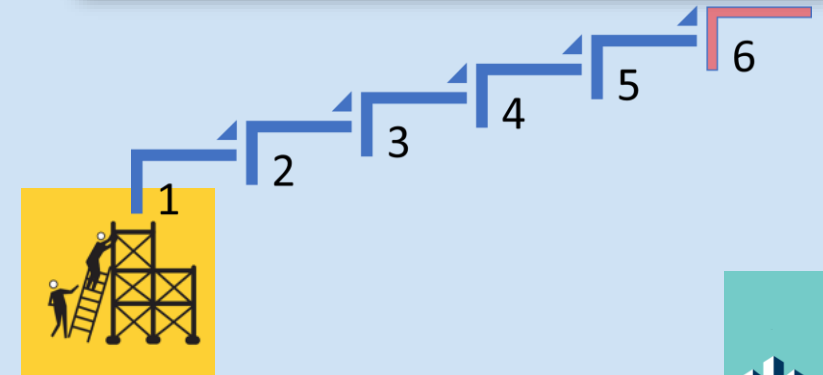
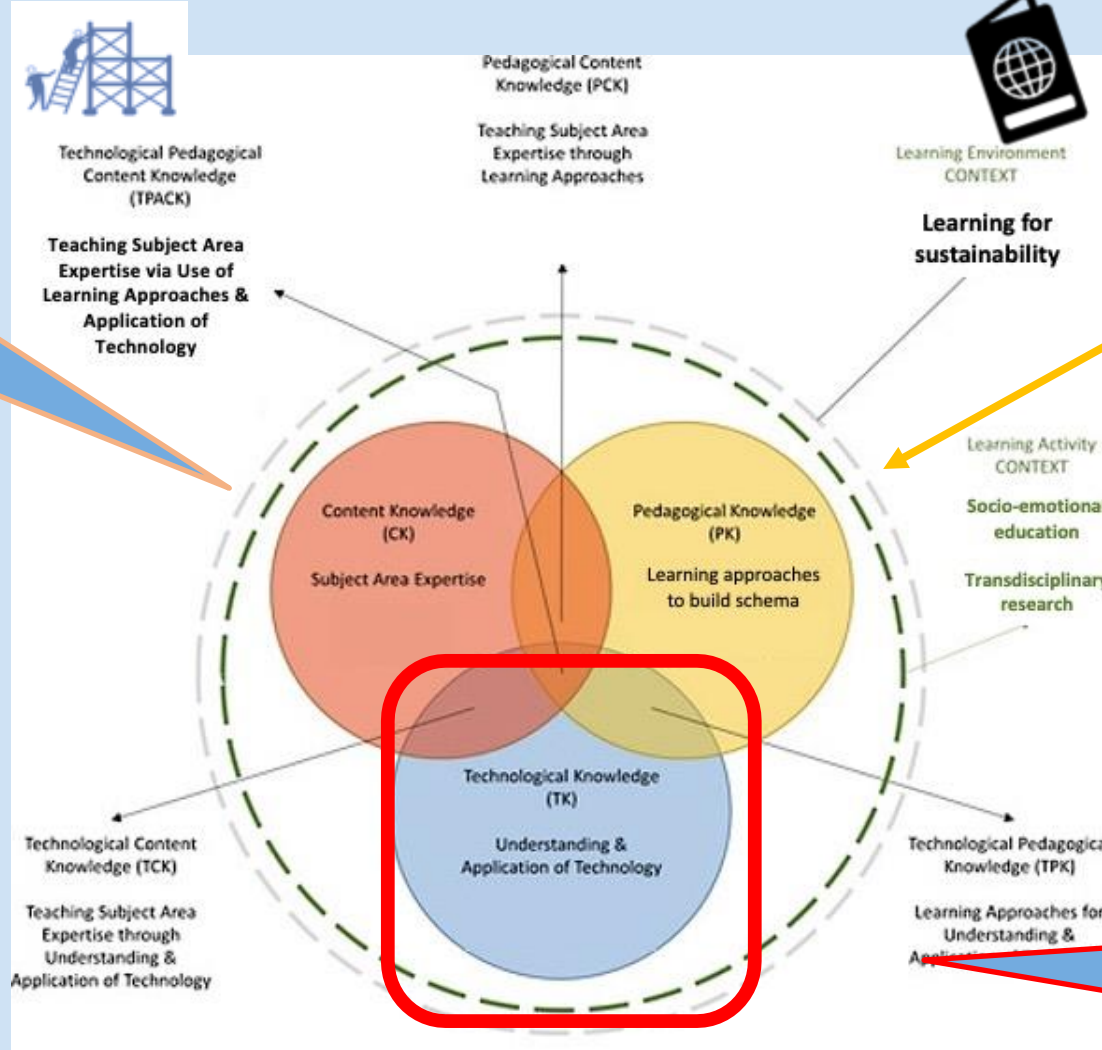


Module 3: Sequencing/integrating GIS into the curriculum

3) Working with GIS layers



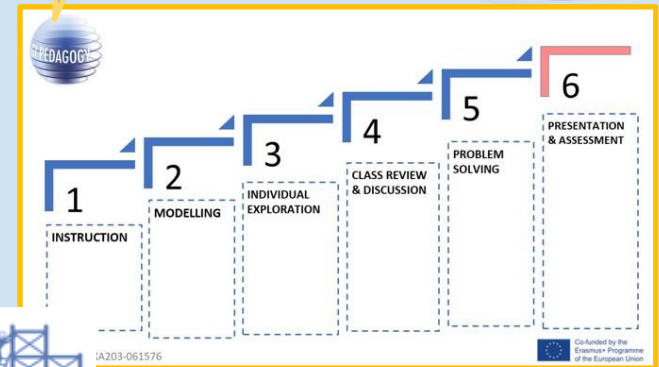
English Curriculum: Sequencing



Sequence your Curriculum Content Knowledge

Pedagogy

GI PEDAGOGY



Assess your GIS Technical Competency Level (L1 – L5) for teaching with GIS in the Curriculum?



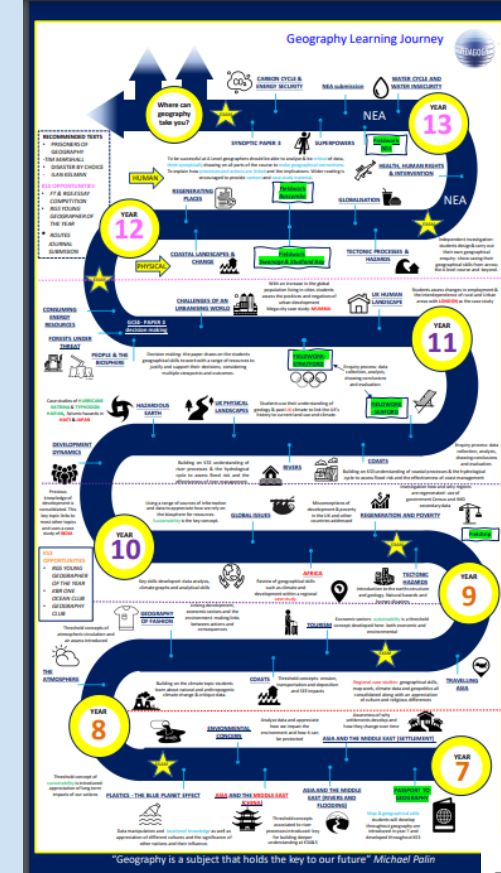
English Curriculum: Sequencing



Rosenshine's Principles of Instruction (dual coding icons) for teachers' use

Principle	Description	Icon
1	(Daily) review Start each lesson with a repetition of previous material. Regular repetition reinforces what was learned and leads to more spontaneous recall.	
2	New materials in small steps Present learning materials in small amounts. Accompany students with practice after each step.	
3	Ask questions (onderwijsleergesprek) They connect the new learning material with previous knowledge and practise it.	
4	Provide models Pupils can focus on the steps to solve a problem.	
5	Guide student practice The best teachers spend a lot of time supervising the practice/learning of new material.	
6	Check student understanding (onderwijsleergesprek) By checking in between, pupils can learn the material with fewer mistakes.	
7	Obtain high success rate Aim for the students to experience approximately 80% success in the exercises, questioning ...	
8	Scaffolds for difficult tasks The teacher provides temporary support that decreases as students become more competent.	
9	Independent practice Provide practice time in and out of the classroom so that the learned material can be automated.	
10	(Weekly and monthly) review Pupils need to practise intensively in order to automate the material. Not necessary for this key study.	

Icons based on [Rosenshine poster by Oliver Caviglioli](#)



Step	Identify a topic / story that is going to be told / explored using GIS	Other
	[LESSON TITLE]	
	[LESSON SUBTITLE]	
	Curriculum context:	
	Target age group:	
LOs	Learning objectives [Ideas for Learning objective statements] ● Retrieve prior learning about... ● Describe and explain links between... ● Describe, explain and evaluate... Can link to SDGs especially: (Choose only those related to the vignette topic and activities)	

Sequence of lessons Geography Department

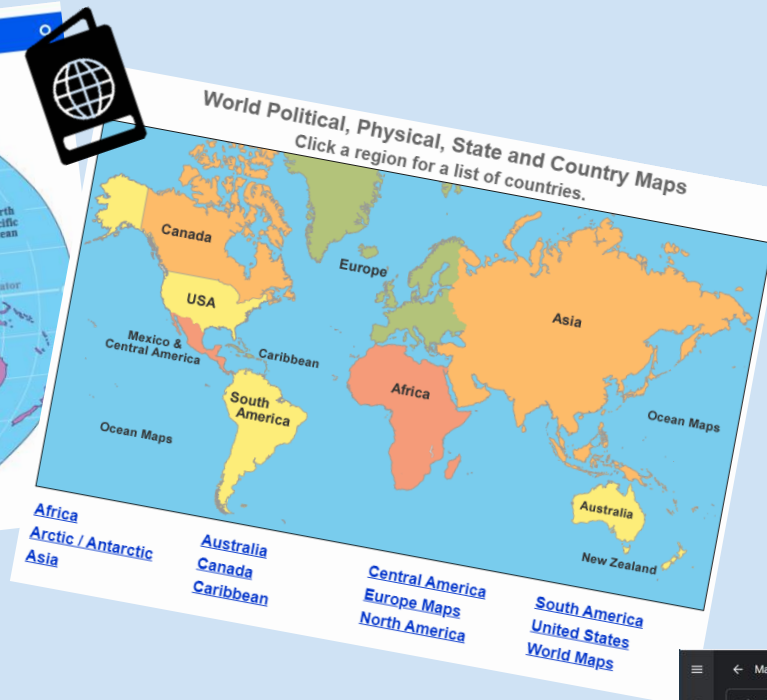
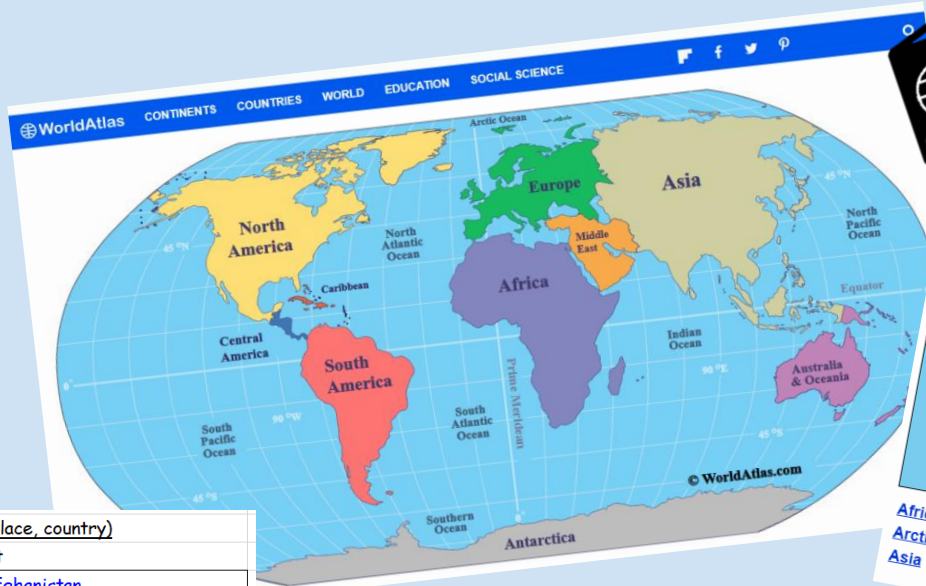
	Autumn (7 weeks)	Spring (7 weeks)	Summer (7 weeks)
W 7	Passport to Geography: selected countries Asia + Middle East: (Human - settlement)	Asia + Middle East: Physical - Rivers + Flooding	Environmental concern Plastics: The Blue Planet effect
W 8	The Atmosphere The Geography of Fashion	Coasts Tourism	Travelling Asia
W 9	Regeneration + Poverty	Africa	India
W 10	2) Development Dynamics	4) UK Physical Landscapes	4.2) Coasts
W 11	1) Hazardous Earth 6) UK Human Landscape + Stratford Fieldwork	4.1) Rivers 5) The Biosphere	6) Seaford Fieldwork 9) Consuming energy resources
W 12	3) Challenges of an Urbanising World	6) Forests under threat	Tectonic Processes + Hazards Health, Human Rights + Intervention
W 13	Water cycle + Water insecurity	Superpowers	Synoptic Paper 3
NEA	Carbon Cycle + Energy Security		



English Curriculum: Year 7-9

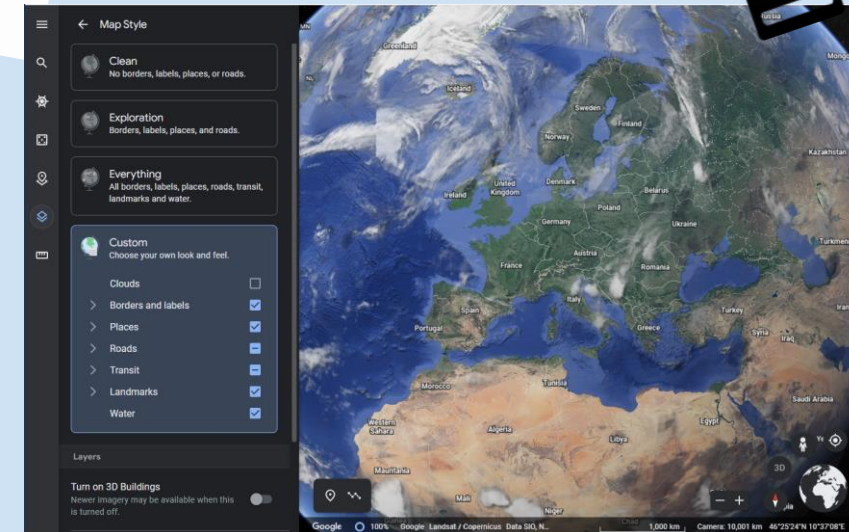


GI PEDAGOGY



Case-study (place, country)	
Yr 7 passport	
	Afghanistan
	Canada
	China
	France
	Greece
	India
	Italy
	New Zealand
	South Africa
	Spain
	Ukraine
	United Kingdom of Great Britain and Northern Ireland

Use
GIS Visualisers



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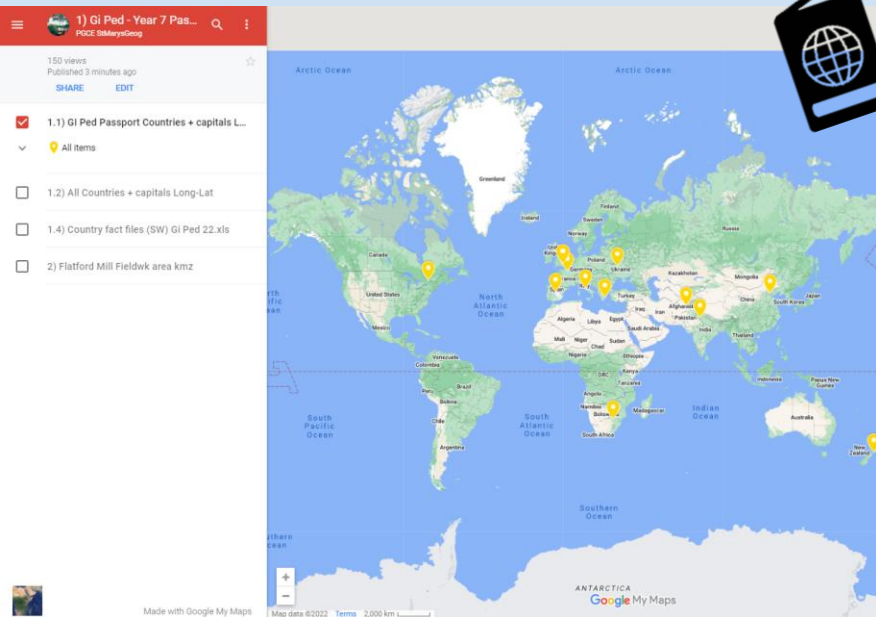


English Curriculum: Year 7-9



GI PEDAGOGY

Add data +
photos to your
GIS visualiser



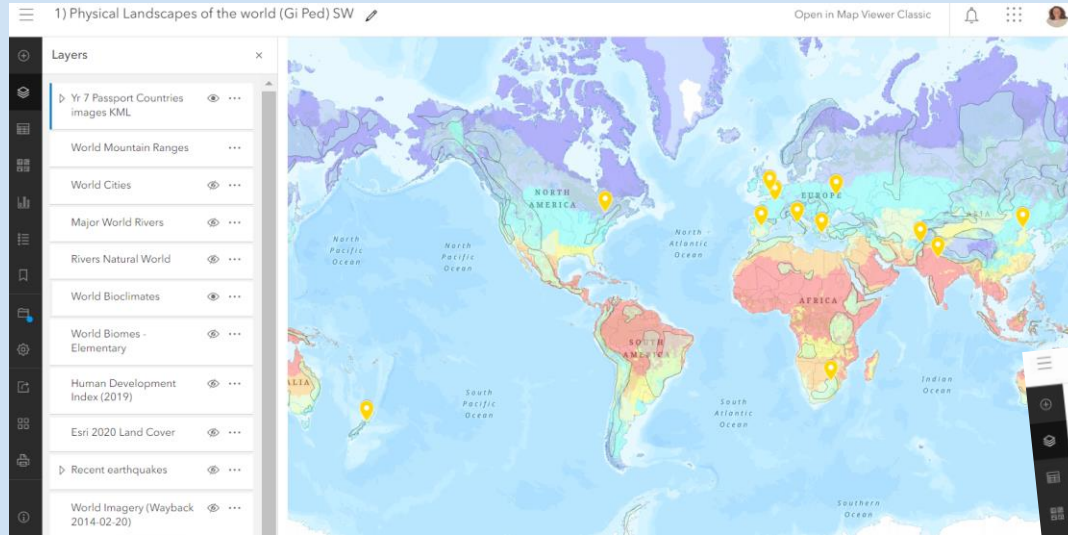
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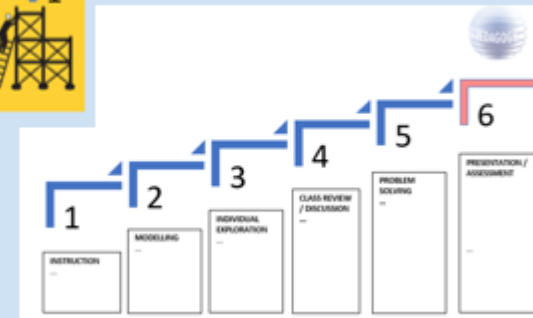
English Curriculum: Year 7-9



GI PEDAGOGY



Work
with GIS
layers

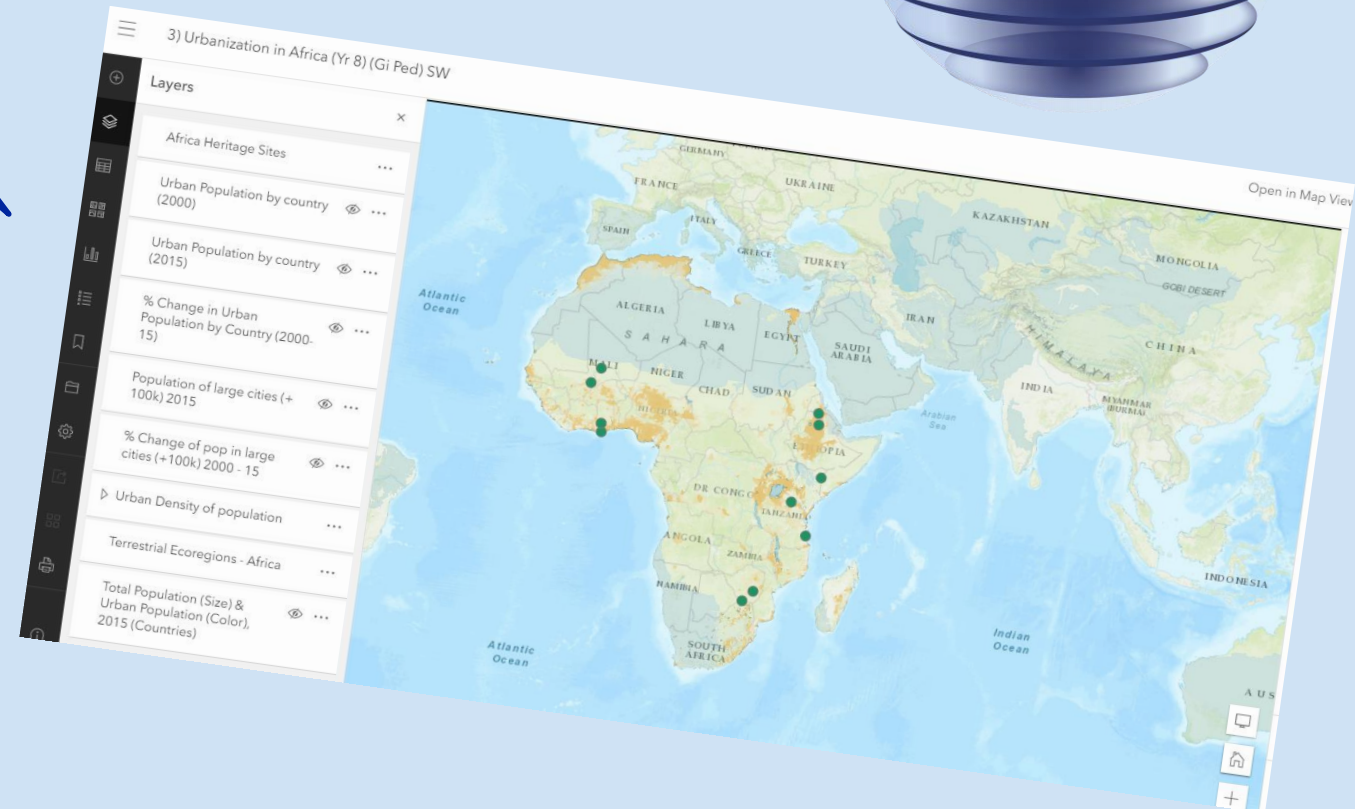
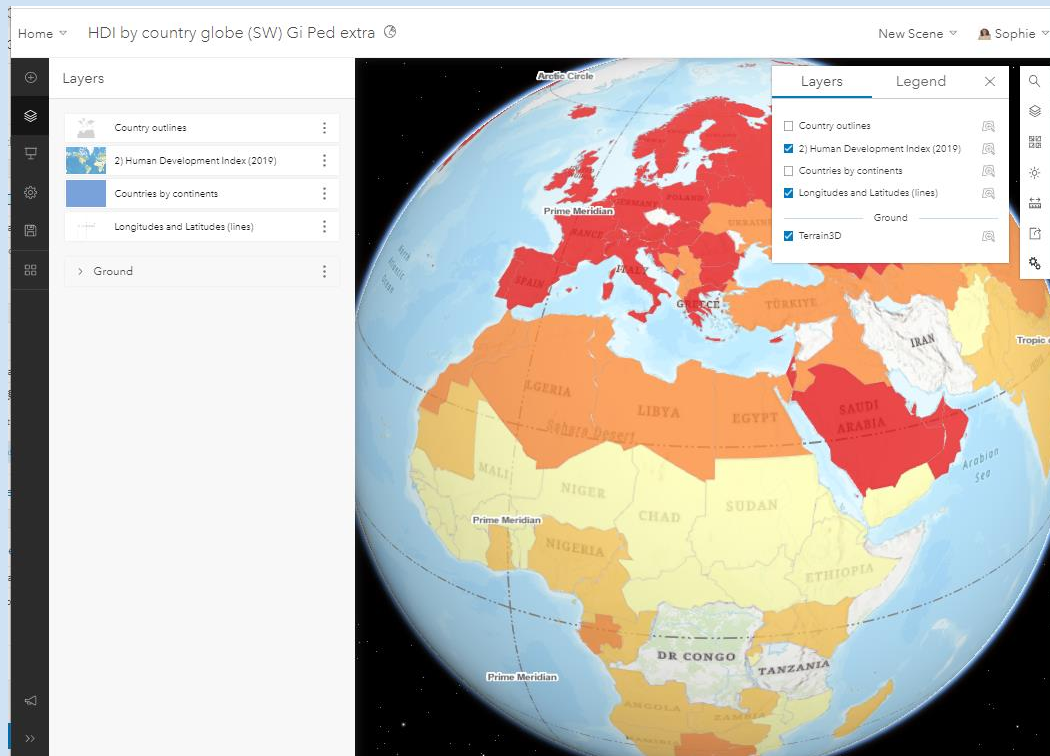


English Curriculum: Year 7-9



GI PEDAGOGY

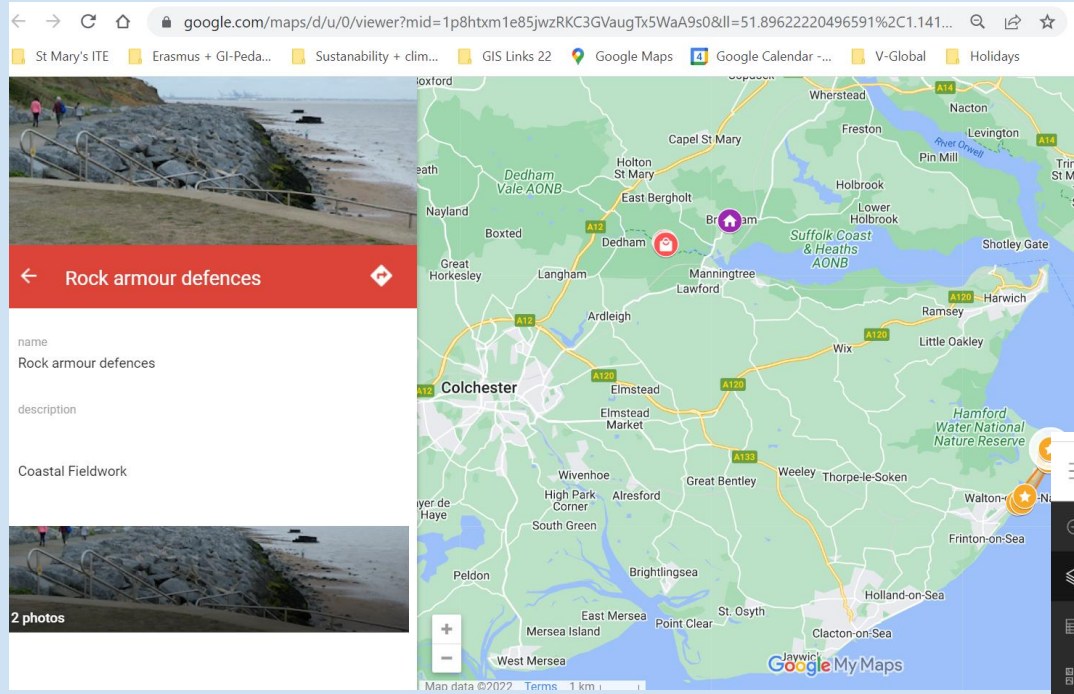
Work with
GIS
layers



English Curriculum: Year 7-9

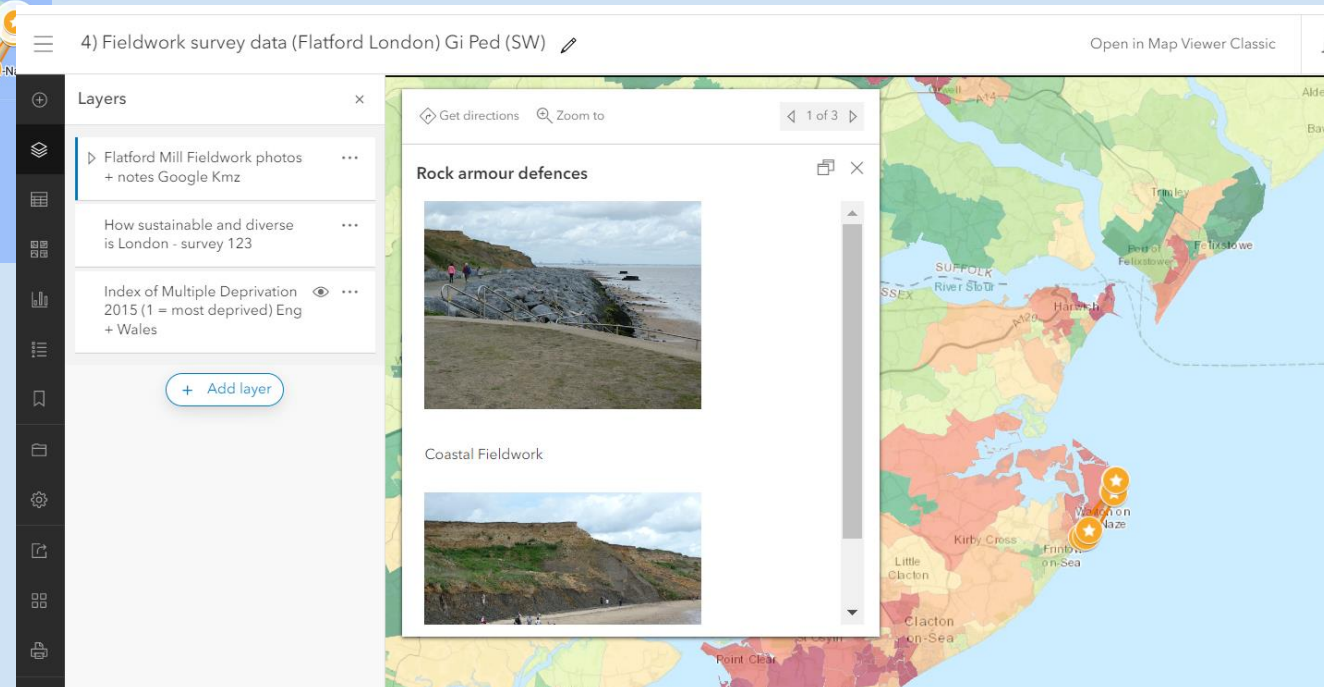


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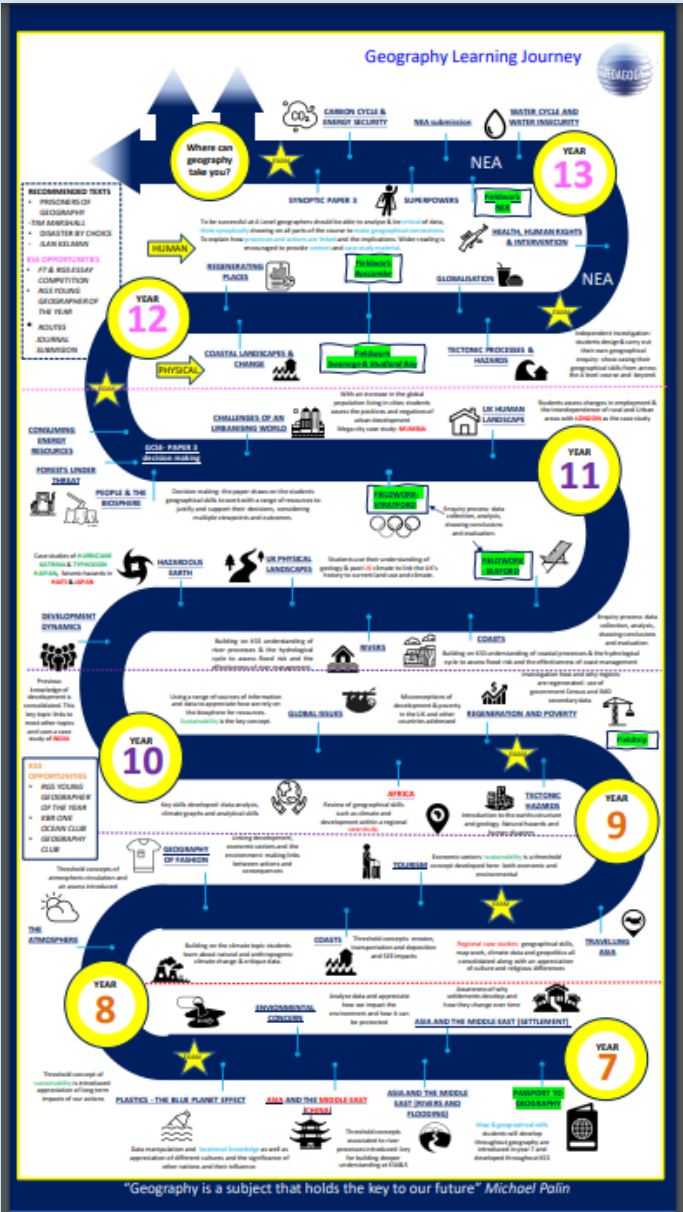


Add data +
photos to your
GIS layers

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English Curriculum: Year 10-13



Sequence of lessons

Geography Department

	Autumn (2 weeks)	Spring (2 weeks)	Summer (2 weeks)
Yr 7	Passport to Geography: selected countries	Asia + Middle East: Physical - Rivers + Flooding	Environmental concern
	Asia + Middle East: (human - settlement)	Asia + Middle East: China	Plastics: the Blue Planet effect
Yr 8	The Atmosphere	Coasts	Travelling Asia
	The Geography of Fashion	Tourism	
Yr 9	Tectonic hazards	Africa	India
	Regeneration + Poverty	Global issues	
Yr 10	2) Development Dynamics	4) UK Physical Landscapes	4.2) Coasts
	1) Hazardous Earth	4.1) Rivers	6) Seafood Fieldwork
Yr 11	6) UK Human Landscape + Stratford Fieldwork	7) People + the Biosphere	9) Consuming energy resources
	3) Challenges of an Urbanising World	8) Forests under threat	
Yr 12	Regenerating Places	Boscombe/Swanage + Studland Fieldwork	Tectonic Processes + Hazards
	Coastal Landscapes + Change	Globalisation	Health, Human Rights + Intervention
Yr 13	Water cycle + Water Inequity	Superpowers	Synoptic Paper 3
	NEA	Carbon Cycle + Energy Security	

2021-22

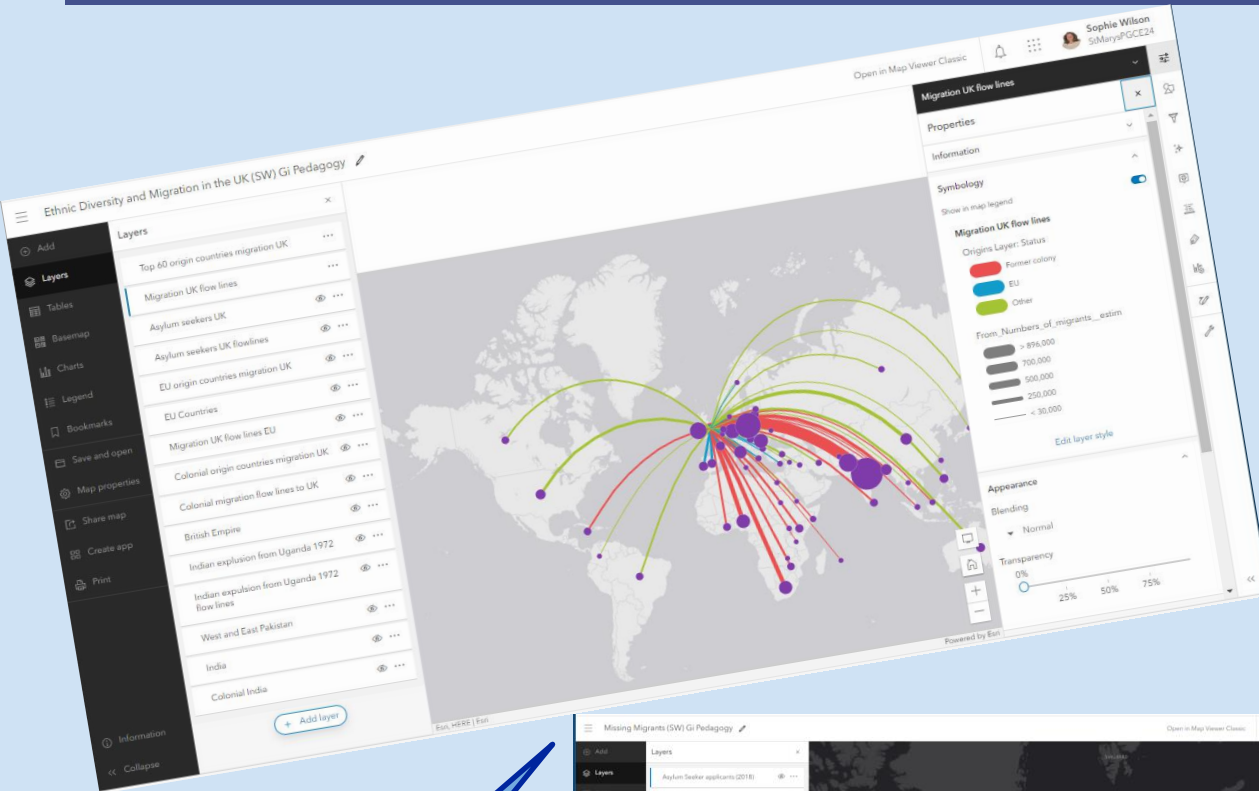
Yr 9				
<u>Thematic</u>		<u>Case-study (place, country)</u>		
Tectonics	Africa	Recent earthquakes	(live feed)	
		Tsunami elevation tool	*app	
Regeneration/urban	India	Unequal Mumbai	info	
Globalisation	UK			
Development in UK				
Global issues		UNHCR Population of Concern per country	*refugees and asylum seekers	
		Commonwealth countries	*app	

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English Curriculum: Year 10-13

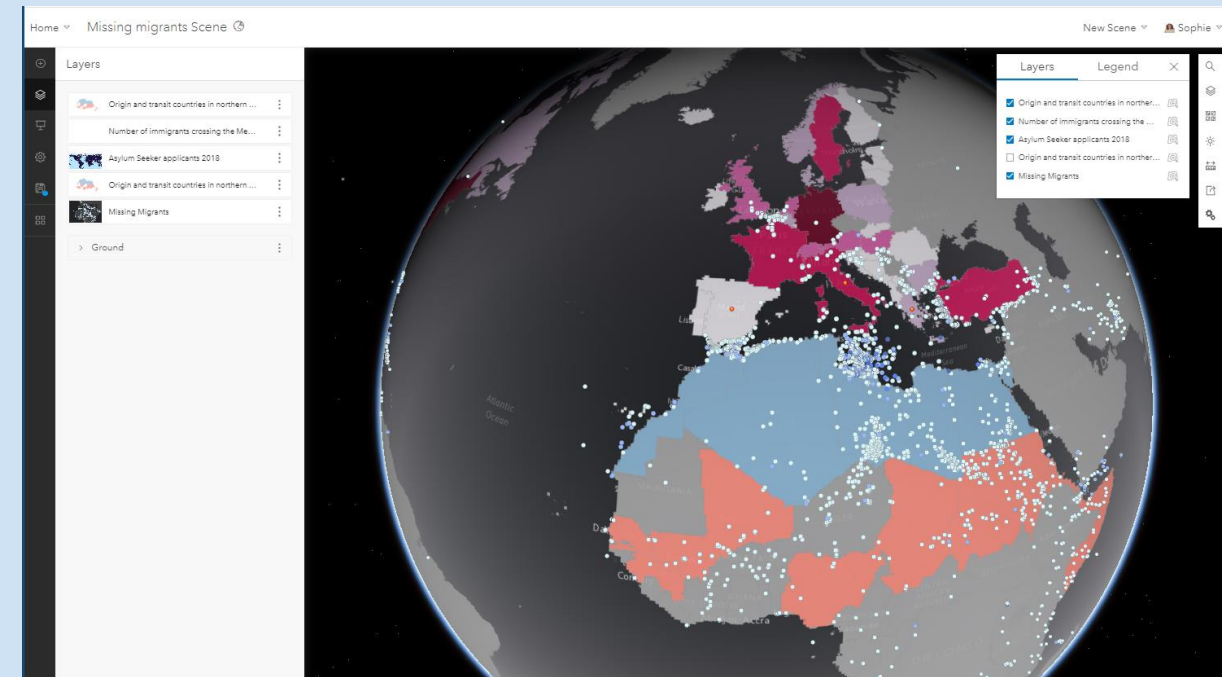


Sequence of lessons		Geography Department	
	Autumn (7 weeks)	Spring (7 weeks)	Summer (7 weeks)
W 7	Passport to Geography: selected countries	Asia + Middle East: Physical - Rivers + Flooding	Environmental concern
W 8	Asia + Middle East: (human - settlement)	Asia + Middle East: China	Plastic: the Blue Planet effect
W 9	The Atmosphere	Coasts	Travelling Asia
	The Geography of Fashion	Tourism	
W 10	Technic hazards	Africa	India
	Regeneration + Poverty	Global issues	
W 11	2) Development Dynamics	4) UK Physical Landscapes	4.2) Coasts
	3) Hazardous Earth	4.3) Rivers	6) Seaford Fieldwork
W 12	6) UK Human Landscapes + Stafford Fieldwork	7) People + the Biosphere	9) Consuming energy resources
	3) Challenges of an Urbanising World	8) Forests under threat	
W 13	Regenerating Places	Boxcombe/Swage + Stafford Fieldwork	Tectonic Processes + Hazards
	Coastal Landscapes + Change	Globalisation	Health, Human Rights + Intervention
W 14	Water cycle + Water inequality	Superpowers	Synoptic Paper 3
N/A		Carbon Cycle + Energy Security	

2021-22

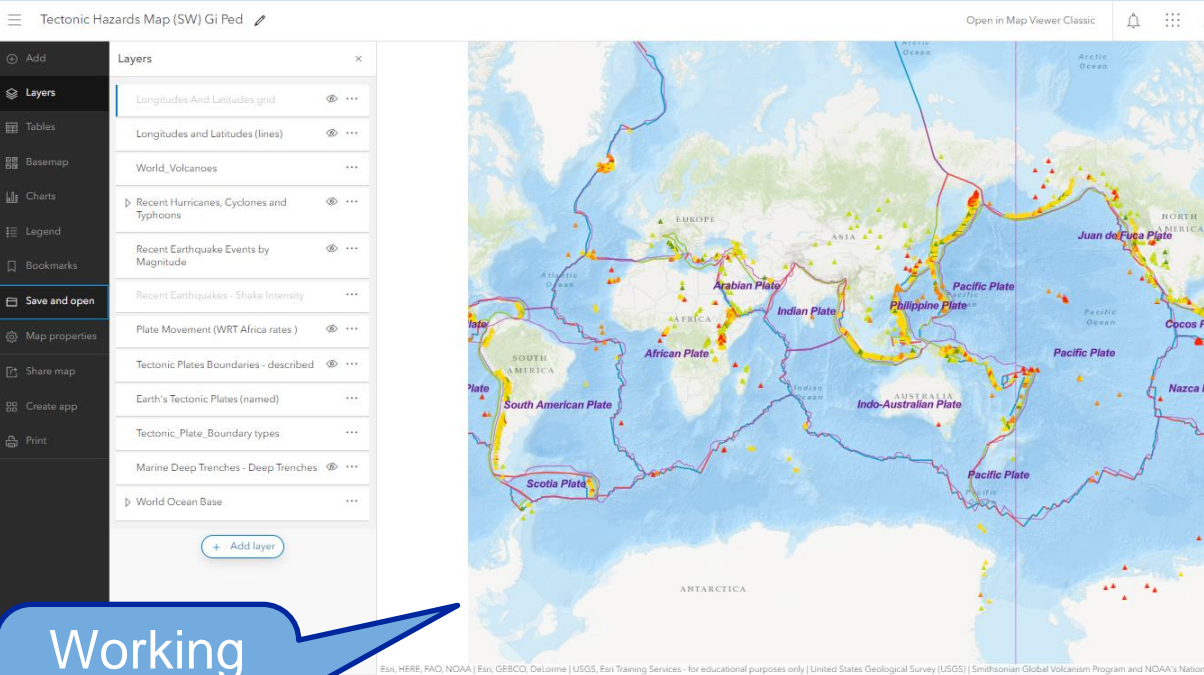
Working with more GIS layers

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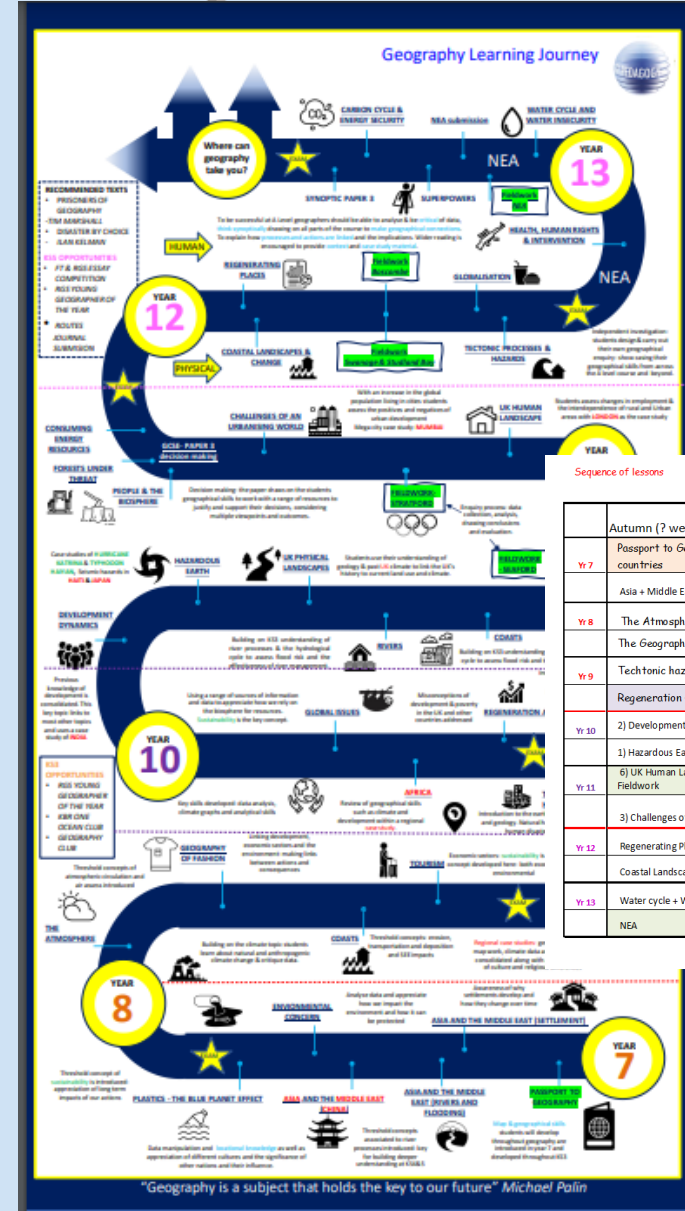


[Uk icons created by Freepik - Flaticon](https://www.flaticon.com/free-icons/uk)

English Curriculum: Year 7-9



Working with GIS layers



	Autumn (? weeks)	Spring (? weeks)	Summer (? weeks)
Yr 7	Passport to Geography: selected countries	Asia + Middle East: Physical - Rivers + Flooding	Environmental concern
Yr 8	Asia + Middle East: (Human - settlement)	Asia + Middle East: China	Plastics: the Blue Planet effect
Yr 9	The Atmosphere	Coasts	Travelling Asia
Yr 10	The Geography of Fashion	Tourism	
Yr 11	Tectonic hazards	Africa	India
Yr 12	Regeneration + Poverty	Global issues	
Yr 13	Development Dynamics	4.1) Rivers	4.2) Coasts
Yr 14	1) Hazardous Earth	2) People + the Biosphere	3) Consuming energy resources
Yr 15	2) Development Dynamics	3) Challenges of an Urbanising World	4) Forests under threat
Yr 16	3) Challenges of an Urbanising World	4) Forests under threat	5) Regenerating Places
Yr 17	4) Forests under threat	5) Regenerating Places	6) Coastal Landscapes + Change
Yr 18	5) Regenerating Places	6) Coastal Landscapes + Change	7) Globalisation
Yr 19	6) Coastal Landscapes + Change	7) Globalisation	8) Health, Human Rights + Intervention
Yr 20	7) Globalisation	8) Health, Human Rights + Intervention	9) Synoptic Paper 3
Yr 21	8) Health, Human Rights + Intervention	9) Synoptic Paper 3	

Yr 9	Thematic	Case-study (place, country)		
Tectonics	Africa	Recent earthquakes	(live feed)	
Regeneration/urban	India	Tsunami elevation tool	*app	
Globalisation	UK	Unequal Mumbai	info	
Development in UK		UNHCR Population of Concern per country	*refugees and asylum seekers	
Global issues		Commonwealth countries	*app	

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Conclusion: Locational knowledge and developing a sense of place



- Importance of lesson planning
- Geography Department Teamwork
- Importance of sharing best practice and ideas

Engage with the Geography community of practice:

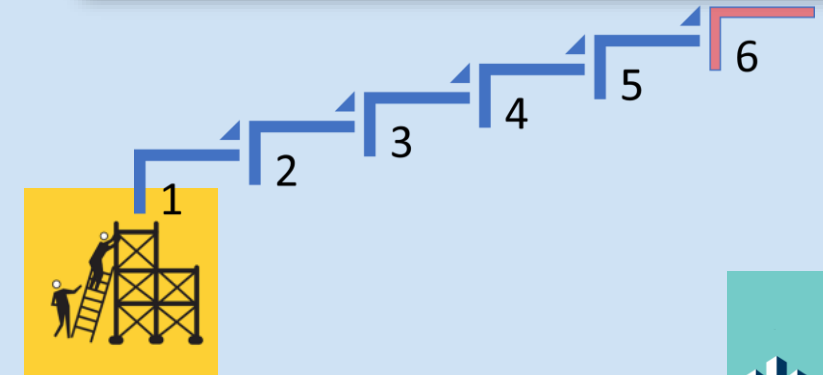
Different levels and commitment:

- ☐ Subject Associations:
 - Geographical Association
 - Royal Geographical Society
- ☐ Twitter - #geography teacher #GIS
- ☐ Teacher Blogs-websites...



Module 3: Sequencing/integrating GIS into the curriculum

Sophie Wilson, Miguel A. Puertas



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