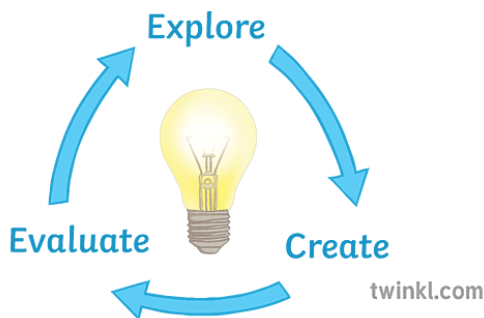


NEA & Theory

Cycle 3

Year 11



Work completed: BLACK pen.

Teacher assessment—RED pen

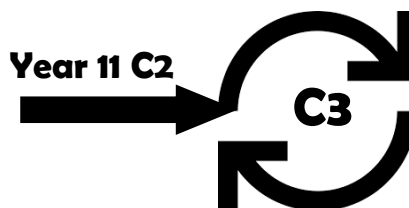
Student assessment/improvements—GREEN pen

RECALL activities—BLUE pen

Name

Teaching Group

Teacher



Key Stage 4

Leadership Tasks carried out: (tick existing or add others)

Cycle 1 Chosen Student Leader? - Yes No

RECALL task planner

Led a team

Demonstrated a practical task

Created a plenary

Presented to class

Explained a topic to others

Helped my peers

.....

.....

Week	Content	Completed? Y / N EFFORT
1&2	<p>Lesson 1</p> <ul style="list-style-type: none"> • <u>Introduction to Section E—Making, Diary of making, Health and Safety, Quality control, Quality Assessment and Tolerances—Refer to these point each lesson</u> • Review of NEA progress—tracker and self assessment of Section A, B, C, D & F • Continuation of NEA—Sections A, B, C, D, E & F in flow <p><i>Homework 1: Make improvements identified in self assessment to ensure you are at least on target for your NEA</i></p> <p><i>Challenge: using the self-assessment help guide—improve your work to one grade above</i></p> <p><i>Further Challenge: write yourself targets and ensure you are familiar with the assessment criteria for Section C, D, E & F</i></p> <p>Lesson 2—FULL REVISION LESSON</p> <ul style="list-style-type: none"> • Energy Storage and Generation—Battery voltages • Forces and Stresses—Types of Forces • Development in new materials—Smart materials • Systems approach to designing—Input and Output devices <p>Lesson 3</p> <ul style="list-style-type: none"> • Starter—Material Categories • Continuation of NEA—Sections A, B, C, D, E & F in flow <p><i>Homework2: Pre-learning task—Life Cycle assessment, find out the stages</i></p> <p><i>Challenge: Explain each stage</i></p> <p><i>Further Challenge: Explain each stage and give an example of how 1 product might have an impact at each stage</i></p> <p>Lesson 4</p> <ul style="list-style-type: none"> • FULL REVISION LESSON • Life cycle assessment exam question • Material Properties—Properties of MDF, why is it a good material for making large items of furniture? High Speed Steel properties? <p>Lesson 5</p> <ul style="list-style-type: none"> • Continuation of NEA—Sections A, B, C, D, E & F in flow <p>Lesson 6</p> <ul style="list-style-type: none"> • Continuation of NEA—Sections A, B, C, D, E & F in flow <p><i>Homework 1: Make improvements identified in self assessment to ensure you are at least on target for your NEA</i></p> <p><i>Challenge: using the self-assessment help guide—improve your work to one grade above</i></p> <p><i>Further Challenge: write yourself targets and ensure you are familiar with the assessment criteria for Section C, D</i></p>	

Why are we developing our analytical & evaluation skills?



You are enhancing your skills so that you:

- ◆ Can begin to work more
- ◆ independently and accurately self assess yourself regularly
- ◆ Can work more effectively towards your target grade
- ◆ Analytical and evaluation skills are needed for both the NEA & exam

NEA & Theory (ratio NEA 4 V theory 2)

Week	Content	Completed?	
		Y / N	EFFORT
3&4	<p>Lesson 7</p> <ul style="list-style-type: none"> FULL REVISION LESSON Levers, CAMS, Mechanisms Surface Treatments and finishes <p>Homework 3: Ensure revision work sheets are fully completed and continue NEA</p> <p>Challenge: ensure continually self assessing against the mark scheme</p> <p>Further Challenge: use tracker to identify tasks which will gain marks in the higher markband for Section C & D and apply to own NEA</p> <p>Lesson 8</p> <ul style="list-style-type: none"> Continuation of NEA—Sections A, B, C, D, E & F in flow <p>Lesson 9</p> <ul style="list-style-type: none"> Continuation of NEA—Sections A, B, C, D, E & F in flow <p>Homework 4: Pre learning task—Calculating cost of materials</p> <p>Challenge: ensure continually self assessing against the mark scheme</p> <p>Further Challenge: use tracker to identify tasks which will gain marks in the higher markband for Section C & D, E and apply to own NEA</p> <p>Lesson 10</p> <ul style="list-style-type: none"> FULL REVISION LESSON Maths—Calculating cost of materials Exploded Diagrams, Isometric drawing Tessellation <p>Lesson 11</p> <ul style="list-style-type: none"> Continuation of NEA—Sections A, B, C, D, E & F in flow <p>Lesson 12</p>		
5&6	<p>Lesson 13</p> <ul style="list-style-type: none"> Revision Starter—Using audio and visual information Continuation of NEA—Sections A, B, C, D, E & F in flow <p>Homework 3: NEA (targeted tasks—individual)</p> <p>Challenge: ensure continually self assessing against the mark scheme</p> <p>Further Challenge: use tracker to identify tasks which will gain marks in the higher markband for Section C & D, E and F and apply to own NEA</p> <p>Lesson 14</p> <ul style="list-style-type: none"> FULL REVISION LESSON Reducing Global and environmental impact Mathematical modelling Testing Product <p>Lesson 15</p> <ul style="list-style-type: none"> 15 Mins Primary sources of materials Starter Continuation of NEA—Sections A, B, C, D, E & F in flow <p>Homework 3: Examination style question social footprint</p> <p>Challenge: self-assess yourself—what mark do you think you have?</p> <p>Further Challenge: write what you think the markscheme is for this question (template)</p>		

NEA & Theory (ratio NEA 4 V theory 2)

Week	Content	Completed?	
		Y / N	EFFORT
5&6 cont	Lesson 16 <ul style="list-style-type: none"> Revision—Design Fixation Product analysis Continuation of NEA—Sections A, B, C, D, E & F in flow Lesson 17 <ul style="list-style-type: none"> REVISION RECAP plus New and emerging technologies Continuation of NEA—Sections A, B, C, D, E & F in flow Lesson 18		



Tick when you think you are able to define the meaning of the keyword

Challenge!

Can you add more keywords you have covered?



KEYWORDS	
Lap joint	
Specification	Brief
Perspective	Isometric
Orthographic	Render
Model	Prototype
CAD CAM	Social footprint
Production	Justify
	Scales of Production

Student Self Evaluation










WWW	EBI
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Cycle NEA—Assessment & Development of skills

My Expected Grade				
Teacher Assessed Grade (circle)				
SBE	BE	E	AE	SAE
Comment:				

Cycle 3 NEA & multi topic theory — Curriculum Journey

During the course of this cycle, you will cover content pertaining to the NEA and examination within the following categories:

Pre-Learning 	Vital prior knowledge you can obtain before lessons to further your understanding of the topic.	Manufacturing systems: Types of Manufacturing, Automation and Robotics (JIT, FMS) - GCSE DT - YouTube Technological advancements: 15 Emerging Technologies that Will Change the World - YouTube
Skills 	Specific skills you will learn and use during the project.	Time & project management skills; researching; analysing & evaluating; developing ideas; liaising with clients and acting upon third party feedback; design communication skills; developing a prototype; practical skills
Knowledge 	Specific knowledge you will obtain throughout the project.	The correct & safe use of modelling equipment. Material properties & applications
Literacy 	Aspects of the project that will improve your reading, writing, spelling, grammar and comprehension.	The NEA requires good communication skills with good use of SPAG -s to form written elements of their NEA - understanding COMMAND words is a focus
Maths 	Aspects of the project that will develop your attainment in Maths related to Design & Technology.	Examination question practice for Mock 2 - mechanical advantage;
Cross-curricular links 	Aspects of the project that link	Science—advancements in technology Maths—Examination questions for Mock 2 English—evaluative and descriptive language: NEA & Mock 2
Looking forward to the NEA & EXAMINATION: >>	Aspects of the project related to further study of Design & Technology at GCSE.	Cycle work includes question practice and focus on response & revision techniques. Mock exam is full 2hour paper
Building challenge 	Tasks that encourage you to test yourself and exceed targets/expectations.	Students have previously worked on developing accurate and functioning prototypes and the importance of material management - they must now apply all these skills to their NEA project
Careers 	Aspects of the project that display the relevant career paths that can be taken using the skills and knowledge acquired.	Product Designer; Graphic Designer; Engineer.
PSHE/SMSC 	Aspects of the project that consider the spiritual, moral, social and cultural impact of the project and its adherence to British values.	Spiritual: student led NEA; reflection; making improvements. Moral: origins of materials - ethical sourcing; Fairtrade; environmental factors. Social: student leaders; working with others; social & economic issues theory for mock. Cultural: prototype development; working with others; commitment to P6 catch up NEA.

Links between learning in KS3 & Yr10 that prepare you for this cycle.

Prior learning from KS3; Yr10 & Yr11 C1&2:

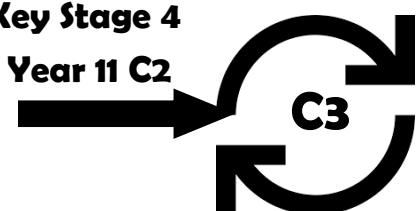
Examination skills are built upon as students complete their third mock examination. Read; decode; plan; answer (RDPA), should now be embedded in student's approach to examination questions.

Students will have reviewed attainment from Mock 1 and consolidated any identified gaps in knowledge or exam technique.

Students continue to build up NEA project skills—client centred; iterative approach.

Key Stage 4

Year 11 C2



Yr11

Key Stage 4