

Year 3/4 DT Summer 2 2025

Wearable Technology

Sessions and Key Learning

Double Session	Key Learning	Activity
1	Evaluating Wearable Technology Research and review existing products	Review knowledge from previous units. Sorting activity. Wearable technology analysis.
2	Light-up wearables Discuss appeal and design specification and criteria	Micro:bit introduction. Creating design criteria.
3	Programming wearable technology To use code to program and control a product	Micro:bit programming. Using code to control a product LAPTOPS
4	Product Concept To develop and communicate ideas	Product concept images, annotation, exploded diagrams, sketches and labels to bring their ideas to life.
5	Point of Sale Displays Developing ideas	Creating POS material to promote their ideas.
6	Focus Group To improve a design through feedback	Self-assessment, peer assessment and working in focus groups to improve and constructively discuss design criteria.

Digital world: Wearable technology

analyse	Look at something in detail.
annotate	Labels on a drawing which help to explain it.
concept	An idea; in this unit, a drawing with labels.
control	To command something to change, such as lighting up or flashing.
evaluate	To decide if the design is the best it can be.
function	What something does.
initiate	To start a program.
program	A script of code that instructs a device to do something.
simulator	A computer-generated imitation of something.
user	A person who uses something.

product concept

An image with annotations, explaining ideas for the shape of a product (form) and how it works (function).

computer-aided design (CAD)

Software that enables the user to create digital images.

Digital revolution

Began in the 1980s and is still happening today. Computer-based (digital) technology has become how many products function. Digital products make life easier for us all.

wearable technology

Technology you can wear to help with day-to-day activities. It has developed over time.

Flashing LEDs

```

on button A pressed
  repeat 10 times
    do
      show leds
      pause (ms) 200
      clear screen
      pause (ms) 200
  
```

Add a flashing pattern

```

on button B pressed
  repeat 10 times
    do
      show icon [LED Grid Icon]
      pause (ms) 200
      clear screen
      pause (ms) 200
  
```

Light sensor

```

forever
  if light level > 100 then
    show leds
  else
    clear screen
  
```

Tips for a good evaluation

Check your design against the design criteria.

Note down something you have done well.

Get feedback from someone else.

Suggest a change.

Designed for children.

Should light up and flash.

Must be wearable.

Must use computer technology.

Must use CAD to sell the technology.

Use a focus group to evaluate the product.