# Year 2 Multimedia Knowledge Map

**Expectations**

- I can use technology to organise and present my ideas in different ways.
- I can use the keyboard on my device to add, delete and space text for others to read.
- I can tell you about an online tool that will help me to share my ideas with other people.
- I can save and open files on the device I use.

**Vocabulary** to use

**App**
**Backspace**
**Clipart**
**Delete**
**Enter**
**Insert**
**Keyboard**
**Open**
**Photo(graph)**
**Print**
**Right click**
**Save**
**Shift**
**Software**
**Sound**
**Space bar**
**Video / Film**

***Vocabulary** to develop*

*Animate*
*Copy*
*Folder*
*Image*
*Select*

**Skills**

- Use keyboard to enter text (index fingers left and right hand).
- Know when and how to use the RETURN/ENTER key.
- Use SHIFT and CAPS LOCK to enter capital letters.
- Use DELETE and BACKSPACE buttons to correct text.
- Open and Close Apps and software
- Save and Open files and images.
- Insert images within apps and software
- Capture learning with photo and video

**Expected prior learning**

- Save and open documents
- Take and retrieve photograph
- Create an image using pen pools
- Talk about text, sound, moving and still images

**Cross curriculum context**

- English
- Capture learning in a topic
- Choose to use technology to present historical, geographical, religious, cultural, mathematical, or other learning

**Experiences**

- Paint software or App
- Take and use photographs
- Add images to document
- Enter text
- Video *(and greenscreen)*
- *Make a short animation*
- Use an online tool to share learning Plan labels and compose sentences for a created image

**Concepts and understanding**

- Technology can be used to show learning and ideas
- Online tools can help share learning with other people

**Develop Computational thinking**

Expectations: Computational thinker model http://bit.ly/compthinkingSomerset and Computational thinker younger learners' model http://bit.ly/compthinkingFS_KS1

**Attitudes**
Comfortable making mistakes
Perseverance
Imagination
Collaboration

**Skills**
Pattern recognition
Decomposition
Algorithm design
Abstraction and generalisation

# Year 2 Programming Knowledge Map

## Expectations

- I can give instructions to my friend (using forward, backward and turn) and physically follow their instructions.
- I can tell you the order I need to do things to make something happen and talk about this as an algorithm.
- I can program a robot or software to do a particular task.
- I can look at my friend's program and tell you what will happen.
- I can use programming software to make objects move.
- I can watch a program execute and spot where it goes wrong so that I can debug it.

## Vocabulary to use

**Algorithm**
**Backward**
**Button**
**Clear**
**Code**
**Command**
**Debug**
**Distance**
**Execute**
**Floor robot**
**Forward**
**Go**
**Instructions**
**Mistake**
**Move**
**Pause / *Wait***
**Predict**
**Quarter turn / right-angle**
**Turn left**
**Turn right**
**Sequence**
**Stop**
**Symbol**

***Vocabulary** to develop*

*Half turn*
*Error*
*Program*

## Skills

- Open and Close Apps and software
- Predict outcome of a short sequence of commands
- Use the word algorithm
- Talk through an algorithm that will make something happen or achieve an outcome
- Spot an error in a program
- Debug a short program
- Turn right
- Turn left
- Move forwards and backwards
- Persevere to make a short program do what you want

## Expected prior learning

- Follow and give forward, backward and turn instructions
- Predict actions when buttons and icons are pressed
- Make short sequences for floor robots and simple apps and software

## Cross curriculum context

- English: participation in collaborative conversations, give well-structured descriptions; use pattern recognition and decomposition within phonics and spelling; sequencing of events; algorithms when planning writing
- Maths: counting, movement, properties of shapes, problem solving

## Experiences

- Play 'Simon says' with short sequences
- Guided exploration, prediction and sequencing with programming apps or software
- Plan an algorithm, self-assess knowledge, implement as a program
- Debug own and programs/code of others
- Meet a challenge with a floor robot

## Concepts and understanding

- Order of commands in a sequence is important
- When I debug, I spot where something is wrong and correct it
- Making mistakes is part of programming

## Develop Computational thinking

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**Attitudes**
Comfortable making mistakes
Perseverance
Imagination
Collaboration

**Skills**
Pattern recognition
Decomposition
Algorithm design
Abstraction and generalisation

# Year 2 Technology in our Lives Knowledge Map

<table>
<tr>
<td rowspan="2">Expectations<br><br>• I can tell you why I use technology in the classroom.<br>• I can tell you why I use technology in my home and community.<br>• I am starting to understand that other people have created the information I use.<br>• I can identify benefits of using technology including finding information, creating and communicating.<br>• I can talk about the differences between the Internet and things in the physical world.</td>
<td>Vocabulary to use</td>
<td>Vocabulary to develop</td>
<td rowspan="2">Skills<br><br>• Use personal log in for online resources<br>• Collect and organise information<br>• Ask relevant questions<br>• Use simple children’s search engine eg Swiggle<br>• Follow a hyperlinked image to a website using a laptop or PC OR QR code OR Home screen link on tablet<br>• Tell a trusted adult if something unexpected happens when exploring an information site<br>• Consider reliability of an image or simple text</td>
</tr>
<tr>
<td>Search engine<br>Technology /<br>Computing device<br>Internet</td>
<td>Communicate<br>QR Code<br>Computing devices<br>World Wide Web /</td>
</tr>
<tr>
<td>Expected prior learning<br>• Today’s technology devices help us in different ways<br>• Today’s technology devices can help us with our learning<br>• Follow links provided by a trusted adult to explore a website and find information<br>• Shared video communication</td>
<td colspan="2">Cross curriculum context<br>• English: ask relevant questions, explain understanding of information, develop and order ideas, use spoken language, sequence sentences to share learning<br>• Explore information for a topic<br>• Investigate information for historical, geographical, religious, cultural, mathematical, or other learning</td>
<td>Experiences<br>• Identify today’s technology used every day and organise on a timeline<br>• Talk about benefits of using technology<br>• Identify today’s technology in our locality and how it helps us<br>• Consider internet and world wide web<br>• Look at Apple Ant website to consider reliability of information<br>• Make a ‘website’</td>
</tr>
<tr>
<td>Concepts and understanding<br>• Today’s technology helps us in different ways<br>• Other people have created information online (and in books)<br>• Similarities and differences exist between online and physical world</td>
<td colspan="3">Develop Computational thinking<br><br>Expectations: Computational thinker model http://bit.ly/compthinkingSomerset and Computational thinker younger learners’ model http://bit.ly/compthinkingFS_KS1<br><br>Attitudes<br>Comfortable making mistakes<br>Perseverance<br>Imagination<br>Collaboration<br><br>  <br><br>Skills<br>Pattern recognition<br>Decomposition<br>Algorithm design<br>Abstraction and generalisation</td>
</tr>
</table>

# Year 2 Data Handling Knowledge Map

**Expectations**

- I talk about the different ways I use technology to collect information, including a camera, microscope, or sound recorder.
- I can make and save a chart or graph using the data I collect.
- I can talk about the data that is shown in my chart or graph.
- I am starting to understand a branching database.
- I can tell you what kind of information I could use to help me investigate a question.

**Vocabulary** to use

**Collect**
**Found out**
**Graph**
**Investigate**
**Pictograph/pictogram**
**Questions**
**Record**
**Sort**
**Venn diagram**

***Vocabulary** to develop*

*Branching database*
*Data*
*Decision tree*

**Skills**

- Open and Close Apps and software
- Save and Open files and images.
- Insert images within apps and software
- Make a paper-based decision tree
- Generate questions
- Collect and record data using appropriate apps and software
- Create a pictograph
- Create a block graph
- Present data using appropriate software and apps
- Take photos to record an investigation

**Expected prior learning**

- Describe different kinds of information
- Sort information in different ways
- Record data using app or software
- Create and talk about a pictograph

**Cross curriculum context**

- English: ask relevant questions, explain understanding of information, develop and order ideas, use spoken language to share learning
- Maths: Construct and interpret pictograms and block diagrams.
- Explore information for a topic
- Investigate and represent information for scientific, geographical, mathematical, or other learning

**Experiences**

- Investigate and sort pictures of birds
- Make a paper-based decision tree
- Use a branching database
- Explore data collected by other people
- Generate questions to be answered
- Collect, record and present data using appropriate apps or software
- Compare different ways of presenting information
- *Use a branching database to identify animals*

**Concepts and understanding**

- A decision tree / branching database requires questions with yes/no answers
- Data collected by other people can provide useful information
- Information can be presented in different ways

**Develop Computational thinking**

Expectations: Computational thinker model http://bit.ly/compthinkingSomerset and Computational thinker younger learners' model http://bit.ly/compthinkingFS_KS1

**Attitudes**
Comfortable making mistakes
Perseverance
Imagination
Collaboration

**Skills**
Pattern recognition
Decomposition
Algorithm design
Abstraction and generalisation