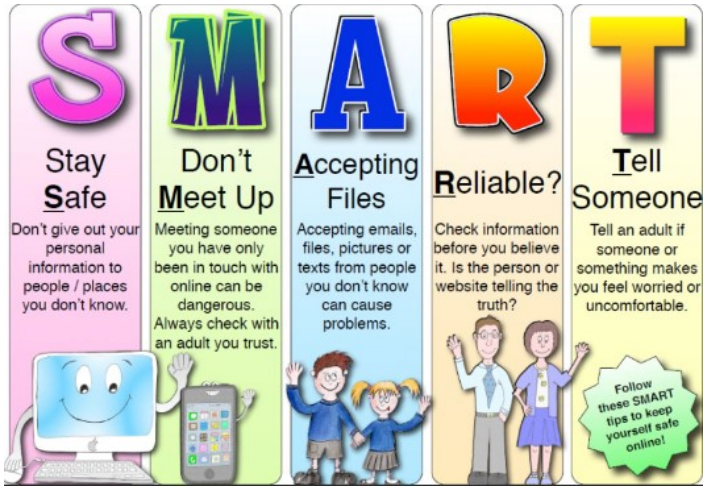
Swans

Computing

Spring 1

Programming



Key Vocabulary	Definition
algorithm	A set of instructions for solving a problem or completing a task.
chunking	Divide something into chunks.
debugging	The process of removing errors from a computer.
design	A plan produced to show the functions of an object.
direction	A course along which someone or something moves.
error	An action which is inaccurate or incorrect .
obstacle	A thing that blocks one's way or prevents or hinders progress.
robot	A machine capable of carrying out a complex series of actions automatically.
route	A way or course taken in getting from a starting point to a destination.
programming	Writing code to create software, apps, or websites
sequencing	Arrange in a particular order.

Robots

Robots have a computer inside them; Robots do what we want because they follow instructions. They do not make any choices themselves.

Algorithms

We use algorithms to help robots do things that we want them to do. It is a set of rules which are followed by computer. We can design an algorithm to help a robot move from one place to another following a specific route. When designing an algorithm it is important to carefully consider the start point and the end point that we want to robot to reach.

Bee-Bots

A bee-bot is a small robot designed for children to learn new skills like creating algorithms, teaching sequencing, estimation, problem-solving and programming. The buttons on top are used to give the robot directions telling it which way to go.

Errors

There are different ways which errors might occur when working with robots -

Sequencing errors: This is where an instruction in the sequence is wrong or is in the wrong place

Keying errors: Typing in the wrong code

Logical errors: Mistakes which are made in the planning or thinking

End of Unit: Programming A

What is an algorithm?

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Why is it important to clear a previous algorithm?

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What are the different errors that can be made when working with robots?

1. ……
2. ……
3. ……