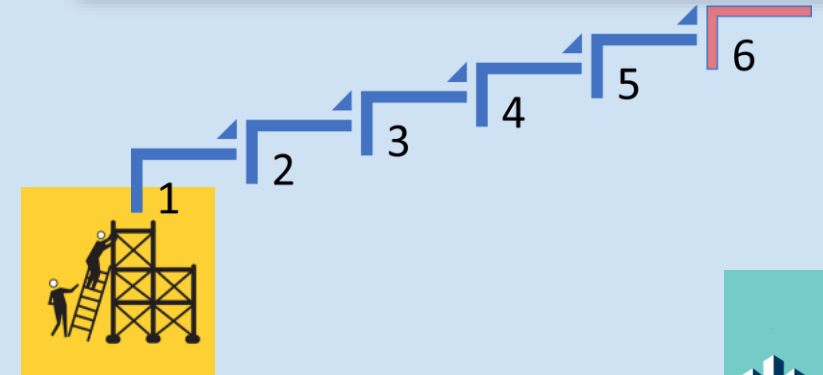


# Module 3: Sequencing/integrating GIS into the curriculum

## 1) Curriculum Sequencing

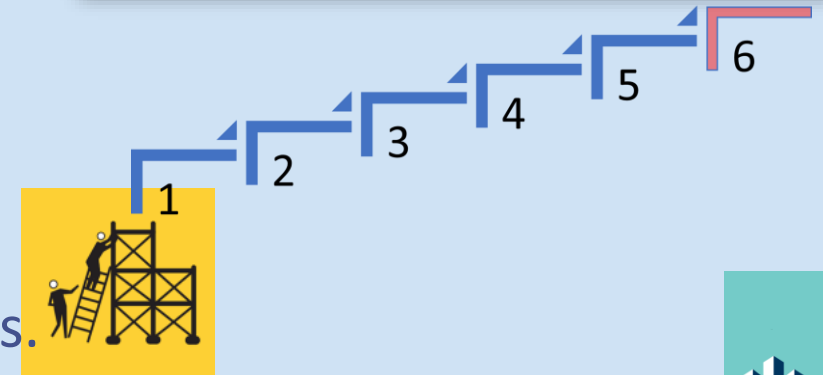




# Module 3: Sequencing/integrating GIS into the curriculum

## Introduction

- What does **curriculum sequencing** mean?
- How can we **integrate GIS** into the curriculum to:
  - ☐ to create a **sense of place**
  - ☐ develop **locational knowledge**?
  - ☐ sequencing examples from the English + Spanish curriculums.



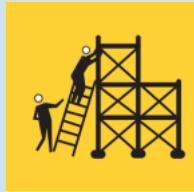


# What does sequencing the curriculum mean?

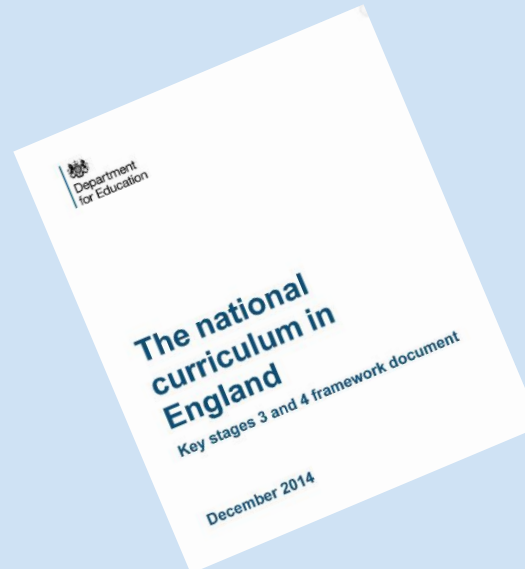
- **Integration of GIS** in the national curricula, has been done by drawing on **Rosenshine's Principles of Instruction**



This has been done by using the scheme of work and curriculum plans from both the **English** and **Spanish** curriculum



- Locational knowledge
- Sense of Place
- Curriculum content
- Use of GIS to develop spatial literacy
- Sustainability
- Knowledge and Competencies

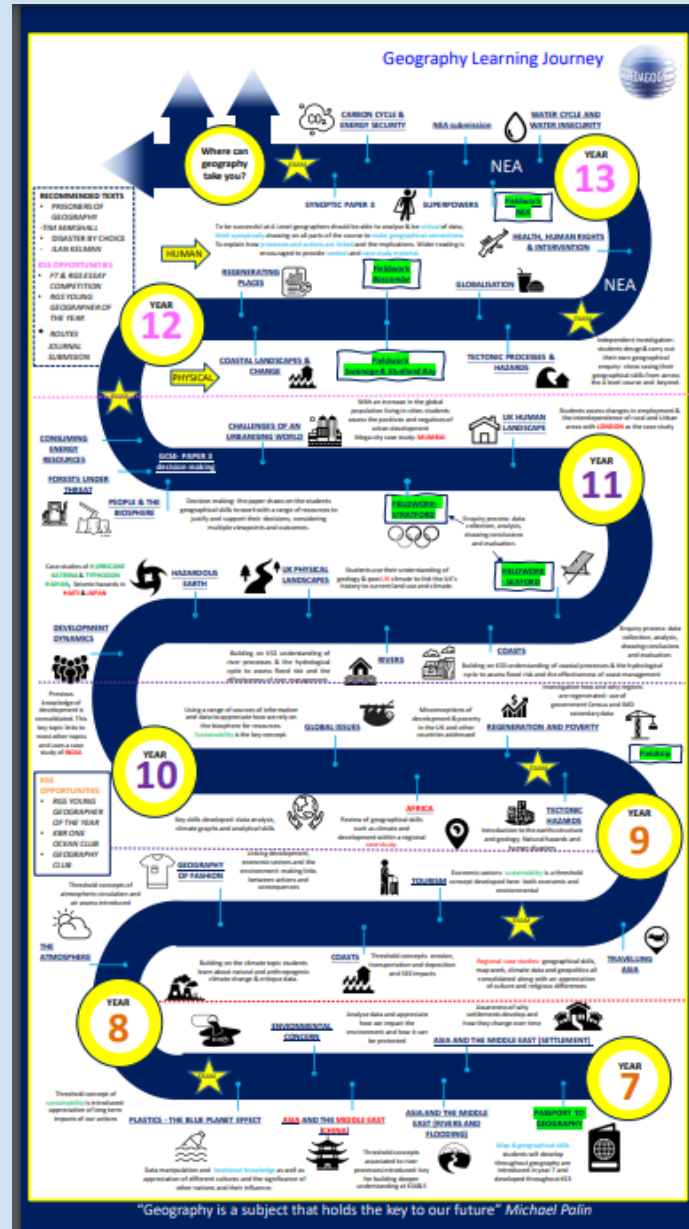




# English Curriculum: Sequencing mapped



GI PEDAGOGY



Sequenced knowledge – identify opportunities for teaching with GIS in YOUR curriculum





# English Curriculum: Sequencing mapped



Sequence of lessons

Geography Department

	Autumn (? weeks)	Spring (? weeks)	Summer (? 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) Seaford 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 Insecurity	Superpowers	Synoptic Paper 3
	NEA	Carbon Cycle + Energy Security	

GI PEDAGOGY

Identify opportunities for teaching with GIS in YOUR curriculum





# Keep in mind

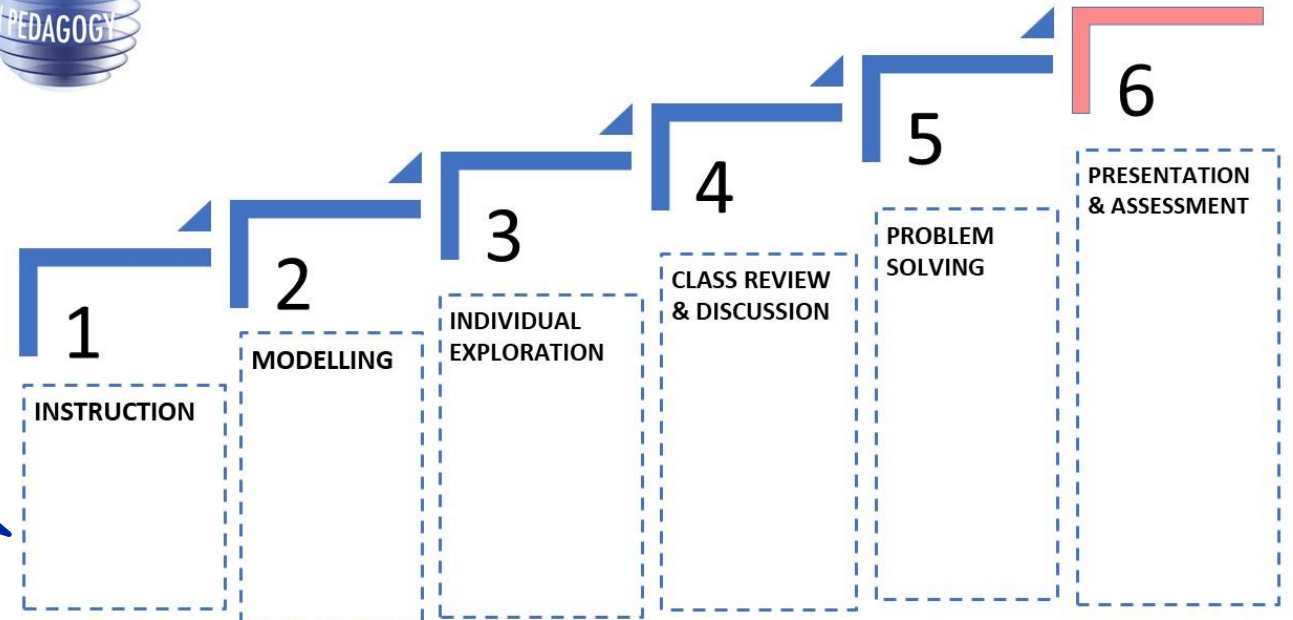


Source: [United Nations](https://www.un.org/sustainabledevelopment/)

Sequence curriculum content knowledge and technical skills carefully

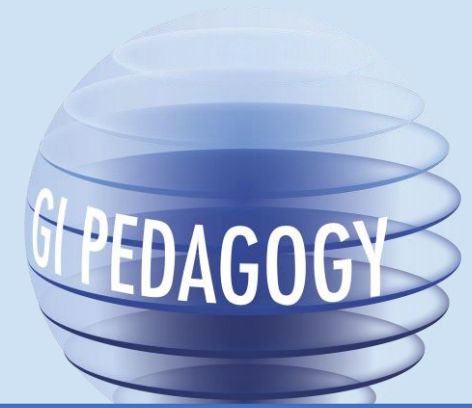
Link curriculum topic to the Sustainable Development Goals


GI PEDAGOGY





# Integrating GIS into the curriculum



Topic	Curriculum	Define knowledge, skills and competencies to enhance	Create a case-study	Select GIS	Select technical competency complexity level for GIS use
<p>Identify a suitable topic to teach with GIS. Link to sustainability (SDGs)</p> <div> <div>Gi Pedagogy: Concept Cube</div>  </div>	<p>Must teach a curricular topic. Link your topic to curriculum in order to make it clear.</p>	<p>Must define knowledge you want your students to achieve. Include skills and competencies you want to work. These may be determined by the curriculum or selected by the teachers due to students needs</p>	<p>Create or use an already created case study upon the principles of instruction. This case study will permit achievement of objectives and assess students</p>	<p>Select a GIS tool or map to support your teaching, taking into account previous experience of using GIS – making sure a stepped approach is used.</p>	<p>According to your students GIS experience and the time you have to develop the topic, choose complexity level. The goal is making it possible for your students to create. Again, step by step</p>



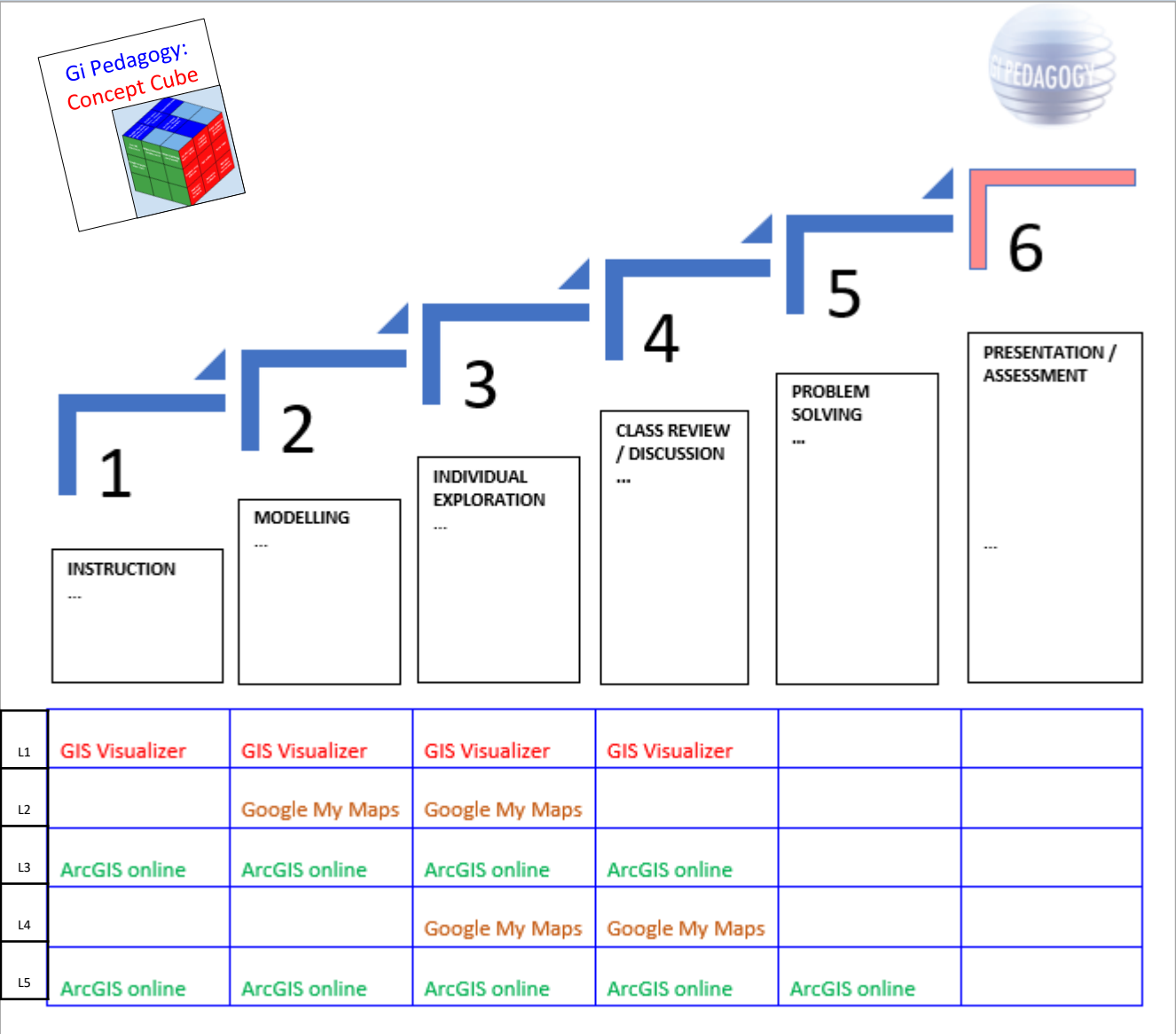


# Curriculum: GIS Sequencing

Assess your GIS competency level (L1 – L5) for teaching with GIS in the curriculum?

L1: Virtual globe
L2: Add own information + images to virtual globe (Ltd)
L3: Add this data as a KMZ file to Arc GIS layers
L4: Working with layers
L5: Use more layers + collect own data

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= checking understanding



# Integrating GIS into the curriculum - Final objective



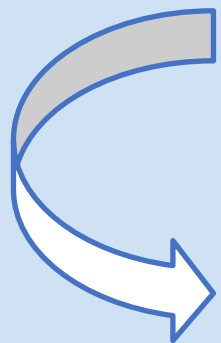
Sustainable  
Curriculum



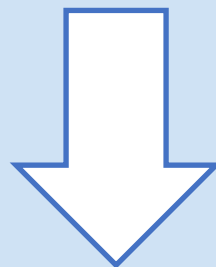
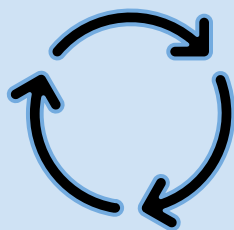
Principles of  
Instruction



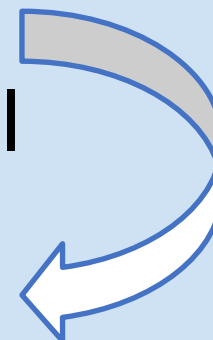
Use of  
GIS



Geographical  
Content  
Knowledge



Technical  
Competency Level



Locational  
Knowledge  
of places

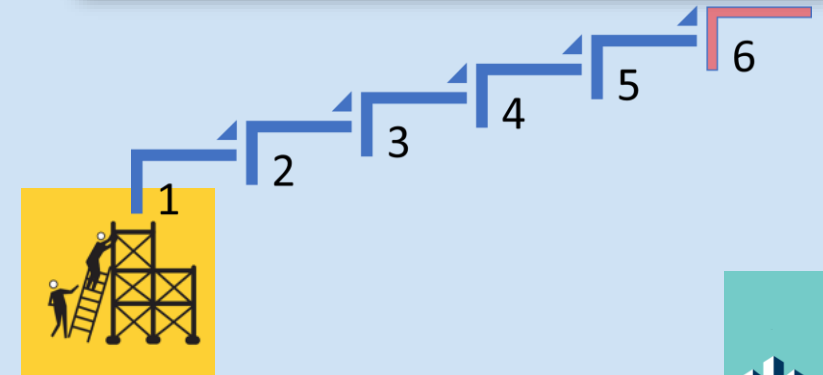
Powerful Disciplinary Knowledge





# Module 3: Sequencing/integrating GIS into the curriculum

Sophie Wilson, Miguel A. Puertas



Co-funded by the  
Erasmus+ Programme  
of the European Union



Agreement number  
2019-1-UK01-KA203-061576  
<http://www.gi-pedagogy.eu>



St Mary's  
University  
London

