



St. Bede's Catholic School &
Byron Sixth Form College

SOAR words:
Add these cumulatively
throughout the cycle.

Responsibility

Polymer

Adhesive

Acrylic

Polystyrene

Lamination

Thermoplastic

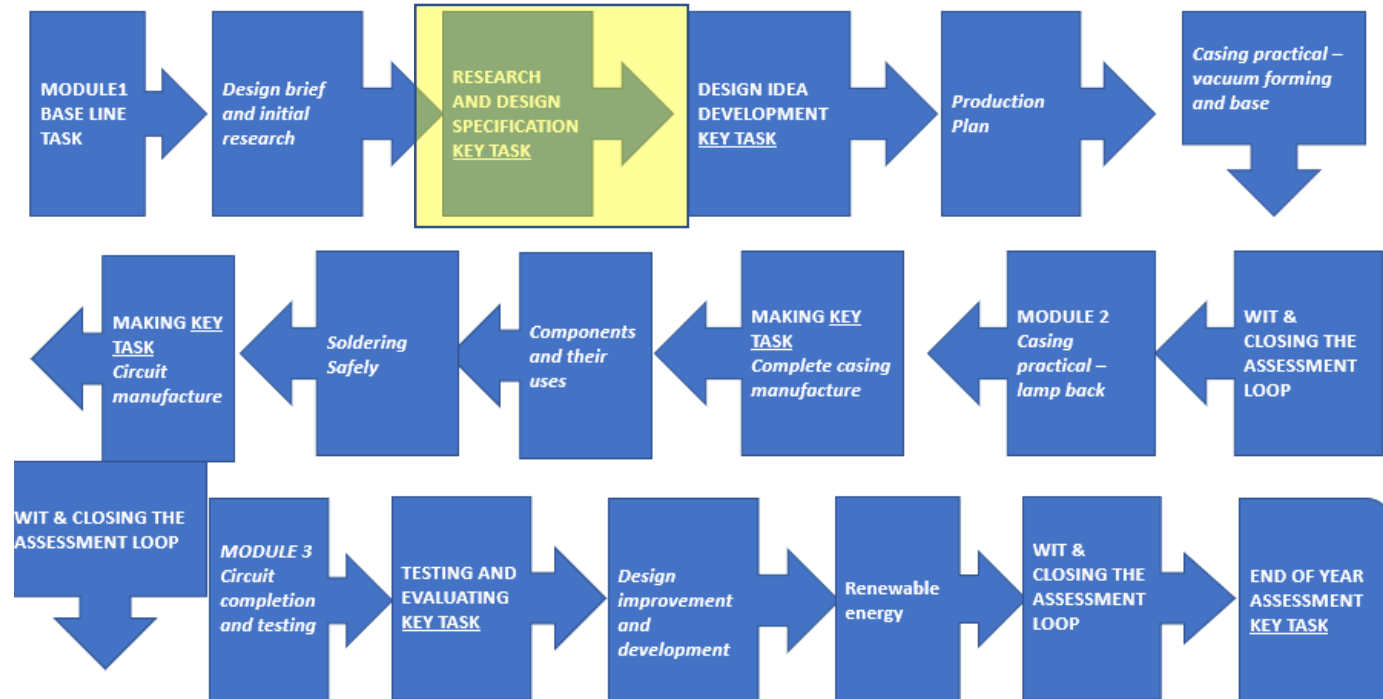
Thermosetting

Title: Design Specification

What outstanding progress in this lesson will look like:
(Be ambitious and specific when writing outcomes)

Lesson Objective: Analyse the task and understand the brief.

Y8 Cycle 1-3 Mapping



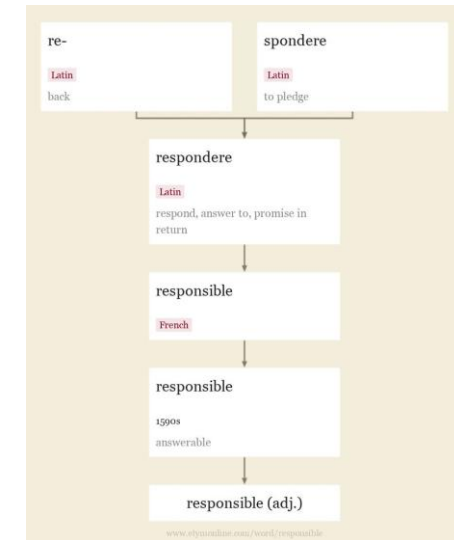
'With the Lord's help'

Faith, Excellence, Determination

Definition

The state or fact of being accountable or to blame for something.

Facts/Characteristics



Responsibility

Examples



To be responsible for your own safety and wellbeing.

Non-examples

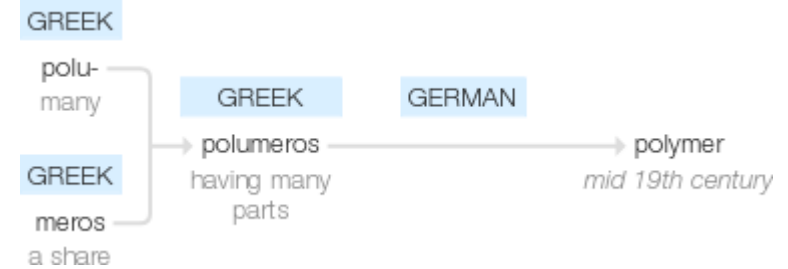
- Not to answering back
- Not just someone else's issue.

Definition

noun

A substance which has a molecular structure built up chiefly or completely from a large number of similar units bonded together, e.g. many synthetic organic materials used as plastics and resins.

Facts/Characteristics



Polymer

Examples

Polymers Based on Molecular Force

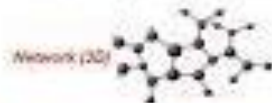
Thermoplastic

- Can easily cooled and reheated repeatedly, i.e. recycled
- Examples: polyethylene, polypropylene, polystyrene etc.



Thermoset

- Form a network
- Degrade (not melt) when heated
- Examples: unsaturated polyesters, urethane, epoxy etc.



Non-examples

- Not the name of a plastic but the group.

Design Specification

You have been tasked with designing and making a lamp for a customer of your choice.

Task 1

Write a design specification for your product. Use the prompts and P.E.E. chains to complete a list of points that your product must meet. The sheets are to be completed on the next two slides. This may take longer than one lesson.

POINT: It must/should/will....

EVIDENCE: This is due to....

EXPLAIN: This is because....

Word Bank

Appearance
Colour
Shape
Size
Safety
Materials

Success Criteria

Write in full sentences.

Give specific details of your product.

Make it specific.

“Write Like A...” Glossary of Key Terms



Audience	Who is the writing aimed at? This might be indicated in the task wording, but, generally, students are writing for you/an adult audience so should write formally.
Clause	Building blocks of sentences – can be main or subordinate
Conjunction	A word used to connect clauses or sentences (e.g. and, but, if).
Devices	Techniques that writers use to achieve certain purposes – for example, to describe, or persuade their reader.
Grammar	The standard rules for writing, including sentence structuring and the order of words etc.
Homophones	Words that sound the same but have different spellings and meanings: Hair/hare Their/there
Purpose	The aim of the writing: Is it an analysis? Is it descriptive? Is it explaining a process? Students should understand the purpose that they are aiming to achieve.
Rhetorical devices	Devices used by writers to convince or persuade their readers – for example, rhetorical questions, hyperbole, emotive language etc.
Main clause	A sentence will contain at least one main clause that can stand alone. It contains a subject and main verb but can also have additional parts such as an object. I took a bath (main clause) I took a bath <i>after eating dinner</i> (subordinate clause added)*
Standard English	Formal writing that is different to the way we usually speak, and avoids using slang/dialect words
*Subordinate clause	Additional clauses that can be added to the main clause to give further information, often conditions or explanations using subordinating conjunctions such as ‘if’, ‘as’ ‘because’ etc. This type of clause cannot stand alone as a sentence. James searched for his dog (main clause) <i>Despite the awful weather</i> , James searched for his dog (subordinate clause added)
Suffix	A letter or group of letters added at the end of a word to make a new word: In the word "quickly," "-ly" is a suffix, as is “-er” in “quicker”. Suffixes develop the meaning of the original word.
Tense	Any of the forms of a verb which show when something happened: "I sing" is in the present tense and "I sang" is in the past tense. Students often have to stay within one tense in a piece of writing.

Research and Design Specification

KEY TASK 1

Your job is to design a coat hook for a child with a visual impairment. Before you start designing you must complete the **Product Specification** on this page. A specification is basically a list of **rules** of what your final product should be like. It should also give reasons **WHY** you think that rule should be there (*see the example*). You should write in **FULL** sentences and think hard about how your product should be. Your coat hook will be bought by the school for use in their classrooms and needs to be suitable for their students who are aged 5-11 years old.

Aesthetics	POINT: It must/should/will....
	EVIDENCE: This is due to....
	EXPLAIN: This is because....
Cost	P How much will it cost?
	E
	E
Customer	P What age, gender, themes will your customer be or be interested in?
	E
	E

Key words:

Profit
Age
Gender
Theme
Interests
Evidence
Explain

Research and Design Specification

KEY TASK 1

Environment	P	Where will it be used or will it be recyclable ?
	E	
	E	
Safety	P	How will your product be safe?
	E	
	E	
Size	P	What size will it be? Height x Width x Length
	E	
	E	
Materials/ Manufacture	P	What materials will you use?
	E	
	E	

POINT: It must/should/will....
EVIDENCE: This is due to....
EXPLAIN: This is because....

Key words:
Environment
Recycle
Dimensions
Mild Steel
Plywood
MDF