

# Year 6 - Digital World - Navigating The World - Term 3

## Key Vocabulary

<b>Biodegradable</b>	Materials that break down and form part of the soil as part of the natural decomposition process.
<b>Boolean</b>	A form of data, which consists of (true) 1s and (false) 0s values.
<b>Environmentally friendly</b>	Does not cause harm to nature (animals, plants etc).
<b>Finite</b>	Limited in number, will eventually run out.
<b>If statement</b>	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).
<b>Mouldable</b>	Can be made into any shape.
<b>Product lifecycle</b>	How long an object is expected to last before becoming unusable.
<b>Product lifespan</b>	How long an object will last, before being recycled.
<b>Smart</b>	A device with processing capabilities.
<b>Sustainable</b>	Can be maintained.

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

GPS tracker

Compass

Torch or headlamp

A map

Pedometer

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.

### 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.

To know statements	✓ X
I know how to complete a design brief, referring to the client's letter.	
I know how to explain the choices they have made on their design brief.	
I know how to write a program that displays an arrow to indicate cardinal compass directions, with an 'On start' loading screen.	
I know how to identify 'bugs' in their program and suggest ways for how to fix them with adult or peer support.	
I know reasons why some materials may be more appropriate than others for their navigation tools and I can use a template to develop a product concept.	
I know what CAD modelling is and some of the benefits of it.	
I know how to experiment with pulling apart and rebuilding Tinkercad remix projects.	
I know how to use a product pitch guided plan and working as a team, identify key information about the product, referring back to the design brief for Adventure Awaits Co.	

What can you remember from previous units?  
 What navigation tools do you know?  
 What is debugging?

Anything else you have learnt? What have you enjoyed?