

## Getting Started

Double-click on **Start** to open the case study – a Lesson Guide is included in the application.

*Bowland Maths materials are free for educational use in the UK only. You may install the software on multiple computers or a school network provided it is only accessible to pupils and staff at your school.*

## Overview

The aim of **Fashionista** is for pupils to investigate the mathematics behind fashion trends. Using the 'Trendsetter' (software that has been designed for the Case Study), pupils run simulations of buying patterns in a fictitious shop over an eight-week period and analyse these through the use of charts and graphs; they can do this either including a price variable or without it. Using census population statistics, pupils can then work out how much stock they would need to buy in order to satisfy consumer demand for a particular trend within their own town or region.

## Mathematical content

This case study provides opportunities for pupils to work on Key Concepts and Key Processes in the KS3 National Curriculum Programmes of Study; in addition it involves specific content within Handling data.

The materials are most suited for pupils working between levels 4-6, although the nature of the interactive elements also allows a more exploratory approach for lower attaining or younger pupils. Pupils use the software to explore the effects of varying values and look for patterns and trends. They will take account of feedback to support them to work logically towards results and conclusions.

(Details of the Concepts and Processes addressed and the Range and Content are included in the Lesson Guide.)

## Organisation and pedagogy

The Fashionista case study supports 1-2 one hour lessons of classroom activity with the option for related homework activities. A mixture of whole class and small group work is involved.

Teachers might want to devote a single lesson to Trendsetter, exploring Trendsetter 1 and 2 from a largely mathematical perspective.

Alternatively, the activity can be split over two lessons, dealing with Trendsetter 1 and Trendsetter 2 in turn and the different issues raised by each. Another approach for two lessons might be to encourage pupils to think about and discuss some of the sociological issues associated with fashion trends (and perhaps other trends more generally). There are some potential discussion points in the Lesson Guide.

In keeping with the ethos of the Bowland Maths approach, the role of the teacher is to set pupils realistic targets, challenge them to think and reason for themselves and to manage discussions and plenary reporting sessions. Only as a last resort should techniques be demonstrated. Throughout, the goal is to develop pupils' ability to work and think independently.

## Resources provided

The software comprises:

- **A short introductory film** – about what it is like to run a fashion store.
- **Trendsetter 1** – a simulation that considers age range and fashion items.
- **Trendsetter 2** – a simulation that considers age range, fashion items and price range.

The following print materials can be accessed through the software:

- **Lesson Guide** – for teachers – read the guide first, as it contains more details than this overview.
- **Planning Sheet** – to encourage pupils to record their hypothesis and plan their work.
- **Report Sheet** – pupils use a sheet to present their findings.
- **Graph Sheets** – to create graphs to support pupils' analysis and communicate their findings.
- **Trend Sample Snapshot** – to explore the visual patterns revealed by the growth of the trend.
- **Predicting Trends - How Many To Buy?** – contains the link to the 2001 Census data from which pupils can obtain population demographic data for their region or town.

Excel or Fathom could be used instead of the Graph Sheet or Trend Sample Snapshot – you can also export data from Trendsetter into Excel from the 'Data & graph' section.

## Resource requirements (including hardware & software)

- The teacher will need a computer with data projector (or interactive whiteboard), sound output and speakers. The software is suitable for a Windows PC or an Apple Mac.
- Pupils will need access to the Fashionista software: one computer for each small group of pupils is preferable (speakers or headphones are **not** essential for this).

The software can be run directly from the Bowland Maths website, or you can download the case study and copy it to the computer(s) you will be using during the lesson, or to the school network.

The software requires a modern web browser with [Adobe Flash Player](#) installed. Windows users will also need [Adobe Reader](#) to view and print resources. These are both available for free download from <http://www.adobe.com/downloads/>.

- Pupils will need copies of the Planning and Report sheets, and other handouts as required.

**Note:** When printing PDF files, Please make sure that 'page scaling' is set to 'none', 'no scaling' or '100%' to ensure that diagrams are printed to scale.

## **Minimum machine and software specifications**

**PC** Windows 7, Windows Vista®, Windows XP, Windows Server® 2008, Windows Server 2003, Windows 2000 Intel® Pentium® II 450MHz, AMD Athlon® 600MHz or faster processor or equivalent 128MB of RAM 128MB of graphics memory Internet Explorer 6.0 and above, Mozilla Firefox 2.0 and above, Google Chrome 2.0 and above, Safari 3.0 and above, Opera 9.5 and above, AOL 9.0 and above.

**Mac** Mac OS X 10.6, Mac OS X 10.5, Mac OS X 10.4 (Intel), Mac OS X 10.4 (Power PC) Intel Core™ Duo 1.33GHz or faster processor Power PC G3 500MHz or faster processor 128MB of RAM Safari 3.0 and above, Mozilla Firefox 3.0 and above, Google Chrome 2.0 and above, Opera 9.5 and above, AOL Desktop for Mac 1.0 and above.

**Linux & other systems** – we do not officially support this, and the software has not been tested on Linux. However, it should work on systems with Adobe Flash Player installed. Note that although the download is a PC '.exe' it is actually a self-extracting ".zip" file which many Linux systems will be able to unpack.

## **Installing on a Web Server**

If needed, the case study can be placed on an Intranet server: copy the complete "fashionista" folder to the server and, if necessary, rename "Start.html" to "index.html" or whatever name your server uses for index pages. To comply with the licensing terms, please ensure that access is limited to staff and pupils at your school.