

YEAR 1: DESIGN & TECHNOLOGY MINI-LIGHT PROJECT

Week /Activity/ Learning Objectives <i>(Homeworks in brackets)</i>	Assessment Opportunities	Skills
<ol style="list-style-type: none"> 1. Teacher talks about the role of D&T and the key concepts: designing and making, cultural understanding, creativity, critical evaluation. Then move on to health & safety. New exercise books can be handed out with name labels, and target sheets. 2. DVD: the Genius of Design (ep5 – Objects of Desire). Question sheet to be given out at the beginning. Boys write the answers during the program. 3. Boys learn about the design process, then begin the mini-light project. Look at reasons for having a mini-light, then write a design brief and produce a task analysis 4. Boys learn about the materials used to make the mini-light. Then they must produce a research page based on this information. 5. Teacher talks about the importance of Product Analysis within the design process. Look at 5WH (who what where etc). Boys then produce a product analysis sheet analysing three products 6. Boys learn about circuits, components and symbols within the context of the project, then produce a research sheet based on this information. 7. Discuss the findings of all research so far (mind map). Teacher talks about the role of a specification. Boys produce their own specification based on what they have learned. An example is given (if necessary). 8. Boys produce four initial ideas for their mini-light. They must be well presented and communicated clearly. They must also include colour and annotation. 9. Boys choose their best design (or best features of their designs) and develop this further (link back to Spec. 10. Boys produce a final design. Stress high quality to boys. Boys must explain how their design meets the specification. 	<ol style="list-style-type: none"> 1. Informal Assessment – Q&A (Health &Safety) 2. Question sheets marked out of 15. (Option - Boys can mark each others work in following lesson). 3. Design brief formally marked out of 10. 4. Materials formally marked out of 10. 5. Product Analysis formally marked out of 10. 6. Research formally marked out of 10. 7. Specification formally marked out of 10. 8. Initial Ideas formally marked out of 10. 9. Development formally marked out of 10. 10. Final Design formally marked out of 10. 	<p>Designing Rendering Annotation Analysis Research ICT & CAD Skills Evaluation</p>
		Programmes of Study
		<p>1.1a, 1.1c, 1.1d, 1.2b, 1.3a, 1.4a, 1.4b, 1.4c, 2a, 2b, 2d, 2f, 2h, 3b, 3c, 4d, 4f, 4g</p>
Links within subject and cross curricular	Learning Styles (VAK)	Assessment Method
<p>Art: Design development through sketching. English: Communicating ideas through annotation , analysis through existing product analysis. ICT: Using Computer Aided Design to produce package prototypes. Mathematics: Measuring blister pack dimensions.</p>	<p>V : Power point, ICT work A : Question & Answer sessions, AFL Throughout K : making packaging</p>	<p>AFL throughout the project. Self/peer assessment throughout-worksheet to complete at the end of the project. Unit formally marked. Overall grade given at the end of the unit</p>

Citizenship**Links with unit of work**

a political, legal and human rights, and responsibilities of citizens	Packaging and the environment
b the roles of the law and the justice system and how they relate to young people	
c key features of parliamentary democracy and government in the constituent parts of the UK and at local level, including voting and elections	
d freedom of speech and diversity of views, and the role of the media in informing and influencing public opinion and holding those in power to account	
e actions that individuals, groups and organisations can take to influence decisions affecting communities and the environment	
f strategies for handling local and national disagreements and conflicts	
g the needs of the local community and how these are met through public services and the voluntary sector	
h how economic decisions are made, including where public money comes from and who decides how it is spent	

Economic Wellbeing and Financial Capability

a different types of work, including employment, self-employment and voluntary work	
b work roles and identities	Team activities
c the range of opportunities in learning and work and changing patterns of employment (local, national, European and global)	
d the personal review and planning process	Evaluation and analysis of research/ self/peer assessment
e skills and qualities in relation to employers' needs	Scenario/design briefs
f a range of economic and business terms, including the effect of competition on product and price	
g personal budgeting, money management and a range of financial products and services	
h risk and reward, and how money can be made through savings, investment and trade	
i how businesses use finance	
j social and moral dilemmas about the use of money.	Packaging and the environment

Personal Wellbeing

a examples of diverse values encountered in society and the clarification of personal values	
b the knowledge and skills needed for setting realistic targets and personal goals	Throughout in time setting/planning Self/peer assessment. Formal assessment
c physical and emotional changes as we develop	
d human relationships & reproduction	
e facts and laws about drug, alcohol and tobacco use and misuse, and the personal and social consequences of misuse for themselves and others	
f how a balanced diet and making choices for being healthy contribute to personal wellbeing, and the importance of balance between work, leisure and exercise	
g ways of recognising and reducing risk, minimising harm and getting help in emergency and risky situations	Health and safety guidelines