

Computing Knowledge Planner

Reception

Collecting (working with data)

- I know that computers can collect data.
- I know that data on computers can be used to help me answer questions.

Vocabulary

- data
- information
- tally
- pictograms

Controlling (algorithms, programming and development)

- I know a Beebot needs instructions to work.
- I know a Beebot follows instructions.
- I know how to give a Beebot a simple instruction.

Vocabulary

- code
- instructions
- forwards
- backwards
- left
- right

Communicating Safely (E-Safely)

- I know that we need to be safe when using technology.
- I know to tell an adult when I am worried about something online.

Vocabulary

- staying safe
- online
- e-safety
- website
- internet

Communicating (Using ICT)

- I know that IT can be used for a number of tasks.
- I know some uses for IT outside of school.
- I know what the keyboard and mouse does.

Vocabulary

- input
- output
- keyboard
- mouse

Year 1

Collecting (working with data)

- I know what Microsoft Word can be used for.
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Vocabulary

- save
- copy
- paste
- keyboard

Controlling (algorithms, programming and development)

- I know that algorithms are instructions
- I know some programmes (or robots) that I can give instructions to.

Vocabulary

- input
- output
- instructions
- data
- forwards
- backwards
- left
- right
- value

Communicating Safely (E-Safely)

- I know that we need to be safe when using technology.
- I know what to do if I see something that upsets or worries me.
- I know that some websites are linked.
- I know to keep personal information to myself.

Vocabulary

- personal information
- website
- hyperlink (links)
- click
- internet

Communicating (Using ICT)

- I know what the 'save, copy and paste' icons look like.
- I know what a hyperlink does.
- I know that the internet can search for things.
- I know what the 'open, close and minimise' icons look like.

Vocabulary

- save
- copy
- paste
- keyboard
- open
- close
- minimise
- maximise

Year 2

Collecting (working with data)

- I know that there are different types of data e.g. numbers and information/facts (words).
- I know the difference between data and information.
- I know that a spreadsheet can collect data.

Vocabulary

- Microsoft Excel
- Spreadsheet
- data
- information

Controlling (algorithms, programming and development)

- I know that algorithms/instructions make programmes.
- I know that debug means to correct mistakes/errors.

Vocabulary

- debug
- algorithm
- error
- correct
- instructions
- programme

Communicating Safely (E-Safely)

- I know that we need to be safe when using technology.
- I know what to do if I see something that upsets or worries me.
- I know that some websites are linked.
- I know to keep personal information to myself.
- I know that online communications are not always private.
- I know communications online can be seen by others.
- I know that information displayed online cannot always be trusted.
- I know that anybody can create a website.

Vocabulary

- personal information
- website
- hyperlink (links)
- click
- internet

Communicating (Using ICT)

- I know what it means to log in and log out.
- I know the mouse controls the cursor.
- I know a font is a style of lettering.
- I know a stop-frame animation is made up of a series of photographs.

Vocabulary

- log in
- log out
- mouse
- font
- animation
- cursor

Collecting (working with data)

- I know that Excel can create graphs.
- I know that a database stores data.

Vocabulary

- Microsoft Excel
- Spreadsheet
- data
- information
- database

Controlling (algorithms, programming and development)

- I know a loop can repeat instructions.
- I know a variable can change how an algorithm works e.g. IF, THEN etc.
- I know that IF, THEN and ELSE statements can be used in programming.

Vocabulary

- algorithm
- instructions
- programme
- variable
- loop
- If, then, else

Communicating Safely (E-Safely)

- I know when an e-mail should not be opened.
- I know the SMART rules for e-safety.
- I know how to report something upsetting or inappropriate online.
- I know that there are facts and opinions online.

Vocabulary

- E-mail
- SMART rules
- report
- fact
- opinion
- content
- online
- inappropriate

Communicating (Using ICT)

- I know what the spacebar, enter, delete and backspace keys do.
- I know what the cut and paste buttons look like.
- I know that the red and blue lines show that there are mistakes in my typing.
- I know where to find the spellchecker when typing.

Vocabulary

- spacebar
- enter
- backspace
- delete
- spellchecker
- cut
- paste

Collecting (working with data)

- I know ways to improve my searching when online.
- I know what a database can be used for.

Vocabulary

- Microsoft Excel
- Spreadsheet
- data
- information
- database
- online search engine

Controlling (algorithms, programming and development)

- I know that some tasks are more efficient when completed by humans than by computers and vice-versa.
- I know that a procedure can be used to hide details in programmes.
- I know that conditions are only carried out under certain circumstances to change an algorithm.
- I know a variable can change how an algorithm works e.g. IF, THEN etc.
- I know that IF, THEN and ELSE statements can be used in programming.
- I know that debugging is used to edit and improve an algorithm in order to make it act in the expected way.

Vocabulary

- algorithm
- instructions
- programme
- variable
- conditions
- debugging
- if, then, else

Communicating Safely (E-Safely)

- I know when an e-mail should not be opened.
- I know the SMART rules for e-safety.
- I know how to report something upsetting or inappropriate online.
- I know that there are facts and opinions online.

Vocabulary

- E-mail
- SMART rules
- report
- fact
- opinion
- content
- online
- inappropriate

Communicating (Using ICT)

- I know what replying and forwarding means when using e-mails.
- I know the appearance of the crop button.
- I know the crop function allows me to cut out parts of an image that are not required.

Vocabulary

- reply
- e-mail
- forward
- crop
- picture

Collecting (working with data)

- I know formulae can be used to calculate data for an output.
- I know SUM adds the values of a range of cells.
- I know that = must be used at the start of every formulae.

Vocabulary

- Microsoft Excel
- Spreadsheet
- data
- information
- database
- formulae
- SUM

Controlling (algorithms, programming and development)

- I know that there are several solutions to the same problem when coding.
- I know when it is appropriate to use debugging.
- I know that algorithms exist for different functions.

Vocabulary

- algorithm
- instructions
- programme
- variable
- conditions
- debugging
- if, then, else

Communicating Safely (E-Safely)

- I know what the impact of sending or uploading inappropriate material would be.
- I know that scams and fraud exist online and what to do if I believe I come across one online.
- I know that companies sell things on the internet.
- I know that keeping personal information private is important and that people may take advantage of it if they obtain it from me.

Vocabulary

- companies
- online
- private
- personal information
- extortion
- scam
- fraud

Communicating (Using ICT)

- I know that presentations should consider its audience.
- I know that transitions are used to improve the user experience between slides.
- I know what import and export mean and do.
- I know what advanced search can do.

Vocabulary

- transitions
- import
- export
- animations
- slides
- PowerPoint
- Presentation
- Google
- search engine
- advanced searing

Collecting (working with data)

- I know formulae can be used to solve problems with data.
- I know what binary is and what it is used for.
- I know that computers transfer data into code.

Vocabulary

- formula
- binary
- transfer
- data

Controlling (algorithms, programming and development)

- I know when a repeat loop is appropriate.
- I know a range of sensing tools.
- I know that reasoning can be used to help me debug a programme that does not work.
- I know when to use complex variables and conditions.

Vocabulary

- variables
- conditions
- reasoning
- repeats
- loops

Communicating Safely (E-Safely)

- I know what the impact of sending or uploading inappropriate material would be.
- I know that scams and fraud exist online and what to do if I believe I come across one online.
- I know that companies sell things on the internet.
- I know that keeping personal information private is important and that people may take advantage of it if they obtain it from me.
- I know that things like grooming exist online.
- I know that the validity/credibility of a website can be checked.
- I know what a virus can do to a computer.
- I know how to change my privacy settings on social media.

Vocabulary

- companies
- online
- private
- personal information
- extortion
- scam
- fraud
- grooming
- validity
- virus

Communicating (Using ICT)

- I know what the appropriate style for a presentation should be, depending upon its audience.
- I know which apps/software programmes are most suitable for a specific task.
- I know what merging means when using tables.
- I know that formatting can change the appearance of a document.

Vocabulary

- formatting
- merging
- applications
- programmes
- software
- document
- presentation