

Year 11 - 2024
INVESTIGATING SCIENCE
M EAGLES



Task Number: 2
Weight: 30%

Notification Date: 1/5/24
Due Date: Friday 9th August 2024
To be handed in by 3.20pm to Ms Eagles

OUTCOMES ASSESSED

- INS11-2 designs and evaluates investigations in order to obtain primary and secondary data and information
- INS11-4 selects and processes appropriate qualitative and quantitative data and information using a range of appropriate media
- INS11-6 solves scientific problems using primary and secondary data, critical thinking skills and scientific processes
- INS11-7 communicates scientific understanding using suitable language and terminology for a specific audience or purpose
- INS11-10 develops, and engages with, modelling as an aid in predicting and simplifying scientific objects and processes

TASK DESCRIPTION

Each student will need to select one focus area (topic) for which they will undertake an investigate in order create a model with a written report.

TASK INSTRUCTIONS

For the chosen topic, each student needs to

- Develop a focus question/s to guide your research.
- Research the focus question/s to obtain data and information by undertaking primary or secondary investigation/s.
- Processes and evaluates the collected data and information so to determine which aspects will be included in the model.
- Use any material or medium to create a model to explain your focus area. This should include meaningful labels of various parts of the model.
- A written explanation of your model and how it responds to your focus question/s.
- Evaluate your model in terms of how it links to your focus question/s and investigation.
- Discuss the use and limitations of models when illustrating scientific concepts.

Assessment Presentation Guidelines

- If a computer problem occurs the assessment must still be submitted on the due date. It may be provided on disk or via email. If this is not possible it may mean handing in a draft copy and evidence of research.
- A model must be submitted at the same time as the report. It is highly recommended that you take photos of your model as you construct just in case something happens and the photos can be handed in as proof of construction.
- Assessments must be your own work
- Assessments must be referenced correctly as per the Year 11 Assessment booklet
- Plagiarism will result in a zero award. Plagiarism is the process of copying other people's work and not acknowledging them. Examples of plagiarism include slabs of information off the net, copied into an assessment and copying the work of others

Teacher's signature: _____ Ms M Eagles

Head Teacher's signature _____ Ms M Eagles

Deputy Principal's signature: _____ Mrs R Ferguson

MARK GUIDELINES

Focus Question	No focus question (0 mark)	Develops a simple focus question (1 mark)	Develops a focus question/s (2 marks)	
Research	No research completed (0 mark)	Some research undertaken to answer the focus question using limited references (1 mark)	Research undertaken and relevant data and information collected with use of at least 3 references. (2 marks)	Comprehensive research undertaken and relevant data and information collected with use of at least 5 references. (3 marks)
Process and evaluation of information and data	No processing or evaluation of information collected (0 mark)	Limited processing or evaluation of research data and information (1 mark)	Some processing and evaluation of research data and information. States which aspect will be modelled. (2 marks)	Processing and evaluation of research data and information. Clearly articulates which aspect of the aspect is going to be modelled. (3 marks)
Model creation	No model completed (0 marks)	Model not answer the focus question (1-4 marks)	Model demonstrates the focus question and research but has a few mistakes/errors (5-7 marks)	Well-constructed model that clearly demonstrates answers the focus question and associated research with the use of meaningful labels (8-10 marks)
Explanation of your model	No explanation or irrelevant explanation (0 marks)	A basic outline to explain the model. (1 mark)	A written explanation of the model and how it links to the focus question/s. (2 marks)	A clear and logical written explanation of the model and how it links to the focus question/s including appropriate use of terminology (3 marks)
Evaluation of model	No evaluation of the model (0 marks)	Outlines some limitations of their model (1 mark)	Evaluation and of the model and some outlines how it links to focus question/s. (2-3 marks)	Comprehensive evaluation that clearly links back to the focus question/s. (4 marks)
Limitations	No discussion of the limitations (0 marks)	Outlines limitation of models (1 mark)	Discuss the use and limitations of models when illustrating scientific concepts. (2 marks)	
Referencing	Only writes limited referencing information (0 marks)	Uses at least 3 references. Attempts to reference as per the Yr 11 Assessment Booklet. Some errors present (1-2 marks)	Uses at least 5 references. Referencing in the correct format as per the Yr 11 Assessment Booklet (3 marks)	
			Total Total	30

Task Mark	Task Rank	Cumulative Rank

Comment

Teacher signature _____ Date _____