

Subject:

# Design & Technology: Resistant Materials



HECKMONDWIKE  
GRAMMAR SCHOOL

## KS4 - Year 9 Curriculum Overview

Autumn Term

### Topics being taught

#### Advanced Sketching

- Unit 4: Design Communication.
- Sketching in perspective.
- Design iteration: Designing a concept for a new water bottle.
- CAD modelling of a final idea.

#### Design Ventura Competition

- Unit 1: Identifying Requirements.
- Exploring a context: mind mapping.
- Conducting primary and secondary research.
- Initial ideas and prototype modelling.
- Presentation of final idea

Term 1

### What you will be assessed on

#### Stepping Stone Assessment

- Key terms and principles of sketching.
- **Progress grade:** quality of project submission.

#### Milestone Assessment

- Unit 1: Identifying requirements
- Unit 4: Design Thinking and Communication
- **Progress grade:** quality of project submission.

Term 2

### How you can support at home

Seneca: 4 Design Thinking & Communication

Independent Reading: Chapter 8 Communicating Design Solutions.

Seneca: 1 Identifying Requirements

Independent Reading: Chapter 1 Exploring the context of a design solution; Chapter 2 Usability.

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Spring Term

### Topics being taught

#### Modelling Skills

- Working with templates for accuracy and precision in model making.
- Using specialist tools, techniques and processes when modelling in corrugate.

#### Extended Project

- Unit 5: Categories of Materials
- Exploring a context: Mind mapping
- Conducting secondary research
- Writing a design brief
- Establishing primary user needs

Term 3

### What you will be assessed on

#### Stepping Stone Assessment

- Papers and boards
- **Progress grade:** quality of final prototype

#### Milestone Assessment

- Unit 5: Material Considerations
- **Progress grade:** quality of project mid-term submission.

Term 4

### How you can support at home

Seneca: 5 Material Categories (5.1.9 Papers and Boards).

Independent Reading: Chapter 10 Categories of Materials (Pg. 26-27)

Seneca: 5 Material Categories.

Independent Reading: Chapter 10 Categories of Materials (Pg. 28-31)

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Summer Term

### Topics being taught

#### Extended Project

- Sketching initial ideas to meet primary user needs.
- Development of ideas.
- Prototype modelling of final idea.
- Presentation of final idea.

#### Exam Technique and Practice

- Unit 3: Wider Implications
- Unit 9: In-Depth Timbers

#### The work of others

- Unit 2: The work of others

Term 5

### What you will be assessed on

#### Stepping Stone Assessment

- Unit 5: Material Considerations
- **Progress grade:** quality of project submission

#### Year 9 Finals Exam

- Unit 1: Identifying Requirements
- Unit 3: Wider Implications
- Unit 4: Design Thinking and Communication
- Unit 5: Material Considerations
- Unit 8: In-Depth Papers and Boards

Term 6

### How you can support at home

Seneca: 3 Implications of Wider Issues

Independent Reading: Chapters 3 - 5 Wider Implications

Seneca: 7 In-Depth Timbers

Independent Reading: Chapter 16 In-Depth Timbers