Computational Thinking

Year 6

Knowing More, Remembering More: previous learning

What is a computer network? A group of connected computers and devices that can communicate and share information.
What is an input? An input is information or data sent into a computer or system.
What is an output? An output is information produced by a computer or system.
What is a computer program? A set of instructions that tells a computer what to do.
What is an algorithm? A set of step-by-step instructions for solving a problem or completing a task.
What is a variable in a computer program? A place in a program where a value or piece of information can be stored and changed.
What is repetition in programming? Repetition means making a computer carry out the same instructions more than once.

In this unit children will:

- Design, write and debug programs that accomplish specific goals
- Use sequence, selection, and repetition in programs; work with variables
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Working Scientifically:

CS6.1	I can write precise algorithms for use when programming
CS6.2	I can recognise, and make use of, patterns across programming projects.
CS6.3	I can decompose code into sections for effective debugging
CS6.4	I can critically evaluate my work and suggest improvements.
CS6.5	I can identify variables needed and their use in selection

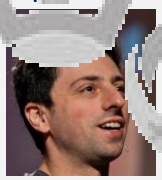
Key Vocabulary:

- Design
- Write
- Decode
- Debug
- variable
- changes
- independent variable
- dependent variable
- program

Key Learning Steps:

1. Introducing variables
2. Variables in programming
3. Improving a game
4. Design a game
5. Design to code
6. Improving and sharing

Inspirational figures:



Sergey Brin (1973 -)
Co-founder of Google



Susan Wojcicki (1968-2024)
CEO of Youtube

Knowing More, Remembering More in Y6

What is a search engine? A service that searches the internet for information and provides results that match a search query.
Why might two people get different results when using a search engine? Search results can be influenced by factors such as the words used in the search, the search engine's ranking system and information about the user.
What is a hyperlink? A link that allows a user to move from one webpage or digital resource to another.
What is a variable and why is it useful in a program? A variable stores a value that can change while a program is running. It allows a program to remember and use changing information.
What is selection in programming? It allows a program to make a decision and choose what to do

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