

Y8 Independent Learning Task

Subject:	Mathematics			
ILT #5	Mathematician Biography			
Week set:				
Duration:	Approximately 1 hour			
Hand in:				
Instructions :	Choose a mathematician to research and create an informative and engaging biography. Include key facts about their life and education, explain their main mathematical contributions, describe challenges they faced and how they overcame them, and explain how their work has impacted the world. Present the biography in an interesting and creative way.			
Skills:	This task develops students' ability to: • Research and information literacy – locating, selecting and summarising useful information. • Mathematical communication – explaining mathematical ideas and contributions accurately. • Critical thinking – deciding which facts and achievements are most significant. • Organisation – structuring information into a coherent life story. • Creativity – choosing an engaging format and presentation style. • Independence – planning, completing and checking a sustained research task. • Reflection and cultural awareness – recognising how people, perseverance and context shape mathematics.			
Marking schema:		Developing	Proficient	Advanced
	Assessment Area	Emerging	Secure	Excelling
	Mathematical Understanding	Identifies some mathematical work or ideas, but explanations may be brief, vague or contain inaccuracies.	Accurately explains the mathematician's main mathematical contributions using appropriate mathematical language.	Shows detailed understanding of the contributions and clearly explains their significance, connections and lasting mathematical impact.
	Research & Use of Information	Includes some relevant facts, but research may be limited, poorly selected or not clearly organised.	Selects relevant facts about the mathematician's life, education, challenges and achievements and organises them coherently.	Uses a rich range of well-chosen information, distinguishing the most important events and ideas and weaving them into an insightful account.

	Thinking & Communication	Communicates the main points, but explanations or structure may sometimes be unclear.	Presents information clearly and engagingly, explaining how the mathematician's work affected mathematics or the wider world.	Communicates with precision and insight, making thoughtful links between the mathematician's life, challenges, ideas, achievements and legacy.
	Habits of Independent Learning	Completes the main research task with some support; checking, organisation or reflection may be limited.	Researches, plans, completes and reviews the biography independently, presenting accurate work with care.	Shows strong independence and initiative by researching beyond the obvious, checking information carefully and refining the final presentation.
	Stretch & Challenge	Meets the core expectations of the biography task.	Completes one or more Level Up Challenges, such as a timeline, explaining why the work remains important, or exploring a quotation.	Goes well beyond the core task, for example by comparing mathematicians, analysing a quotation or giving a thoughtful explanation of the mathematician's continuing influence.
Additional guidance or help:	Checklist: choose a mathematician; find key facts about their life and education; explain their main mathematical contributions; describe challenges they faced and how they overcame them; explain the impact of their work; present the biography creatively. Possible mathematicians include Ada Lovelace, Alan Turing, Katherine Johnson, Srinivasa Ramanujan, Euclid, Maryam Mirzakhani, Archimedes and Emmy Noether. Presentation ideas include a poster, fact file/leaflet, digital presentation, booklet, photo collage or video. Level Up: create a timeline; explain why their contributions still matter today; include and explain a quotation; or compare their ideas with another mathematician.			