Summer Term

SUBJECT: Design & Technology

Year: 8

Topic(s) to be covered:
LED lamp
In Year 8 DT students learn a range of topics which link to the project. They cover the following topics in theory lessons:

(1) Specification (2) Product analysis (3) Electronics (4) Health & Safety (5) Computer aided design (CAD).

Students will either

Practical: Students will create a functioning electrical circuit that will be installed into a box made from manufactured boards using a variety of joints. They will complete a computer aided drawing to design an image to be laser cut onto acrylic. The project will enable students to understand how electrical systems work. They will learn how to mark, cut out and join materials using tools and machinery safely and accurately. They will develop hand tool skills with the ability to continuously test their accuracy through quality control checks. They will develop problem solving skills when assembling and testing the product.

Develop in depth understanding of electronics and electrical components creating a resistor wheel, to identify values. They will develop communication skills, using perspective and a range of techniques to add detail and depth to drawings. They will complete a computer aided drawing to design an image to be laser cut onto acrylic and then furthering their skills working in mm precision. Students will then investigate smart materials and their properties incorporating them into a design.

Assessment Procedures:
Students are assessed in their work booklets through teacher, self and peer assessment. They have clear guidance on standards of work and descriptors for each grade. There is an expectation on students to develop independent skills and be able to consider their current ability and how to progress to the next grades. Students are graded on their “investigate, design, make and evaluate” sections of their work. Progress is measured against their starting point each term. Assessment is based on technology skills: subject theory, design ability and practical outcome.

Homework guidance:
Students are given homework at regular intervals at least every two weeks throughout the project. The homework tasks are shared on Insight for both parents and pupils to access.

Enrichment opportunities:
Students do have the option to attend catch up sessions if needed during lunchtimes or after school if they feel they need more time and support on their practical product.

How can you help?
Parents can support their child in DT by talking to them about the project they are undergoing and encourage them to do their best. If parents take an interest in their practical project work this helps to inspire and motivate students to excel in the subject. It is also helpful if students are provided with a quiet place to do their homework tasks. A home computer is also an essential requirement to enable students to access homework tasks and to enable them to research appropriately. Many homework tasks can be researched by using google but there are

some good sites which are free to access such as: ‘Technology student.com’ and ‘Mr D & T’.