Risk in ICT

Progress involves exposing ourselves to, and considering the impact of, forms of danger, harm, uncertainty or opportunity.

Knowledge Harvest:

Students will spend one lesson completing a carousel of problem-solving activities

Students will then identify different support methods and strategies to solve problems.

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1. Key Question:
What is encryption?

Skill Development: Students will be able to connect their own and others ideas in inventive ways to find solutions.

Project Outline: Students to use a range of ciphers to decrypt hidden messages.

Project exit point: Solution to problem.

Suggested duration: 1lesson

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2. Key Question:
Using algorithms to plan solutions to different problems

Skill Development: Students will gather and understand information independently to solve complex problems.

Project Outline: Students will use commands and functions to instruct the bots to perform a task.

Project exit point: Solution to problem and final level.

Suggested duration: 2 lessons

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3. Key Question:
Using problem-solving skills

Skill Development: Students are able to try out alternatives and adapt ideas as circumstances change.

Project Outline: Consolidation of existing skills.

Project exit point: Hour of code final lesson.

Suggested duration: 1 lesson

Key Skills Development

Literacy
Keywords— command, function, solution, algorithm, encryption, cipher, repeat, instruction, efficient, modify

Numeracy
N/A

ICT
Aspects of computer science

Soft skills
planning, problem-solving, communication, analysis

Analytical thinker

I confidently ask questions to deepen my understanding and challenge assumptions.
I can independently explore issues, events or problems from lots of different viewpoints in detail.
I can gather and understand information independently to solve complex problems and make decisions.
I can independently analyse information critically and judge how valuable or relevant it is.

Creative INITIATOR

I am able to think creatively by generating and exploring a range of different ideas.
I am able to ask challenging questions to extend my thinking and question assumptions.
I am able to connect my own and others ideas in inventive ways to find solutions.
I am able to try out alternatives and adapt ideas as circumstances changes

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Exit Point:

An Excelling ICT LEARNER can...

- Prove you are can solve a range of problems independently.
- Design appropriate solutions to a range of problems.
- Modify solutions to make them more efficient.