**Colton Hills Community School medium term planning**

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| **Topic title:**  Product Design – Re-cycled lamp. | **Year: 9**  **Term: 9-week project based on 4 curriculum area rotation.** | **Why we teach this:**  This project is design to develop hand skills and get students thinking more deeply about the impact design has on our planet. It also reinforces our DT department ethos - Research – Initial Design – Develop Designs – Make and Evaluation. | **Why we teach this here:**  This is an extension of the skills learnt in Year 8. Students are given the opportunity to design and make a high-quality outcome using a combination of materials and hand skills. Students will also work with re-cycled materials. | |
| **Big questions:**  **‘What goes into the designing and making of a lamp using recycled materials?’** | | **Builds on previous topics:**  Project 2 in product design. | **Links to future topics:**  Fundamentals of designing and making.  Analysis and evaluation of products.  Working with materials.  Evaluating products.  Sustainability and designing and the environment. | |
| **Key knowledge:**  **Knowledge of materials**  Knowledge of the working properties of materials.  How we use materials in the designing and making of products.  Where do the materials we use come from?  How can we cut down on the amount of materials used in the making of products?  **Health and Safety**   * Knowledge of safe practices within the DT department. * Knowledge of tools and how they are used. * Using tools with accuracy and skill. | **Key knowledge continued:**  **General DT knowledge**  Knowledge of why we analyse existing products.  Knowledge of why we study the work of other designers.  Knowledge of how we communicate ideas as designers.  Knowledge of presenting design ideas.  Knowledge of subject specific language. | |
| **Skills developed:**  Analysing a design brief.  Generating initial design ideas.  Developing design ideas.  Shaping and finishing wood using hand skills.  Working with materials and tools safely. | |
| **Mini/Interim assessments:**  Mini assessment after each section of the project.  **Termly summative assessment:**  Summative assessment of the project/rotation. | | **Independent study tasks/resources:**  Design booklet to be completed independently:  Week1: Research  Week 2: Sustainability  Week 3: Key word and concepts | **Key vocabulary 1:** Design Specification  Sustainable  Non sustainable  Prototype  Coniferous  Deciduous  Manufacture | **Key vocabulary 2:**  Materials  Develop  Laminate Context Construction  Analysis  Function  Repair  Reuse  Replace  Recycle  Refuse  Rethink |
| **Cultural capital opportunities:** …  Looking at the work of other designers.  Trips to design museum.  Talks by guest designers. | | **Whole school Curricular Concept links:**  **Technological progress**  How ICT has changed the way we design  **Precious Planet**  Designing will full consideration to the impact design has on the planet.  **Artistic Creativity**  Producing designs to meet a design context. Developing design ideas for an intended audience. |

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| **Week/ Phase** | **Key Features** | |
| 1 | **Small Questions:** How do design briefs help designers to prepare for a project? | |
| **Key Activities/Resources:** Analysing a design brief.  Writing a design specification. | **Retrieval focus:**  Writing a design specification for a specific product.  **Independent study:**  Writing a design specification.  www.technologystudent.com |
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| 2 | **Small Questions:** What are the health and safety expectations when working in the DT workshop? | |
| **Key Activities/Resources:**  Complete health and safety tasks in KAO.  Sign health and safety agreement. | **Retrieval focus:**  Health and safety in the DT workshop.  **Independent study:**  Existing products H/W using ACCESSFM |
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| 3 | **Small Questions:** How do you know which tools to use? | |
| **Key Activities/Resources:**  Complete tools and materials section in KAO.  Analysing which tools are used for specific tasks. | **Retrieval focus:**  The uses of tools when shaping materials.  **Independent study:**  Tools and their uses in the DT workshop.  www.technologystudent.com |
| **Week/ Phase** | **Key Features** | |
| 4 | **Small Questions:** Why do designers produce a range of design ideas? | |
| **Key Activities/Resources:**  **Task 1:** Complete at least 4 initial ideas for the design on your phone stand. You need to include the themes for your stand.  Your design should be drawn using pencil and coloured using pencil crayons.  You need to include **annotations** explaining your design choices for each design e.g. why you chose the design, colours, patterns and style for each bag design.  **Task 2:** Ask someone to give you feedback on your designs – which one is their favourite and why? What do they think you should change about the design? | **Retrieval focus:**  Generating design ideas.  **Independent study:**  Drawing and rendering techniques.  www.technologystudent.com |
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| 5 | **Small Questions:** How do you shape materials using hand tools? | |
| **Key Activities/Resources:**  Practical focus.  Marking out design onto pine and plywood.  Cutting and shaping pine using hand tools.  Finishing techniques using files.  Finishing techniques using glasspaper | **Retrieval focus:**  Using hand tools.  **Independent study:**  Using hand tools.  www.technologystudent.com |
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| 6 | **Small Questions:** How do you shape materials using hand tools? | |
| **Key Activities/Resources:**  Practical focus.  Marking out design onto pine and plywood.  Cutting and shaping pine using hand tools.  Finishing techniques using files.  Finishing techniques using glasspaper | **Retrieval focus:**  Using hand tools.  **Independent study:**  Drawing and rendering techniques.  www.technologystudent.com |
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| 7 | **Small Questions:** How do you shape materials using hand tools? | |
| **Key Activities/Resources:**  Practical focus.  Marking out design onto pine and plywood.  Cutting and shaping pine using hand tools.  Finishing techniques using files.  Finishing techniques using glasspaper | **Retrieval focus:**  Using hand tools.  **Independent study:**  Using hand tools.  www.technologystudent.com |
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| 8 | **Small Questions:** How do you shape materials using hand tools? | |
| **Key Activities/Resources:**  Practical focus.  Marking out design onto pine and plywood.  Cutting and shaping pine using hand tools.  Finishing techniques using files.  Finishing techniques using glasspaper.  Using a pillar drill. | **Retrieval focus:**  Using hand tools.  **Independent study:**  Drawing and rendering techniques.  www.technologystudent.com |
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| 9 | **Small Questions:** Why do designers evaluate their products? | |
| **Key Activities/Resources:**  Evaluating final products.  Peer evaluation of products.  Analysing evaluative data. | **Retrieval focus:**  N/A  **Independent study:**  N/A |
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