Year 6 Computing Knowledge Organiser

Algorithms and Programming

1. Algorithm – A list of steps that you can follow to finish a task.
2. Conditionals – Statements that only run under certain conditions.
3. Loop – The action of doing something over and over again.
4. Event - Tells your program to "listen" for something to happen and then react right away
5. Decomposing- Breaking a problem into parts and then solving the parts separately
6. Debug – Finding and fixing problems in your algorithm or program.
7. Code – To write code, or to write instructions for a computer.
8. Program – An algorithm that has been coded into something that can be run by a machine.

9. Conditionals

These things can only happen if certain conditions are met. For example, this condition means that **if** a player draws a red card, **then** they get a point. **If** the card is higher than 9, **then** the other team gets a point.

If (CARD is RED)
    Award YOUR team 1 point
Else
    If (CARD is higher than 9)
        Award OTHER team 1 point
    Else
        Award YOUR team the same number of points on the card

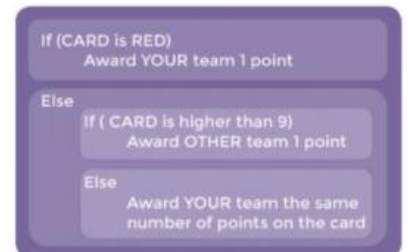These can also be called "**if __ then ___**" statements.

10. Computational Thinking

Computational thinking involves looking at a problem and working out a way a computer might be able to help you solve it. To do this, you need to understand how a computer **processes information**.
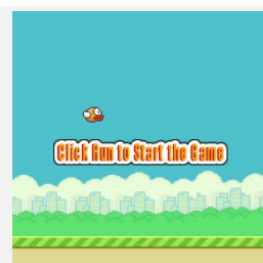
You probably use computational thinking at school too, but don't realise it. If you analyse a problem and plan out the solutions, you are using computational thinking.