KS2 – DT – Programming Adventures – Knowledge Organiser

Assessment of Key Skills

...**all** children should be able to:

- understand how a floor robot moves;
- program it accurately to move along a given route;
- explore and select from a range of different materials to create obstacle squares.

...**most** children will be able to:

- generate ideas for an adventure map and appropriate obstacles matching their overall theme;
- evaluate adventure maps against design criteria independently;
- explain the best joining methods based on their knowledge of the properties of materials.

...**some** children will be able to:

- explain why floor robots move differently on different materials using their knowledge of the properties of materials;
- evaluate the effectiveness of different materials and suggest improvements based on observations.

I can programme and control floor robots.
I can generate and develop ideas through discussion
I can research a range of materials
I can plan an adventure map
I can use appropriate materials based on research
I can monitor a floor robot

Floor Robots

Making a Map

Robot programming refers to the **process of developing a control scheme for how a machine interacts with its environment and achieve its goals**. It usually requires a basic knowledge of mathematics and a programming language.