## TMS Computing Launchpad - Year 2023/2024 Year 5



### Computer science



## Information technology



# Digital literacy

#### I know that

Computer programs can use sensors to interact with the world around them.

#### I know that

Data can be organised on a spreadsheet.

Sounds can be manipulated and layered using digital audio workstations.

#### I know that

Not all computing takes place on my computer - a lot of it happens in 'the cloud' huge computers in warehouses around the world connected by the internet.

I can work with other people on a task remotely using a computer.

Live streaming can be dangerous and that I should apply common sense when using them.

#### I know how to:

Program variables to choose randomly.

Program inputs, conditions and sensing for interaction, data variables for scoring and a game timer.

Program Inputs, outputs, loops, conditions, sensing and variables.

Use selection when programming



Use Physical resources to create a real life programmable device.

Use repetition, loops, physical outputs and inputs, sensing and variables.



#### I know how to:

#### Data

Set up and format a sheet for handling data.

Select the correct chart type to present data

Select and use non-adjacent cells plus resize multiple cell widths and copy/paste

Find data and create a spreadsheet to suit

Use formula to find totals, averages and maximum/minimum numbers Search a database for specific information.

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#### Music

Layer tracks using sounds and effects.

Create effective instrument tracks.

Edit tracks and effectively adjust volume and add effects.

Build a song using Live Loops.



#### I know how to:

#### Networking

Understand Computer Networks, Internet and Cloud Computing and how they help us.

What is email and how can we use it safely?

- Format of email addresses
- Re:
- CC/BCC
- Reply vs Reply all

Understand how and why we collaborate online (including blogging).

- What is a network
- Why do we use networks?
- What is the internet
  - Wired and wireless connections
- Cloud computing



#### E-Safety

Identify the type of tactics offenders use on live streaming platforms

The skills to think critically about the people they meet

Identify and respond to pressure and manipulation online

How to deal with issues such as low confidence and self-esteem that may make them particularly vulnerable 'when live' and build resilience

How to identify what is online sexual abuse and the sources of support