

Topic: Amazon- Inventions- Design technology

Evaluation of Existing Products

- Research and evaluate existing products (including book and web based research).
- Consider user and purpose.
- Identify the strengths and weaknesses of their design ideas.

Focused Tasks: Mechanical and Electrical Systems and ICT

- Develop a technical vocabulary appropriate to the project.
- Use mechanical systems such as cams, pulleys and gears.
- Use electrical systems such as motors.

Design

- List tools needed before starting the activity.
- Record ideas using annotated diagrams.
- Use models, kits and drawings to help formulate design ideas.
- Devise step by step plans which can be read / followed by someone else.
- Use exploded diagrams to communicate ideas.
- Sketch and model alternative ideas.

Make

- Make prototypes.
- Develop one idea in depth.
- Use researched information to inform decisions.
- Produce detailed lists of components and tools.
- Select from and use a wide range of tools.
- Cut accurately and safely to a marked line.
- Use appropriate finishing techniques for the project.
- Refine their product - review and rework/improve.

Evaluation (of their Finished Product)

- Give a report using correct technical vocabulary.
- Understand how key people have influenced design.
- Consider and explain how the finished product could be improved related to design criteria.
- Discuss how well the finished product meets the design criteria of the user. Test on the user.

RE:

Sikh Dharma

ICT:

- Modelling and simulations
- Using the internet
- Communicating and collaborating

PSHE:

- Life education van (friends)
- Economic wellbeing

Literacy:

- Novel as a theme- The inventions of Hugo Cabret.
- Classic poetry

Science:

- Changes in Materials
- Reversible and Irreversible Changes (continued)
- Light/electricity

PE:

- Striking and fielding

Wonderful

Willows

Summer 2-

Eureka!

Numeracy:

- Measurement- mass and volume/capacity.
- Mental and written calculations.
- Fractions.
- Place value and decimals.
- 2D and 3D shape
- Assess and review