

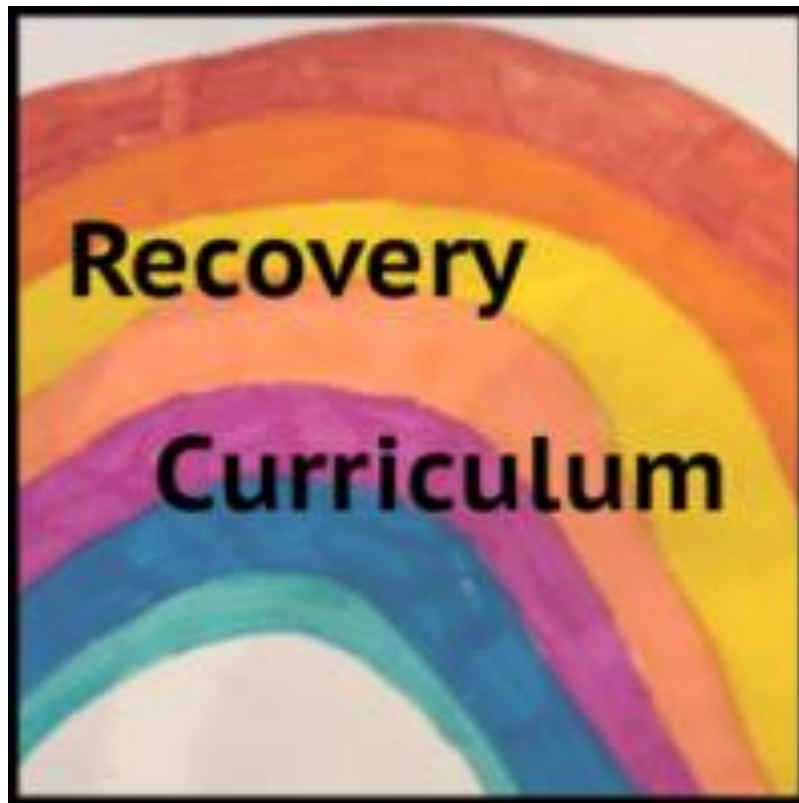
RECOVERY CURRICULUM

Subject: GCSE D&T

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Subject:	GCSE Design & Technology	Teacher:	DJB
Year:	11	Class:	11C/Tp1
Unit title:	Recovery		
Duration:	7 session		

Intent

Intent Statement - at Landau Forte Amington, we believe learning powerful knowledge helps students achieve and creates a fairer society. How are you trying to accomplish this, with this unit/topic?

This topic will focus on student recovery following the pandemic, which has resulted in students experiencing the following possible losses: routine, structure, friendship, opportunity and freedom. It will support students academically, socially and emotionally, in order to transition students back to Academy life and support with the issues resulting from loss.

Aims - what do you want pupils to be able to know and do by the time they finish this unit/topic?

How energy is produced and stored
Different scales of production

Academy values – at Landau Forte Amington, we want students to be ambitious, brave and kind. How are these values promoted in this PoS?

Students will be encouraged to be ambitious in their desire to get back to normal and embrace methods of getting back to practical activities. They will be encouraged to be brave and have a go at activities they have become unfamiliar with. Kindness will be shown in understanding that everyone ones has had to deal with their own issues during lockdown and to show understanding of other people's opinions.

Content – what is being covered, ensuring breadth & depth?	National Curriculum/Exam Specification - how does the content link to the NC or Exam Spec?
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Energy production by renewable and non-renewable sources Industrial production systems and scales of production	AQA Spec points 3.1.2 Energy generation and storage 3.2.7 Scales of production
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Powerful Knowledge - what powerful knowledge is included in this SoW? Consider what knowledge is it important for our students to know, so that when they leave school they can engage in and lead discussions, with people from the most advantaged backgrounds?

How energy is produced in different ways and how this can impact the planet. Students will be more able to make informed choices. Different scales of production will open students' eyes to the opportunities available to them following achieving a D&T qualification.

Implementation

GAPS

Identification – how are you going to identify the gaps in knowledge/skills?

Missing knowledge has been identified from the units which would have been covered during lockdown

Triage – how are you going to rank order these gaps in knowledge/skills and 'fill' them, in order of importance?

Scales of production is knowledge which will play a large part in producing a detailed NEA portfolio so will be prioritised. Energy production and storage is more exam based information so can be covered in more depth during and after NEA is completed.

KEY CONCEPTS

Key Concepts – what are the key concepts being taught?

How different products are manufactured at different scales and how this can impact the economic viability of a design. Where energy (electricity) comes from and how this can impact the design of a product.

Progression – how will studying these key concepts support progression to the traditional curriculum that has been planned?

Both concepts are key to the delivery of the CGSE and are taken directly from the specification. Scales of production is knowledge which will play a large part in producing a detailed NEA portfolio.

WELLBEING

Lockdown – how will students share their experiences of lockdown?

Discussion of:
Online purchases made during lockdown and why they were made (considering environmental impact of materials)
Any practical activities they have done at home which they may not have done previously

Social and Emotional – how will student social and emotional health be supported?

Any discussions will focus on student needs and take into account students different experiences of lockdown.
Student experiences of lockdown will be used to influence the lesson content.

RE-ESTABLISH

Learning Skills – how are you going to re-establish the skills for learning?	Relationships – how are you going to re-establish classroom relationships?
Routines will be recapped (D&T rooms can be different to general classrooms) Walkthroughs will be given in the practical rooms and demonstrations given on equipment use.	Seating plans will be based around known friendship groups and established working groups. Teachers will be sharing their experiences of lockdown to make students realise we have all experienced similar things
OPPORTUNITIES	
Discussion – what are the discussion based opportunities?	Group – what are the group work based opportunities (while still ensuring social distancing)?
Discussion of how their working environments at home could be redesigned and adapted. Has working from home had any impact of their energy consumption?	Sorting and discussing different scales of production for manufacturing different products.

Delivery							
1		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input type="checkbox"/>	How many different ways are there for producing electricity? Name as many as you can.	What	How is electricity produced?	
		Blended (live and remote as independent study)	X		Why	To be able to choose the most appropriate source for products	
	How				By comparing rates of production and environmental impact		
	Number of lessons in cycle: 1	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		Recap of knowledge learnt through remote learning in lockdown – renewable or non-renewable		Targeted questioning which are renewable or non-renewable	Modelled example of pros and cons of coal fired power stations.		
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)
		Students complete task for other energy sources.		Discussion with student check against success criteria	End of module test as DNA in session 3		
2		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		

		Classroom (whole sequence completed)	<input type="checkbox"/>	Why might we need to store energy/electricity?	What	How energy is stored and why		
		Blended (live and remote as independent study)	X		Why	To make choices on suitable energy storage systems		
					How	By comparing systems and applying them to different products		
Number of lessons in cycle: 1		4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)	
		New material – storage systems for mass storage of electricity.		Daydream education quick test	Advantages and disadvantages of fuel cells modelled.			
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)	
		Students complete analysis of kinetic pumped storage systems		Discussion of students work and checking against success criteria	End of module test as DNA in session 3			
3		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)			
		Classroom (whole sequence completed)	<input type="checkbox"/>	Testing on energy production and storage	What	What scales of production are used in manufacturing		
		Blended (live and remote as independent study)	X		Why	To establish choices for the most appropriate system for a particular product		
					How	BY comparing scales and products		
	Number of lessons in cycle: 2		4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
			Recap of knowledge learnt through remote learning in lockdown – scales of production		Daydream education quick test	Key features of one off/bespoke production discussed and modelled		
			7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)
			Students analyse batch, mass and continuous flow production.		Written teacher feedback on DNA task. Redo Daydream quick test to gauge progress	End of module test. Subject revisited during NEA task to identify most suitable for product manufacture		

4	Number of lessons in cycle: 2	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Classroom (whole sequence completed)	<input type="checkbox"/>	What are the advantages of automated production systems?	What	What industrial production techniques are available
		Blended (live and remote as independent study)	X		Why	To establish how products are made economically viable
	How				By comparing techniques and making choices for certain products	
	Number of lessons in cycle: 2	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	
Recap of knowledge learnt through remote learning in lockdown – production techniques		Targeted questioning	Model completion of technologystudent.com just in time research page			
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)	
Students use Technologystudent.com app to analyse manufacturing techniques and present results		Discussion feedback	End of module test.			

5	Number of lessons in cycle: 1	1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Classroom (whole sequence completed)	<input type="checkbox"/>	End of module test on scales and techniques for industrial manufacture	What	
		Blended (live and remote as independent study)	X		Why	
	How					
	Number of lessons in cycle: 1	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	
7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)	

			Written feedback with opportunity to update work in next session			
6		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Classroom (whole sequence completed)	<input type="checkbox"/>		What	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	
			How			
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)
7		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Classroom (whole sequence completed)	<input type="checkbox"/>		What	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	
			How			
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
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8		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)		
		Classroom (whole sequence completed)	<input type="checkbox"/>		What		
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why		
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asynchronous (remote)
	9		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
Classroom (whole sequence completed)			<input type="checkbox"/>	What			
Blended (live and remote as independent study)			<input type="checkbox"/>	Why			
Number of lessons in cycle:		4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)		Synchronous (live)
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)		Asyn chro

10		1) Lesson Type (classroom or blended for remote homework)		2) DNA (Do Now Activity/Reading)	3) Learning Intentions (what, why & how)	
		Classroom (whole sequence completed)	<input type="checkbox"/>		What	
		Blended (live and remote as independent study)	<input type="checkbox"/>		Why	
			How			
	Number of lessons in cycle:	4) New Material (previous learning/ new material)		5) Check for Understanding (questioning/checking)	6) Prepare for Practice (model/ scaffold)	Synchronous (live)
		7) Deliberate Practice (guided/ independent)		8) Feedback (light/deep)	9) Review (daily/monthly)	Asynchronous (remote)