| Subject | Design and Technology | Year Group: 7 | 7 |
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| | **Half of Carousel rotation - Approx 6-7 weeks** | **Half of Carousel rotation - Approx 6-7 weeks** | |
| **Scheme title** | **D&T Materials - Using timbers to make a picture frame** | **D&T Textiles - Using fibres to make a hat** | |
| **Purpose of scheme** | The purpose of this scheme is to introduce pupils to the secondary school workshop environment. This includes learning how to remain safe and keep others safe, and how to use selected pieces of machinery and handtools safely. Pupils need to feel safe in order to build their confidence and accuracey, in a subject which some pupils may have very little experience in. This scheme will introduce pupils to the 'project style learning' undertaken and the key assessment pieces, which will remain the same in year 8 and 9 also. For this project we have selected timber as our focus material, meaning pupils will be given the opportunity to experience the working properties of timber, and produce a useful product which they'll be able to ake home. In addition to the working properties, pupils will also learning the theortical properties of the selected material. | The purpose of this scheme is to introduce pupils to the secondary school textiles workshop environment. This includes learning how to remain safe and keep others safe, and how to use select pieces of machinery and handtools safely. Pupils need to feel safe in order to build their confidence and accuracey, in a subject which some pupils may have very little experience with. This scheme will introduce pupils to the 'project style learning' undertaken and the key assessment pieces, which will remain the same in year 8 and 9 also. For this project we have selected textiles as our focus material, meaning pupils will be given the opportunity to experience the working properties of textiles, and produce a useful product which they'll be able to take home. In addition to the working properties, pupils will also learning the theortical properties of the selected material. | |
| **Knowledge in sequence** | Pupils will learn about the raw source of the chosen material. They will learn how it is extracted and processed and the variety of different types used. They will also learn about the environemtal impact of using timber as a material, including terms such as sustainability and deforestation. Pupils will learn about general workshop safety and how to use each particualr tool and machine safely and which and when PPE is required. Pupils will then learn how to cut and use lap joints as a joining method, understanding the importance of accuracey. In addition pupils will learn how a vacuum former works and how to design drawings for the laser cutter. Pupils will learn the importance of and how to keep log of practical work through a manufacturing diary and learn how to reflect of manufacturing through product evaluation. | Pupils will learn about the raw source of the chosen material. They will learn how it is gathered and processed and the variety of different types produced. They will also learn about the environemtal impact of using synthetic fibres as a material, including terms such as sustainability. Pupils will learn about general workshop safety and how to use each particualr tool and machine safely. Pupils will then learn how to cut fabric and produce seams, inorder to understanding the importance of accuracey. Pupils will learn the importance of and how to keep log of practical work through a manufacturing diary and learn how to reflect of manufacturing through product evaluation. | |
| **Skills** | In no particular order, pupils will learn the following skills; Measuring and cutting wood accurately, measuring carving out a lap joint, using masking tape to clamp wood when glueing, using a pillar drill, using 2Design, problem solving, and analylitical skills. | In no particular order, pupils will learn the following skills; Safe use of the fabric shears, pins and seam strippers. Measuring and cutting fabric accurately, cutting then positioning appliques pieces, develop commitent skills with the sewing machine, problem solving, and analylitical skills. | |
| **Key words** | Timber, sustainability, hardwood, softwood, manufactured board, lap joint, tenon saw, bench hook, tri square, CAD/CAM, Evaluation, Manufacturing, Evergreen, PPE | Textiles, Fibres, Sustainability, Cellulose, Protein, Synthetic, Seam allowance, Seam, Applique, Shears, Client, Evaluation, Manufacturing, | |
| **End point** | By the end of this project, pupils should know the basic safety rules when working in the school workshop. They should know the different categories of timber and be able to identify some individual types. Pupils whould be able to independently use the tools and machines related to the scheme. Pupils will recognise the impotance of computers when using CAD/CAM and have a basic understand of how 2D design is navigated and programmed. Pupil will be more confident in a secondary D&T practical setting which will contribute majorly to their development for the rest of the Key stage. | By the end of this project, pupils should know the basic safety rules when working in the school workshop. They should know the different categories of textiles and be able to identify some individual types. Pupils whould be able to independently use the tools and machines related to the scheme. Pupil will be more confident in a secondary D&T practical setting which will contribute majorly to their development for the rest of the Key stage. | |
| **Assessment Methods** | Key assessment pieces includes **design, manufacturing**, literacy (Usually in the form or **evaluation** or analysis) and **technical** assessment (Socrative online assessment assessing theoretical understanding of the chosen materials and its processes.) | Key assessment pieces includes **design, manufacturing**, literacy (Usually in the form or **evaluation** or analysis) and **technical** assessment (Socrative online assessment assessing theoretical understanding of the chosen materials and its processes.) | |