

Suggested prior learning [Digital world: Monitoring devices](#)

Intended outcome of the unit

Pupils who are **secure** will be able to:

- Incorporate key information from a client’s design request such as ‘multifunctional’ and ‘compact’ in their design brief.
- Write a program that displays an arrow to indicate cardinal compass directions with an ‘On start’ loading screen.
- Identify errors (bugs) in the code and suggest ways to fix (debug) them.
- Self and peer evaluate a product concept against a list of design criteria with basic statements.
- Identify key industries that use 3D CAD modelling and why.
- Recall and describe the name and use of key tools used in Tinkercad (CAD) software.
- Combine more than one object to develop a finished 3D CAD model in Tinkercad.
- Complete a product pitch plan that includes key information.

Key Vocab

smart
 smartphone
 equipment
 navigation
 cardinal compass
 application (apps)
 pedometer
 GPS tracker
 design brief
 design criteria
 client
 function
 program
 duplicate
 replica

loop
 variable
 value
 if statement
 boolean
 corrode
 mouldable
 lightweight
 sustainable design
 environmentally friendly
 biodegradable
 recyclable
 product lifecycle
 product lifespan

Unit specific links:

[Knowledge organiser: DT - Y6 Digital world: Navigating the world unit](#)

Week 1

Week 2

Week 3

Week 4

Week 5

[Lesson 1: Navigating the world](#)

[Lesson 2: Programming a navigation tool](#)

[Lesson 3: Product concept](#)

[Lesson 4: 3D CAD models](#)

[Lesson 5: Product pitch](#)

Suggested Next Steps

