

Golden Thread	Definition
<b>Computing systems and networks</b>	The use of information technology around us and what happens 'behind the scenes' to produce what we see.
<b>Programming</b>	The designing, writing and debugging of algorithms to create a specific goal.
<i>Algorithms</i>	<i>A set of instructions for a system to follow that leads to a desired outcome.</i>
<b>Creating media</b>	The development of any media, written and digital forms, from development through to final visual outcome.
<b>Data and information</b>	Collecting data and inputting it into a system to create a numerical based outcome, primarily a graph, showcasing the results gathered.
<b>Workplace skills</b>	Developing the skills needed to survive in a digital workplace, with a focus on the use of typing, saving and printing documents.



# Computing

# Computing systems and networks

## Definition

The use of information technology around us and what happens 'behind the scenes' to produce what we see.

### What technology is around me?

Explain the function of the technology they come in contact with regularly in the home and at school.

### How does information technology help the world around us?

Define information technology and look at examples of IT we see in the world around us.

### How does the internet work?

Recap learning on a network, then understand how routers work and are used to join networks together.

### How can we optimise our use of the internet and digital communication?

Be introduced to Tim Berners Lee, explore how the internet works with a specific focus on search engines and how the results appear - why do those with advertising appear before others?

EYFS

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

### How do I use the technology around me?

Identify technology in our homes/schools and the key components of a computer. Then, try to log onto a computer using these components.

### How are computers connected?

Understand concept of inputs and outputs in digital and non-digital devices. Then, learn how computers are connected using networks and networks are connected to make the internet.

### How do computers share information?

Define what a system is and how computers communicate through the internet using routers, protocols and IP addresses.



## Definition

The designing, writing and debugging of algorithms to create a specific goal.

### What is a BeeBot?

Explore what a BeeBot is and what it can do. Use directional language to program an instruction.

### How do I programme a quiz on ScratchJr?

Introduce Scratch Jr, explore outcomes and how to design a programme. Then, create binary questions with specific outcomes.

### Why are some computer shapes more intricate than others?

Use J2Code to draw letters and shapes, then learn how to repeat the command to create a pattern.

### How are controllable devices used?

Design and develop a program, using conditional statements, to create an outcome on a controllable device (Microbits).

EYFS

Year 1

Year 2

Year 3

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Year 6

### Can I move a robot?

Introduce concept of programming using BeeBots. Begin giving simple instructions using directions, then link multiple directions together to form a sequence.

### How to programme a musical performance?

Introduce Scratch, and explore the differences to Scratch Jr. Then, use knowledge of sprites and sequencing to create sound instructions that combine for a performance.

### How do I write a program that asks questions?

Introduce conditional programming blocks within Scratch that have a binary answer, then apply the knowledge to create a quiz.

Definition	The development of any media, written and digital forms, from development through to final visual outcome.
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## How do I publish my work?

Use Adobe express, and typing skills, to create a poster/leaflet for a specific purpose using a template.

EYFS

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

## How do I put text on the computer screen?

Find the keys on the keyboard and practise using them to type into a word document. Then, learn how to navigate the toolbar at the top. Children apply all their learning to type their own sentence, making choices about font, size, colour, etc.

## How do I create a video?

Explore the history of videos, their purpose and how videos are created using a variety of factors: camera angles, lighting and audio. Apply knowledge to create their own video.



# Computing

# Data and information

## Definition

Collecting data and inputting it into a system to create a numerical based outcome, primarily a graph, showcasing the results gathered.

How can I use technology to collect and analyse data?  
Recap collecting and gathering data, design and conduct an investigation using data loggers.

Can I plan and cost an event?  
Inputting figures and data into a spreadsheet. Then, using formulas to collate the information and present data in the form of pie charts.

EYFS

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

How can I represent data on a computer?

Learn what an attribute is and how to sort data based on attributes. Then, collect data for an attribute, input it into J2Data to create a pictogram.





## Definition

Developing the skills needed to survive in a digital workplace, with a focus on the use of typing, saving and printing documents.

### What happens when I press a button?

Press buttons on a keyboard and see it appear on the screen.  
Press buttons in a sequence to spell their name.

### How to I retrieve my work?

Reminder of how to use word typing on a computer, then learn how to save and print a document.

### Can I create a powerpoint presentation?

Recap knowledge about word typing and apply to a powerpoint slide. Then, add further slides, design and start to add animations.

### Can I plan and cost an event?

Introduce spreadsheets to learners, explain how the document type can be navigated and used, then use their learning to apply to an event planning project.

EYFS

Year 1

Year 2

Year 3

Year 4

Year 5

Year 6

### How do I put text on the computer screen?

Identify and find the keys on the keyboard and practise using the keys to type into a word document.  
Then, learn how to navigate the toolbar at the top.

### How do I publish my work?

Initially, recap their learning of adding/changing text and saving/printing a word document. Then, learn to add pictures/tables to the document. Use that knowledge in *Adobe express*.

### Can I create a powerpoint quiz?

Make a non-linear presentation by adding hyperlinks to a slide that, when clicked, takes you to a different slide. Use this to create a quiz.

