| **Area of DT - SMechanisms**  **Product:** Car  **Purpose:**  **User:** | | | | | |
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|  | **Session 1** | **Session 2** | **Session 3** | **Session 4** | **Session 5** |
| Knowledge Learning Objective: | To investigate existing products that incorporate gear or pulley systems. | To develop a design specification | To use selected materials to construct a final product | To create a working electrical circuit | To test products with the intended user in mind a |
| Skill Learning Objective: | To analyse and evaluate existing products | To adapt a design for a user. | To use suitable finishing techniques. | To troubleshoot a circuit | To evaluate the quality of the design, manufacture and functionality. |
| Pillar | Investigate and experiment | Design | Create | Create | Evaluate |
| Assessment | **All-**With support elements of design from notable designers are incorporated into designs.  **Most-** Generally there are some well reasoned choices for combining elements from a range of designers.  **Some-** An in depth knowledge of some designers work is reflected in some striking designs. The rationale and background to the design ideas are explained thoughtfully. | **All-** With support, prototypes are made and later developed  **Most-**Generally improvements are continual throughout the making process, with initial prototypes often changed radically through a number of refinements.  **Some-** Initial prototypes and alternative designs are thoroughly explored and explained. Refinements are continually made throughout the making process. | **All-** When reminded the qualities of materials are considered when selecting tools.  **Most-**The properties of materials are generally considered when choosing tools.  **Some-**An in-depth understanding of the properties of materials is used to carefully select appropriate tools | **All-** with support a range of practical skills are emerging to help create or repair products.  **Most-**A growing range of practical skills are used effectively to make or repair products.  **Some-**A wide range of practical skills are put to very effective use to make or repair a wide variety of products. | **All-** When reminded, evaluations are carried out throughout and at the end of the design process.  **Most-**Evaluation are generally ongoing and thorough. They relate to the user experience.  **Some-**The user experience drives critical self- evaluation and helps to identify current and future improvements. |
| Resources needed |  | | | | |
| Vocabulary |  | | | | |