



Fox Collection Education Program – Framework

Technology Curriculum and CSF – Upper Primary

Program Stage	Activities	Outcomes
Stage 1 – Pre Visit Activity		
<p>Pre Visit Activity</p> <ul style="list-style-type: none"> ▪ Students work through research activities, data gathering and experimentation to identify different types of materials, their characteristics, how they are used in manufacturing and how they are used in the automotive trades. They consider different types of vehicles and how function relates to design. 	<ol style="list-style-type: none"> 1. Material Identification -- Students bring empty food containers to school [steel can, aluminium can, plastic container, glass jar, cardboard box, wooden box] 2. Material Characteristics – Using materials collected in stage 1, students identify properties of different materials [weight, strength, hardness/durability, malleability, corrosion etc.] 3. Uses of Different Material -- Students identify key products and manufacturing uses for these materials, justifying why certain products are made of certain materials. Students consider advantages and disadvantages of using alternative materials for the production of different products. 4. Background research into history source, availability, manufacture and cost of different materials 5. Research and identify the different types of motor vehicles, the various parts and components of a vehicle, the inbuilt safety features incorporated within a car, plus the various materials used within different parts of a car and how the use of those materials relates to the particular function/purpose of the vehicle type. 	<p>Students will understand that:</p> <ol style="list-style-type: none"> 1. Manufacturing makes use of a range of materials 2. Materials have different potential uses and there will be a relationship between the properties of a material and the way it is used 3. The particular uses of different materials in the field of automotives 4. The relationship between the properties of a material and its uses in automotives. <p>By completing this stage of the Fox Program, students will address Part 4.1 of the Technology Curriculum in the Victorian CSF II.</p>
	<p>Student Work Outputs</p> <ul style="list-style-type: none"> ▪ Worksheet/Table – Material Characteristics ▪ Worksheet/Table – Material uses ▪ Report – Pros/Cons of using different materials for different purposes ▪ Report – Material History ▪ Poster – Stage 1: The Range of Vehicle types ▪ Poster – Stage 2: Components of vehicles and the use of materials in different types of vehicles 	



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Stage 2 – Visiting the Fox Collection

Visit to Fox Car Collection

Students visit the Fox Collection. The visit consists of 3 sections

1. In small groups with a supervising adult, students visit the Fox Collection of Classic Cars
2. In small teams, students construct working vehicle models on the miniature Assembly Line
3. Students undertake a guided tour of the Fox Collection Workshop where they view the methods used to work with materials to build and restore vehicles.

1. Compare cars from different eras and cars of different types to identify the different materials used in their construction.
2. Construct Cars on the Miniature Assembly Line – experience the working properties of different materials. Identify the construction sequence involved in a manufacturing process.
3. Observe the vehicle workshop – identify different materials and trades used in workshop and in different parts of cars
4. Identify and record systems, practices and procedures to ensure safety within a workshop environment.

Outputs

- Students complete Puzzles and Worksheets designed to enhance information gathering during the visit to the Fox Collection
- Working in teams, students assemble working models of vehicles, identifying safety procedures and construction sequence in the process.
- Students identify the processes and safety procedures used to work with different types of materials in the field of automotives

Students will observe and collect information from

1. A restored collection of prestige cars that represents a variety of automobile genres and a social history depicted through the history of the cars and their previous owners
2. A functioning automotive restoration workshop [including observation of different automotive trades and the techniques and associated safety procedures used.
3. Practical participation in the construction of working vehicles on a miniature assembly line.

Students will address outcomes 4.1 & 4.2 of the Technology Curriculum in the Victorian CSF II



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Stage 3 – Back at School

Post Visit Activity

Using data collected during their visit to the Fox Collection, students discuss issues of safety and prepare posters and presentations that represent the production process

1. Students demonstrate their understanding of a production line sequence by drawing a diagram of a Production Line process, considering the stages and sequences of the processes involved.
2. Students discuss problems that might emerge in a manufacturing assembly process and how those problems might be addressed
3. With reference to the automotive industry, students discuss how function and aesthetics influence the way materials are used in a production process.
4. Students complete posters and discuss issues to demonstrate an understanding of issues of workplace safety and the procedures used to address them.

Outputs

- Drawing/Flow Chart – A graphic representation of a manufacturing Production Line process.
- Poster/PowerPoint Presentation – Materials in Automotive design: Function and Aesthetics
- Safety – A Poster/Presentation about workplace safety

1. Students will understand that assembly takes place in a sequential order. Students will identify the reasons for the sequence in a production process and prepare diagrams that graphically represent a production process
2. Students will prepare posters identifying issues of workplace safety
3. Students will address outcomes 4.1 & 4.2 of the Technology Curriculum in the Victorian CSF II

