

Knowledge Organiser

Year: 5
Summer 1



Why is the World So Angry?

We Are Toy Designers

Useful Websites

- <https://scratch.mit.edu/>
- <https://code.org/>
- <https://www.bbc.co.uk/bitesize/topics/zf2f9j6/articles/zx8h-pv4>

What will I know about being a Toy Designer by the end this Unit?

- That there are different forms of input and output (such as sensors, switches, motors, lights and speakers)
- **How to design and make an on-screen prototype of a computer-controlled toy using Scratch**
- Use a sequence of instructions, including if/then/ else (selection) and repeat ... until (repetition), and variables.
- **Use logical reasoning to debug any mistakes or errors.**
- Pitch Dragons' Den-style, their computer controlled toy.

Key Vocabulary

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|--------------------|--|
| Algorithm | - a set of rules (instructions) to be followed in problem-solving operations, especially by a computer. |
| Debug | to identify and remove errors from (computer hardware or software). |
| Interactive | software which accepts and responds to input from people |
| Input | data a computer receives from different devices. |
| Output | data a computer sends out to different devices. |
| Pitch | words used when trying to persuade someone to buy or accept something. |
| Prototype | a working model of a product or information system, usually built for demonstration purposes |
| Simulation | the process of mathematical modelling, performed on a computer, which is designed to predict behaviour or outcome. |
| Variable | a piece of computer memory, containing some information inside. |

