



Great Moor Junior School
"Learning Together"
Respect, Kindness, Tolerance, Responsibility, Co-operation

Great Moor Junior School Knowledge Organiser Year 5

(Updated July 2023)



BE SMART ONLINE



S

SAFE

Keep your personal information safe. When chatting or posting online don't give away things like your full name, password or home address. Remember personal information can be seen in images and videos you share too. Keep them safe to keep yourself safe.



M

MEET

Meeting up with someone you only know online, even a friend of a friend, can be dangerous as this person is still a stranger. If someone you only know online ever asks you to meet up, for personal information or for photos/videos of you then tell an adult straight away and report them together on www.thinkuknow.co.uk

THINK
U
KNOW
CO.UK

A

ACCEPTING

Think carefully before you click on or open something online (e.g. links, adverts, friend requests, photos) as you never know where they may lead to or they may contain viruses. Do not accept something if you are unsure of who the person is or what they've sent you.



R

RELIABLE

You cannot trust everything you see online as some things can be out of date, inaccurate or not entirely true. To find reliable information compare at least three different websites, check in books and talk to someone about what you have found.



T

TELL

Tell a trusted adult if something or someone ever makes you feel upset, worried or confused. This could be if you or someone you know is being bullied online. There are lots of people who will be able to help you like your teachers, parents, carers or contact Childline – 0800 11 11 or www.childline.org.uk



BE SMART WITH A HEART

Remember to always be smart with a heart by being kind and respectful to others online. Make the internet a better place by helping your friends if they are worried or upset by anything that happens online.



Year 5 Autumn 1: presenting about the Vikings

Computing Focus: Networks, Searching and Computer Science

What you should know from Year 3 and 4: sequence, algorithm, debugging, executing/running a program, repetition, loops and decomposition and filming.
In this unit we will improve our search skills. Make an animation about the Vikings. Use a green screen. Make a presentation based on my work in history

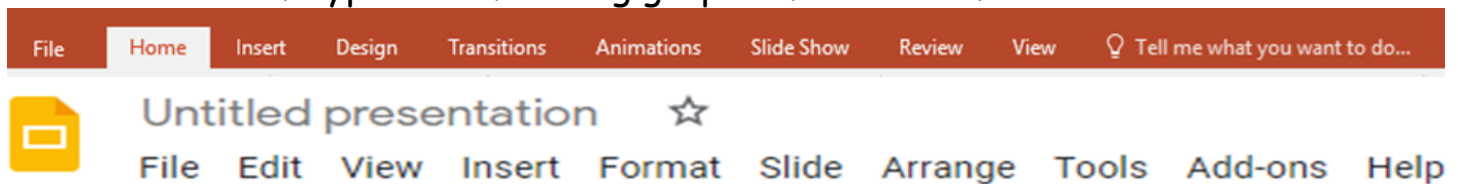
Key Knowledge, vocabulary and skills

Green screen: the green coloured background you want to make transparent and remove from your shot to be replaced by a background of your choice.

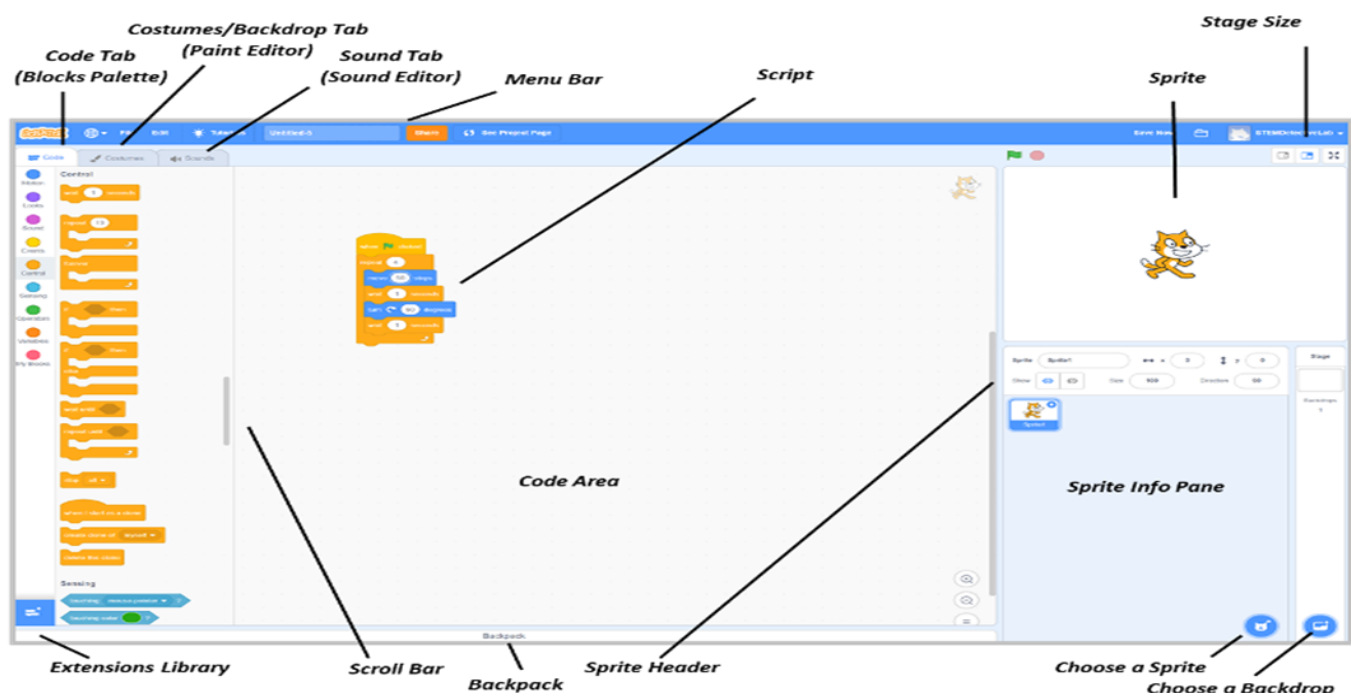
Exclude words from search: When searching put a - in front of a word you want to leave out. For example, jaguar speed -car.

Exact Search: put a word or phrase inside quotation marks (speech marks). For example, "tallest building".

Using PowerPoint and Google slides The Tool bar where you can insert: music /sounds to slides; hyperlinks ; moving graphics; animation; and video



Scratch 3 layout



Online safety / E-safety

Focus on Privacy and security consider what responsible choices should be made when sharing things related to identity online.

Year 5 Autumn 2: Using selection to create a maze game in Scratch

Computing Focus: Programming with Scratch

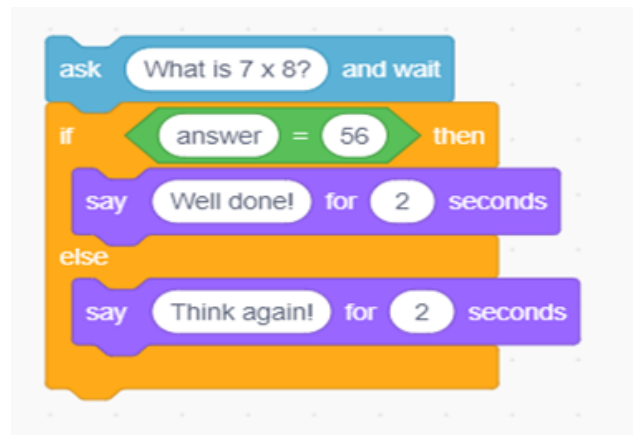
What they should know from Years [3a](#), [3b](#), [4a](#) and [4b](#): sequence algorithm repetition (See Year 3 and Year 4 Knowledge organisers)

In this unit we read a program and predict what will happen. Create a simple maze game and then a more complex game, with at least one variable

Key Knowledge, vocabulary and skills

Selection is where in programming, a computer executes one or other set of instructions according to whether a particular condition is met e.g. **if** the answer is right then get a reward, otherwise (**else**) the answer is wrong. You can use this in a game so the player inputting data can either be correct or else incorrect.

Selection gets your programs to make decisions. So, if one thing happens then do another, or else if it doesn't do the first thing, then do something completely different.



If... then



If...then...else



Logical reasoning: Understanding the algorithm or program so that you know what should happen when the program is run (executed) and if it doesn't run as expected you know why from looking at the algorithm or program why it is not running the way it should.

computer program: It is a set of instructions (algorithm) that has been turned into a computer code that performs a task when run by a computer.

Online safety / E-safety

Focus on Online Bullying: (linked to anti-bullying week) identify a range of ways to report concerns and access support both in school and at home about online bullying.

Year 5 Spring 1: Flat File databases

Computing Focus: Data and information

What they should know from Years [3a](#), [3b](#), and [4](#): collecting and presenting data, using data loggers

In this unit we get to understand, create and use flat-file databases.

Key Knowledge, vocabulary and skills

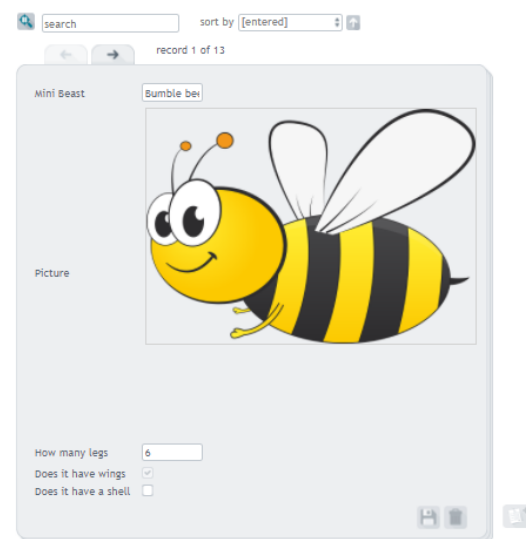
Record: it refers to the rows of field data. (See picture below).

field: it is the columns of data. (See picture below)

database: it is a collection of data that is stored in a computer and that can easily be used and added to.

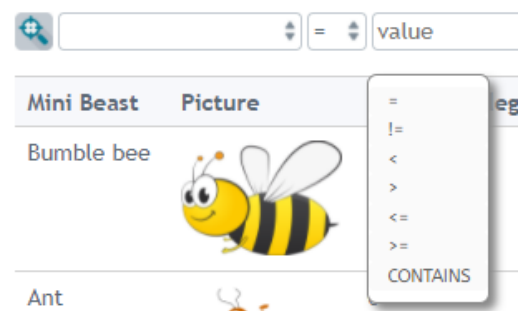
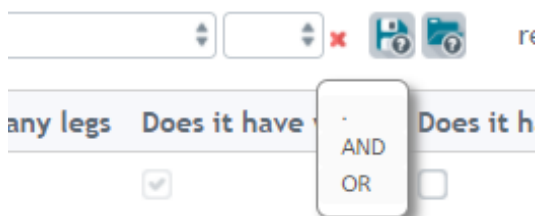
To the right is an example of a database.

You can see the first record with various fields. Below is the table from which it comes from with its rows and columns and values for each.



| Mini Beast | Picture | How many legs | Does it have wings | Does it have a shell |
|------------|---|---------------|-------------------------------------|--------------------------|
| Bumble bee |  | 6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Ant |  | 6 | <input type="checkbox"/> | <input type="checkbox"/> |
| Butterfly |  | 6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

sort and group Use search button and drop down boxes to help sort and group data.



(All images from <https://www.j2e.com/data/examples/minibeasts>)

Online safety / E-safety

Focus on Self-Image and Identity: consider what responsible choices should be made when **sharing things related** to identity online.

Year 5 Spring 2: Video Editing

Computing Focus: Multimedia



What they should know from Years 3, 4 and 5 to have used a camera/video before, used iMovie, including Green screening.

In this unit we will develop our knowledge and skills with videoing and filming using iMovie. For more details go to

<https://support.apple.com/en-gb/guide/imovie-ipad/welcome/ipados>

Or <https://sway.office.com/IS1ZebW7uFo6qYhr>

Key Knowledge, vocabulary and skills

| | |
|-----------------------|---|
| Capture video | Location on the device to record video. Create button -  to create a new movie or trailer project, or tap an existing project to see information about the project and options for editing, playing, and sharing it. |
| |  Play button - To preview a selected template, tap the Play button below the viewer |
| | Hold the device to record in landscape |
| | Press stop/start button to end recording |
| | You can change the volume or speed of a voiceover |
| Transitions | Movement from one piece of media to the next. |
| Trimming Tool | Allows you to shorten or lengthen a photo in your movie. (see below the scissors icon) |
| Put effects on | <p>To apply effects to a section of video or to delete a section of video. iMovie includes effects that can change the way your clips look. If you want a particular look, use a preset filter like B&W (black and white) or Sepia. And for any photos in your iMovie project, you can adjust the Ken Burns effect that sweeps across and zooms in and out on the image.</p> <div data-bbox="317 1599 877 1722" data-label="Image"> </div> <p>Tap a video clip in the timeline to select it. Then tap one of these buttons to apply an effect. Tap the Actions button to show the Ken Burns effect controls in the viewer.</p> |

Online safety / E-safety

Focus on Health Well-being and lifestyle We can describe ways technology can affect healthy sleep and can describe some of the issues.

Year 5 Summer 1: : BBC Micro: bits

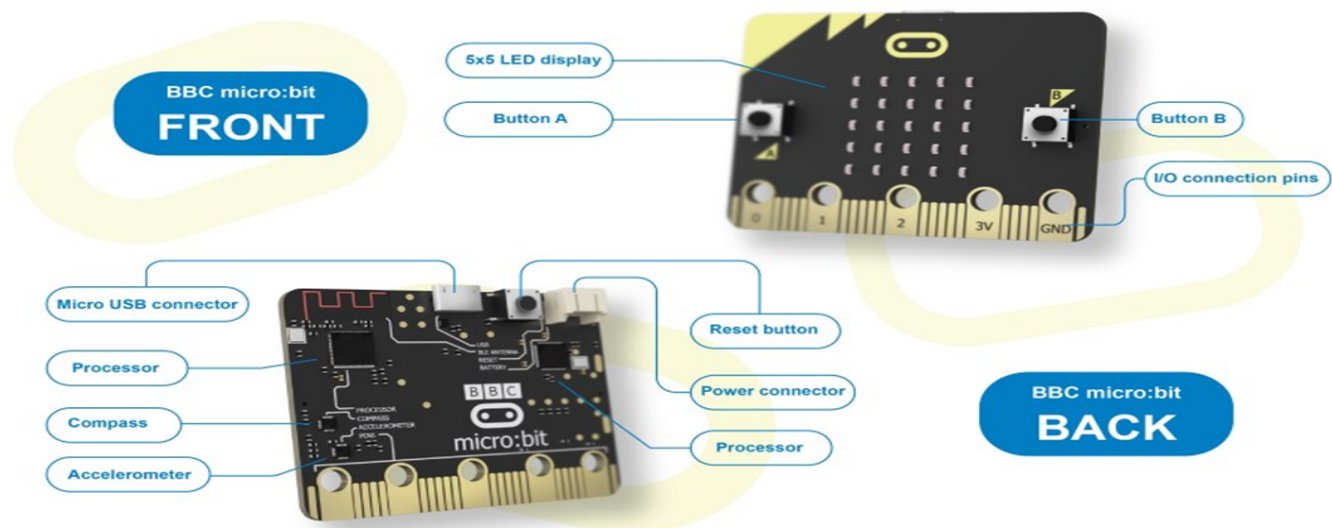
Computing Focus: Computer Science






What they should know from Years 3, 4 and 5 sequence, algorithm, debugging, repetition (loops), selection, variables and decomposition

In this unit we will use sequences, repetition, selection and variables utilising - the micro:bit. We will build and test a number of projects with the micro:bit.

Key Knowledge, vocabulary and skills

| | |
|--------------------------------|---|
| MakeCode | Programming language for the BBC micro:bit (similar to Scratch) |
| flashing programs | The code that is initially created on a website and then clicking on 'download' moves it to the local machine in the form of a .hex file . Flashing occurs when the code is copied to the micro:bit (a device you will see on your computer or iPad). |
| Emulator | Is used to test your program and see how it will appear |
| program flow flow chart | <p>Example of flow chart for shaking the micro:bit using algorithm to the left.</p> <div style="display: flex; align-items: flex-start;"> <div style="flex: 1;"> <p>Program flow</p> <pre> graph TD Shake[Shake] --> Choose[Choose random number] Choose --> 1[1] Choose --> 2[2] 1 --> Yes[Yes] 2 --> No[No] </pre> </div> <div style="flex: 1;"> <p>Algorithm</p> <ol style="list-style-type: none"> 1. When shaken, choose a random number (1 or 2) and save it in answer 2. Check if the answer is 1, say 'Yes' 3. Check if the answer is 2, say 'No' </div> </div> |



| | |
|--|---|
| | |
| |  |
| | <p> Start Block When used, always placed at the beginning of a program string. Press on it to start the program string you have written.</p> <p> Start On Message Block When used, always placed at the beginning of a program string. It will wait for the correct message and then start the program string you have written.</p> |
|  | <p> Repeat Block Use this block to repeat actions. Blocks placed inside the Repeat Block will be looped. This can also be called the "loop block." The loop can be repeated forever, for a certain amount of time, or until something happens.</p> |
| | |
| | |

Online safety / E-safety


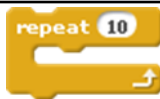


Safer Internet day. Focus on **online reputation** can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect.

Year 5 Summer 2: Introducing variables to create Maths games

Computing Focus: Computer Science

What they should know from Years [3a](#), [3b](#), [4a](#), [4b](#) and [5](#) :sequence, algorithm, bug, debugging, computer program, executing/running a program, repetition loops and decomposition

In this unit we will create a simple Maths game and then one with variables
Key Knowledge, vocabulary and skills

| | |
|--------------------------|--|
| Selection | See autumn 2 |
| Event blocks | These start Scratch to start running a program by setting a triggering moment, e.g. clicking the green flag, pressing the spacebar etc.  |
| repetition: loops | It is a set of actions or events that are repeated either a number of times or forever.   |
| variable | <p>A variable is a changeable value (it can change as the program runs). Variables only hold one value at a time. These values can be either numbers or strings — any text.</p> <p>Variables are found in variable blocks in Scratch, which you create. This enables the computer program to count down the game or score points. To find out more https://www.bbc.co.uk/bitesize/topics/zkcqn39/articles/zw3dwmn</p>  |
| strings | Strings are sequences of letters and numbers |

Online safety / E-safety



Focus on Copyright and ownership: We assess and justify when it is acceptable to use the work of others. And give examples of content that is permitted to be reused and know how this content can be found online.