



Design and Technology

Year 8

Focus: Exploring materials

Aim:

In year 8 pupils have 3 projects that are completed and assessed at the end of each term. The second stage of designing for a purpose and a specified customer is focused on designing for Oak Lodge School.

Autumn term: Aim - to develop researching skills and understanding product use

In the first project of the year emphasis is placed upon developing researching and designing skills. Pupils learn how to communicate their ideas and present their work more effectively using a range of sketching and rendering techniques. The design and make task in term 1 is focused on producing a wooden product for the school. This may be a book support stand or a coat hook. Pupils develop the skills that they acquired in year 7 using different hand tools when working with wood and they are introduced to the fret saw and different ways of applying a suitable finish for a wooden product. They study different joining techniques and one-off, batch and mass production of products and the impact that has on the planet. They investigate how products may be marketed and sold.

Spring term: Aim - to develop product analysis and development of ideas

In the spring term pupils work with metal/ plastic to create a decorative product for the school grounds. This can be either a decorative or a functional product. Pupils discuss sustainability of materials and the importance of recycling and they incorporate recycled materials into their work. They work in pairs to develop their team-work skills and discuss the design problems. Pupils analyse existing decorative garden ornaments and complete short questionnaires to find out what other pupils and staff would like to see in the school grounds. They use a wide range of materials and select ones suitable for their designs. They develop practical skills and select appropriate tools for the process that they are using. The focus is on sustainability of materials and actively involving others in testing and developing their products.

Summer term: Aim - to develop self-evaluating skills

In the final term pupils design and screen-print either a T-shirt or a shoe bag for their PE kit. They develop an understanding of some textiles and where these come from. The main focus is on researching cotton, wool and silk. Pupils investigate and analyse different properties of textiles. They complete a short case study of a textile artist. They look at worldwide production of textiles including child slavery and ethical issues. They investigate how CAD/ CAM is used in the production of products. Pupils have short focused practical tasks exploring different ways of enhancing fabrics. Pupils learn how to separate colours in their designs to prepare a stencil for each layer for the silk screen. Pupils print their designs using a silk screen/and or apply a print using the heat press. They have the opportunity to test and evaluate their product in school.

Assessment:

Pupils are assessed using P Scales and Colour Oak Lodge Assessment DT levels based on essential knowledge, understanding and skills that all pupils should learn. They are assessed at the start and at the end of the year/term and they progress through RAG rating. They have written and verbal feedback every week on their achievement and effort.

Pupils self-assess own progress to develop a better understanding of their own skills and areas to develop.

Some Useful vocabulary:

Check year 7 useful words +

Recycled, sustainable, fret-saw, Silk screen, squeegee, wool, silk, cotton, natural, man-made, assemble, join, combine.

Websites:

www.50things.org.uk

www.lego.com

www.kids.nationalgeographic.com

www.designmuseum.org/

Parental support:

Encourage your child to see different pattern, colours and letterings on products. Point to different designs of products. In shops draw their attention to different materials and ask them if they can recognize them. Try to discuss sustainability of products and encourage pupils to recycle the products that are no longer needed.