

Year 4 Red Kites Computing Spring 1

Programming- Repetition in Shapes

| | Key Vocabulary | Definition |
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| e-safety | block | To block someone from contacting a user on a social media account for example. |
| | cyberbullying | The use of electronic communication to bully someone. |
| | e-safety | Staying safe when communicating on-line. |
| | hack | Gaining unauthorised access to another system or data. |
| | online identity | Whenever you use a social network, text or post on-line, you are adding to your online identity. |
| Programming | algorithm | An ordered set of precise instructions. |
| | code | Using a set of instructions to communicate with computers. |
| | command | A single, simple instruction that a coder can give to a computer. |
| | counter-controlled loop | Used to make a computer do the same things a specific number of times. |
| | degrees | The size of angles in shapes. |
| | debugging | Working out issues with a program. |
| | decomposition | Breaking instructions down. |
| | logo | A language that makes it easy for children to learn programming. |
| | pattern | A design using repeated shapes. |
| | procedure | A section of computer code that performs a specific task. |
| | program | A series of instructions that tell a computer to perform an action. |
| | repeated | To do or say something again. |
| | sequence | A basic algorithm. |
| turtle | An imaginary pen that is given drawing commands, such as go forwards and turn right. | |

Algorithms

Algorithm's need to be very clear and you can use these instructions to create a code for the computer to understand.



Decomposition in Programming

When we think about what we need to program, we can also decompose our task into smaller parts. For example, when planning how to draw a hexagon, we can break it down into these parts:

- 1) Clear the screen
- 2) Go forwards 100
- 3) Turn right 60 degrees
- 4) Repeat steps 2 and 3 six times.

Patterns

A repeated pattern is a pattern that occurs more than once. Algorithm's can be repeated to create a pattern.

