

RESISTANT MATERIALS YEAR 7

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| Learning objective | How to behave and use equipment safely | How to mark out accurately. How to form a Cam mechanism How to safely use a coping saw and files to shape a piece of material. | To use basic 2D design tools to create basic simple shapes and how these basic shapes can be drawn more accurate. To be more creative with basic shapes by adding in more shapes, changing the grid, adding in colours and text. To use 2D design creatively to create even more complex forms / shapes. | |
| Learning outcome | You are able to come up with a range of safety rules when in a work shop and be able to identify safety rules that apply to pieces of workshop equipment. | You are able to use a ruler and tri square to mark out accurately. You are able to use dowel to form a Cam mechanism. You are able to use a coping saw and files to shape your character. | You are able to explain the simple 2D design tools and what they do and explain how your drawings can be drawn neatly and accurately. you are able to explain how colour and text can be added to your drawings. You are able to vectorise an image and form a keyfob design. | |
| Descriptors | Exceptional | Exceptional Have demonstrated precise understanding of how to behave and move around a workshop and shown full understanding of how to use the disk sander and pillar drill safely using and naming all the correct equipment. | Exceptional You are able to come up with ten different ideas using a range of shapes, line, circle, arc, path tools, contour tool and vectorising tool, different text tools and use of more complex fills tools (gradients, textures). All line colours have been correctly used (red for cut, blue for engrave and black for etch) and the drawing is the right size (50 x 75mm). | |
| | Good | Good Have demonstrated clear understanding of how to behave and move around a workshop and shown full understanding of how to use the disk sander and pillar drill safely using and naming some of the correct equipment. | Good You are able to come up with seven different ideas using a range of shapes, line, circle, arc, path tools, contour tool and vectorising tool, different text tools and use of more complex fills tools (gradients). All line colours have been correctly used (red for cut, blue for engrave and black for etch) and the drawing is the right size (50 x 75mm). | |
| | Developing | Developing Have demonstrated basic understanding of how to behave and move around a workshop and shown basic understanding of how to use the disk sander and pillar drill safely. | Developing You are able to come up with seven different ideas using a range of shapes, line, circle, contour tool, text tools and use of simple block fills. All line colours have been correctly used (red for cut, blue for engrave and black for etch) and the drawing is a suitable size. | Developing All pieces have been cut within 2mm, all pieces have been positioned somewhat accurately, some surfaces are flush. The mechanism rotates with some sideways movement, the Cam and wheel turn with a handle that has been cut. The character and background scene have been cut out and are recognisable with some edges smooth. |
| | Foundation | Foundation Have demonstrated basic understanding of how to behave and move around a workshop and shown basic understanding of how to use the disk sander and pillar drill safely. | Foundation You are able to come up with five different ideas using simple shapes, line, circle, text tool and use of simple block fills. Some line colours have been correctly used (red for cut and blue for engrave) and the drawing is a suitable size. | Foundation Pieces have been cut, pieces have been positioned, surfaces don't line up and are not flush . The mechanism has some motion with sideways movement, the Cam and wheel turn with a roughly cut handle. The character and background scene have been cut out. |