcomes

Pupils should be able to:

- Create a spreadsheet to perform calculations.
- Use conditional formatting to highlight particular data sets.
- Enable the spreadsheet to present data in line graphs.
- Draw conclusions from the data.

Skills developed

- **Spreadsheets:** Formula use, graph/chart creation.
- **Communication:** Sharing thoughts with others on how they arrived at their solution.
- **Collaboration:** Working with others to discuss the problem.

Prior Learning

Learners will require a basic understanding of spreadsheets and how to use formulae in calculations.

Requirements

Students will need access to computers to complete this task.

Overview of 'Data handling - stock control'

This task is a real-world example of how spreadsheets can be utilised effectively to simplify data handling and calculation tasks.

It is important that a company that supplies goods to customers monitors its stock levels. This means the company will be able to fulfill the orders that their customers make in a timely fashion. An inventory is the number of goods the company has in stock in a location such as a warehouse. The sale of stock items needs to be monitored and the impact on the stock level assessed to determine whether more stock needs to be ordered or made.

In this scenario the stock manager has received the stock levels at the end of October and the sales for November. Their role is to input the stock sold into a pre-made spreadsheet and create spreadsheet formulae and conditional formatting to identify when stock needs to be reordered.

Resource Overview

This resource includes these items:

- Teacher notes.
- Student activity sheet setting out the task and giving the information required for the students.
- Stock control spreadsheet for students to enter data into.
- Exemplar completed spreadsheet which may be used to support students who need some scaffolding.
- A solution sheet giving answers to the task questions.
- Presentation slides to help explain the tasks.

The context

In this problem, pupils receive data about stock levels for six items and their weekly sales over a month. The learner's role in the company is to monitor the stock levels to identify trends and when new stock needs to be ordered.

This task requires the learner to add the stock levels and sales data to the spreadsheet. Learners then create formulae to calculate the stock left at the end of each week and the total monthly sales for each item. They are then required to create a line graph for each item to show the change in stock.

Supporting notes

A spreadsheet has been set up to allow the learners to add the stock levels and formulae to the correct positions. Learners may benefit from having an example completed using the data for item IN001. This demonstrates the use of formula, conditional formatting and creation of the line graph. This information can be taken from the stock levels solution spreadsheet.

Generation Logistics Education Hub

This resource is one of the many engaging resources available from Generation Logistics on their Education Hub. For more details go to: <https://educationhub.generationlogistics.org>