

OBHS Core Questions:


Subject: Design & Technology

Year and Term: Year 7 Autumn term

Topic: Crazy creature and Programming



Learn these questions to build a strong foundation of knowledge for this half-term. Ask family or friends to test you regularly, or practise on your own using the 'Look, Say, Cover, Write' method.

	Question	Answer
1.	Name a smart material which changes its shape in response to heat.	Polymorph
2.	Which smart material was used to make the crazy creature key ring.	Polymorph
3.	List ways that a smart material reacts with the environment. E.g Pressure	Pressure, heat, light
4.	Can you identify the smart material which changes in response to pressure?	Quantum tunnel composite
5.	A baby's feeding spoon is made of a thermo forming polymer. How does this change if the food is too hot?	Changes colour
6.	Which material is used to insulate takeaway food when in an aluminium container?	Foil lined board
7.	Which board is commonly used to make food packaging?	Duplex board
8.	What do we call paper that is made directly from wood pulp and not recycled paper?	Virgin paper
9.	Which paper do architects use to correct sketches over blue prints?	Layout paper
10.	Which is the smallest size of paper?	A6
11.	Are LED's a type of Input or output?	Output
12.	Which type of cable do we use to transfer data from the computer to the robot?	USB
13.	Name 3 types of programming language	Block, text based and flowchart
14.	What device do we need in our robots to program them?	Microcontrollers
15.	If a product is made using only robots, we say the production line is what?	Automated
16.	A robot needs which 3 things in order to work?	Body, control, behaviour
17.	A series of instructions written down to solve a problem is called a what?	Algorithm
18.	Writing an algorithm as a set of instructions is called what?	Pseudocode
19.	Is a motor an input or an output?	Output
20.	Is a lamp an input or an output?	Output
21.	What 3 things can a microcontroller do?	Count, time, Compare
22.	Inputs, process and outputs are part of the robot's what?	Control
23.	A diamond symbol in a flow chart is known as a what?	Decision
24.	A rectangle symbol in a flowchart is known as what?	Process
25.	What do you need in order to make a circuit work?	Energy/ electricity
26.	Draw the symbol for a 'process' in a flow chart.	
27.	Which software did we use to design our program?	Microbits
28.	Which type of programming language does Microbits use?	Block based
29.	Is a buggy a robot?	Yes
30.	Is an oven a robot?	No