Year 7 Design & Technology - Curriculum Overview and KS3 Progress Descriptors

Aims and Rationale - “Working With Users”

Students will be building up key skills across Textiles, Graphics, & Product Design, in Y7. Students will be learning how to make simple products to a high quality using key skills which are used across Design & technology. Students will be applying these skills to three practical projects which are assessed summatively and will also be assessed on the theory using quizzes at the end of each rotation. Formative assessment will be via verbal feedback to students throughout the projects. Students will be focussing on user needs & wants as a theme for all of their projects across Y7.

Curriculum Content

Product Design - CAD/CAM Photo Frame - Workshop H&S / Properties of Timbers & Manufactured Boards / User Needs & Wants / Advantages & Disadvantages of CAD & CAM / Basic workshop skills
Textiles - Charity nightlight Project - Designing for a specific user / Textiles H&S / Heat transfer printing / Simple hand stitching methods / Using Templates
Graphics - WWF Childrens Activity Pack - Responding to a brief and specification /Graphical communication / Adobe Illustrator skills / Modelling skills

Key Terms/Themes

Product Design - Pine / Plywood / MDF / Vinyl / Scroll Saw / Belt Sander / Pillar Drill / Sand Paper / Tank Cutter / Vinyl Cutter / Danish Oil / User needs & wants / Brief / User / Site survey
Textiles - Brief / User / Materials / Textiles / Design cycle / Iterative design/ Risk assessment / Design fixation / 3rd party feedback / Annotation / ACCESSFM / Heat press / Heat transfer printing
Graphics - Brief / User / Stakeholder / Specification / Mood Board / Computer Aided Design (CAD) and Computer Aided Manufacture (CAM) / Net / Iterative design

How we assess at Key Stage 3

At Hitchin Girls’ School our curriculum is our progress model. Students benefit from a broad, diverse and challenging curriculum which increases in difficulty and challenge as students progress through the school. The expectation is that all students meet our curriculum at their relevant age range and as such meet the minimum of the secure descriptors below. Those working at an advancing level are working above, while those excelling are consistently working at a level far above their age range.

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	Developing	*Secure*	*Advancing*	*Excelling*
Technical Principles	• **Shown an emerging ability:** **Knowledge:** You have demonstrated a simple knowledge of materials, tools,"design and manufacture" processes, social, moral and environmental concerns. **Application:**You have started applying some of this knowledge to the development and production of your final prototype.	• **Shown a competent ability:** **Knowledge:** You have demonstrated a fair knowledge of materials, tools, "design and manufacture" processes, social, moral and environmental concerns. **Application:**You have applied this knowledge to the development and production of your final prototype.	• **Shown a very good ability:** **Knowledge:** You have demonstrated substantial knowledge of materials, tools, "design and manufacture" processes, social, moral and environmental concerns. **Application:** You have consistently applied this knowledge to the development and production of your final prototype.	• **Shown an exceptional ability:** **Knowledge:** You have demonstrated a fully detailed knowledge of materials, tools, "design and manufacture" processes, social, moral and environmental concerns. **Application:** You have effectively applied this knowledge to the development and production of your final prototype, alongside advising others.
Creativity	• **Shown emerging ability:** **Explore:** You have made a simple investigation of limited information linked to your user to guide your designing. **Create:** You have produced a simple range of design ideas. **Evaluate:** You have made a simple response to peer feedback throughout designing.	• **Shown a competent ability:** **Explore:** You have made an investigation into some information linked to your user to guide your designing. **Create:**You have produced a range of design ideas. **Evaluate:** You have responded to peer feedback throughout designing.	• **Shown a very good ability:** **Explore:** You have made a detailed investigation into a wide range of information linked to your user to guide your designing. **Create:** You have produced a range of design ideas with detailed annotation. **Evaluate:** You have responded confidently to peer feedback throughout designing which may feed into the development of designs.	• **Shown an exceptional ability:** **Explore:** You have made an independent & detailed investigation into a wide range of information linked to your user to guide your designing. **Create:** You have produced a fully detailed range of design ideas with very detailed annotation. **Evaluate:** You have responded extensively to feedback which feeds into development of designs.

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Making	• **Shown an emerging ability:** **Quality:** You have produced a final prototype of a basic standard, demonstrating very few areas of quality and accuracy. **Making Skills:**You have demonstrated with a **high level of support**, simple practicals/procedures processes in the making of your final prototype.	• **Shown a competent ability:** **Quality:** You have produced a final prototype of a good standard, demonstrating mostly good quality and accuracy. **Making Skills:**You have demonstrated good practical skills/procedures and processes when making your final prototype. **Processes are carried out with some independence.**	• **Shown a very good ability:** **Quality:** You have produced a final prototype of an excellent standard, demonstrating advanced skills, excellent quality and consistent levels of accuracy. **Making Skills:**You have demonstrated complex practical skills/procedures and processes when making your final prototype. You can explain to others what actions ensure high quality. **You have assisted others.**	• **Shown an exceptional ability:** **Quality:** You have produced a final prototype of an exceptional standard, demonstrating exceptional quality and precise levels of accuracy. **Making Skills:** You have consistently demonstrated complex practical skills/ procedures and processes when making your final prototype. You can explain to others what actions ensure high quality.**You have taught others.**