

Overview Year 7 – Jigsaw puzzle

No	Date	Teaching and Learning Activity	Homework	Marked/levelled work
1		To develop a key ring cut out from acrylic.		
2		Understand health and safety and create an ink monster.	Health and safety sheet to be signed and mood board on Flanimals.	Marked piece: Mood board Flanimals homework
3		To create 4 different monster designs	Research Biomimicry.	
4		Develop a background for their monster.		
5		Understand how to draw in isometric and create a final design.		Levelled piece: final design
6		Understand how to transfer a design correctly onto wood.		
7		Understand how to use the fret saw correctly and cut out their design.		
8		Develop hand tool skills and produce a lap-joint.		
9		To fabricate their puzzle box together.		
10		To understand the molecular structure of plastic and understand how to use the vacuum former correctly.		
11		To understand the use of some smart materials and to understand how to file correctly.		
12		To develop an understanding of the colour wheel and to develop a design for their box.		
13		To develop a lid for their box.		
14		To develop skills on 2D design and understand CAD/CAM.	To research CAM/CAM, look for different machines and programs.	

15		To develop 2D design skills further.		Levelled piece: Final practical product.
16		To understand how to create a booklet.	Finish the booklet at home.	
17		To develop evaluation skills.		
18		End of unit test.		Marked work: final exam

Overview Year 8 – Pinball machine

No	Date	Teaching and Learning Activity	Homework	Marked and Levelled pieces
1		To develop a box using finger joints.		
2		Understand what is meant by a design brief, develop a theme for their pinball machine and to understand different properties of wood.	Health and safety sheet to be signed and mood board on their chosen theme.	Marked piece: mood board homework on themes.
3		To create 4 different designs on their chosen theme.		
4		Understand how to draw in isometric and create a final design.	Finish their final design for homework.	Levelled piece: Final design.
5		To understand how different mechanisms work and produce a design for the mechanism in their pinball machine.		
6		To produce a card model and to understand how to use the fret saw correctly.		
7		To mark out their pinball machine correctly and to start to cut their pieces out.		
8		To understand how to create finger joints.	To research different joining methods for wood and metal.	
9		To develop their finger joints further.		
10		To understand how to use the pillar drill and continue to develop their pinball machine.		
11		To develop their pushers.	Research electronics that embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example,	

			microcontrollers].	
12		To fabricate their pinball machine together.		
13		To develop the design of their playing field, by creating stoppers.		
14		To develop the design on their pinball machine.		
15		To enhance the design on their machine.		
16		To add legs to their pinball machine.		Levelled piece: final product.
17		To develop evaluation skills.		
18		End of unit test.		Marked piece: End of unit test.

Overview Year 9 – MP3 Speakers

No	Date	Teaching and Learning Activity	Homework	Levelled and Marked work
1		To create an inset in a piece of acrylic.		
2		To create a design brief and task analysis.	Health and safety sheet to be signed and collect images of existing MP3 speakers.	
3		To develop a questionnaire on users' needs and a product analysis.	To ask 10 people their questionnaire.	
4		To recognise the properties of different materials and joints. To understand the implications of technology push and market pull.	Research materials and their processes, 3 plastic and 3 metal.	Marked piece: research.
5		To develop initial ideas.		
6		To produce a final design and develop it.	Finish design for homework.	Levelled piece: final design.
7		To understand how to make finger joints.		
8		To understand how to create finger joints.		
9		To develop their finger joints further.		
10		To understand how to use the pillar drill, using a hole saw and continue to develop their speakers.		
11		To understand the different finishes that can be applied to wood and develop a design on their box.		
12		To recognise the difference when drilling different materials. To develop a surface finish.		
13		To re-address an inset in a piece of acrylic for the front of their speaker.		

14		To recognise the different electrical components and their use. To develop their PCB.		
15		To understand how to solder, to understand the difference between polarised and non-polarised. To understand how to attach fly wires correctly.	To create a booklet that is on moral and ethics in a Resistant Materials classroom.	Levelled piece: final product.
16		To complete their speaker and be self-reliant.		
17		To develop evaluation skills.		
18		End of unit test.		Marked piece: End of unit test.