**Colton Hills Community School medium term planning**

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| **Topic title:**  Product Design – Phone/Tablet stand | **Year: 7**  **Term: 9-week project based on 4 curriculum area rotation.** | **Why we teach this:**  This is an introduction to Design Technology.  It is an introduction to the design process and the structure of a design project introducing the Research – Initial Design – Develop Designs – Make and evaluation ethos which is used across the DT department. | **Why we teach this here:**  This is an introduction to Design Technology teaching the basic skills and concepts needed in future product design projects. | |
| **Big questions:**   1. **‘What goes into the designing and making of a pine phone/tablet stand?’** | | **Builds on previous topics:**  Project 2 in Product Design. | **Links to future topics:**  Safe working practices.  Basic use of tools.  Fundamentals of designing and making.  Analysis and evaluation of products.  Working with materials.  Evaluating products. | |
| **Key knowledge:**  **Knowledge of materials**  Safety in the Design Workshop.  Safe working practices.  Knowledge of the working properties of materials.  How we use materials in the designing and making of products.  How the use of materials can impact upon the environment.  Where do the materials we use come from?  How can we cut down on the amount of materials used in the making of products?  How materials are re-cycled.  **Knowledge of key designers**   * Working methods * Materials used * Context of design work * Where it fits in the timeline of design. | **Key knowledge continued:**  **Health and Safety**   * Knowledge of safe practices within the DT department. * Knowledge of tools and how they are used. * Knowledge of materials.   **General DT knowledge**  Knowledge of what do designers actually do.  Knowledge of what a design brief is.  Knowledge of safe working practices.  Knowledge of materials properties.  Knowledge of the moral obligations of a designer.  Knowledge of how we communicate ideas as designers.  Knowledge of presenting design ideas.  Knowledge of subject specific language. | |
| **Skills developed:**  Research skills and the analysis of existing products.  Analysing a design brief.  Generating initial design ideas.  Developing design ideas.  Working with tools and materials  Material properties. | |
| **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: Properties of pine.  Week 2: Design and sustainability.  Week 3: Key words. | **Key vocabulary 1:** Reduce  Repair  Refuse  Reuse  Recycle  Rethink | **Key vocabulary 2:**  Workability  Sustainability  Manufacture  Promote  Promotional  Function  Functional |
| **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:** Why do we have design briefs? | |
| **Key Activities/Resources:** Analysing a design brief.  Writing a design brief.  Resources: KAO | **Retrieval focus:**  Understanding a design brief.  **Independent study:**  Existing products for next lesson. |
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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. | **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.  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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| 7 | **Small Questions:** How do you shape materials using hand tools. | |
| **Key Activities/Resources:**  Practical focus.  Marking out design onto pine.  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 construct a product using dowel joints? | |
| **Key Activities/Resources:**  Practical focus.  Marking out design onto pine.  Cutting and shaping pine using hand tools.  Finishing techniques using files.  Finishing techniques using glasspaper.  Drilling using a pillar drill.  Making dowel joints. | **Retrieval focus:**  Using hand tools.  **Independent study:**  Using hand tools.  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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