



Y7 Independent Learning Task

Subject:	Mathematics			
ILT #1	Maths in Nature			
Week set:				
Duration:	Approximately 1 to 1 ½ hours			
Hand in:				
Instructions :	On paper or digitally, create a poster, leaflet or presentation showing examples of mathematics in nature and explain the maths behind it.			
Skills:	This task develops students' ability to: • Identify mathematics in the real world. • Explain mathematical ideas clearly. • Research and evaluate information. • Present information creatively. • Use mathematical vocabulary accurately. • Make connections between mathematics and nature. • Develop independence and curiosity.			
Marking schema:		Developing	Proficient	Advanced
	Assessment Area	Emerging	Secure	Excelling
	M athematical Understanding	Identifies some examples of mathematics in nature with limited explanation.	Correctly explains the mathematics behind several examples.	Gives clear, accurate and detailed mathematical explanations, making links between ideas.
	A pplication of Mathematics	Identifies mathematical ideas but with limited variety.	Applies at least three different mathematical concepts accurately.	Applies a wide range of mathematical ideas and explains why they occur in nature.
	T hinking & Communication	Communicates ideas with some mathematical vocabulary.	Presents ideas clearly using appropriate mathematical vocabulary and explanations.	Communicates confidently using precise mathematical language, diagrams and well-organised explanations.
	H abits of Independent Learning	Completes the basic task with some support.	Works independently, researches examples and meets all mission requirements.	Shows initiative by researching beyond the task, making thoughtful choices and demonstrating curiosity.

	Stretch & Challenge	Meets the core expectations of the task.	Completes one or more Level Up Challenges.	Produces work that goes beyond expectations through additional research, deeper explanations or original examples.
Additional guidance or help:	Need ideas? Think about: • Why do honeycombs use hexagons? • Why do sunflowers form spirals? • Why do snowflakes have six sides? • Where can symmetry be found in plants and animals? • Can you find examples in your garden, local park or on a walk? For an extra challenge: • Explain why these patterns occur. • Research the Golden Ratio. • Find examples that most people would not notice. Explain how scientists use mathematics to understand nature.			