

Topic

Digital World:
Navigating the World



Holy Family Halewood
Year 5 and 6 Design & Technology



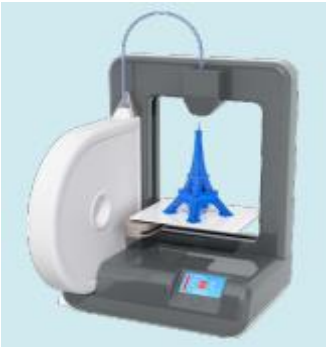
Key Facts



One electronic product with multiple functions could help lighten the load.

3D Printing

A 3D printer can receive and output a 3D model file as a physical item.



It is very expensive to set up and fill with materials.

The models are restricted by the colour of the material the printer uses, but can be hand-painted after printing to add detail.

Key Vocabulary

Biodegradable: Materials that break down and form part of the soil as part of the natural decomposition process.

Boolean: A form of data, which consists of (true) 1s and (false) 0s values.

Environmentally friendly: Does not cause harm to nature (animals, plants etc).

Finite: Limited in number, will eventually run out.

If statement: To instruct a program to respond based on two or more conditions (e.g. if it is below 10 degrees celcius turn on the heating; else switch the heating off).

Mouldable: Can be made into any shape.

Product lifecycle: How long an object is expected to last before becoming unusable.

Product lifespan: How long an object will last, before being recycled.

Smart: A device with processing capabilities.

Sustainable: Can be maintained.

Learning Objectives

- To write a design brief and criteria based on a client request.
- To write a program to include multiple functions as part of a navigation device.
- To develop a sustainable product concept.
- To develop 3D CAD skills to produce a virtual model.
- To present a pitch to 'sell' the product to a specified client.

Sustainable Materials

Cork



Developed from living trees, without causing them harm. Cork comes from bark that regenerates.

Bamboo



Grows rapidly - some species will reach 3 ft in a single day.

Sometimes we need multiple products to help us achieve something. This can be a lot to carry especially if you are trekking.

