

Marking rubric: Portfolio (Due term 3 week 4 Wednesday 14<sup>th</sup> August)

Grade		A	B	C	D	E	0	TOTAL
Grade descriptions		Has achieved a extensive level of competence in the processes and skills and can apply these skills to new situations.  <b>EXTENSIVE</b>	A thorough level of competence in the processes and skills. In addition, the student is able to apply these skills to most situations.  <b>THOROUGH</b>	An sound level of competence in the processes and skills.  <b>SOUND</b>	A basic level of competence in the processes and skills.  <b>BASIC</b>	Very limited competence in some of the processes and skills.  <b>LIMITED</b>	Not attempted/ Copied and pasted	
Title/abstract	Investigation and model	5 Sophisticated title given and scientific terms used Sophisticated (one succinct paragraph, 3 statements supported by research. Mostly correct spelling, grammar and punctuation), overview of the project extensive use of scientific terminology.	4 Sophisticated title given and scientific terms used Well constructed (one paragraph, occasional spelling, grammar and punctuation mistakes) overview of project included with good use of scientific terminology. Terms used	3 Appropriate title given and a scientific term used  Some details (2-3 sentences, obvious mistakes on spelling, grammar and punctuation) about project included with a some use of scientific terminology.	2 Appropriate title given and a scientific term used  Brief outline of project. Many spelling, grammatical and punctuation mistakes. No use of scientific terminology.	1 Simple title used  Minimal relevant provided about project	0	WS 4
Purpose/expectation  <b>OR</b>	Investigation  AIM and HYPOTHESIS (variables)	5 Correct aim used, starts with "To", correctly links IV and DV together and scientific terms used Correct hypothesis used, correctly links IV and DV together and scientific terms used. "If... then..." statement used. Correct list of the dependent, independent and controlled variables. Description of 'the control'	3 Correct aim used and a scientific term used. No link between IV and DV Appropriate hypothesis used, links IV and DV together (may not be correct) and a scientific term used	2 Simple aim listed, not link between IV and DV Some variables listed but incorrect.	1 Simple aim used, not appropriate for investigation  Expectation given, not correct format	0	/10	
	Model  PURPOSE and INTENTION	5 Correct purpose of the model/invention. Scientific terms used  Intention is highly detailed including a chosen audience. concept/s aiming to be conveyed are clear and concise. Scientific language is sophisticated.	3 Appropriate purpose of model/invention. Minimal scientific terms used Intention is clear, including audience chosen audience. Concepts aiming to be conveyed are	2 Purpose of model/invention, may not be appropriate. No scientific terms used Intention is simple	1 Simple purpose  Intention given lacks detail (vague)	0		
Materials/risk assessment  <b>OR</b>	Investigation  RISK ASSESS and EQUIPMENT LIST	5 Meticulous list given, all equipment needed is listed with correct quantities  All dangers (hazards/risks) identified (minimum 3) and describes how to reduce these dangers. Very detailed	4 Comprehensive list given (1-2 items missing), equipment needed is listed, correct quantities given Most dangers (hazards/risks) identified (minimum 3) and describes how to reduce these dangers. Some detail.	3 Most of equipment needed (3-4 missing), no quantities given  Most dangers (hazards/risks) identified (minimum 2) and attempts to link to how to reduce the danger	2 Most of the equipment needed is listed (missing more than 5), no quantities given  Some dangers (hazards/risks) identified and attempts to link to how to reduce the danger	1 Minimal equipment is listed  Some dangers (hazards/risks) identified No reduction for dangers given	0	WS 5
	Model/Diorama/ Invention  RISK ASSESS and BACKGROUND RESEARCH	5 Minimum of two paragraphs including a succinct history on the development of the concept and a justification on why the concept was chosen. Scientific language is extensive and used correctly All dangers (hazards/risks) identified (minimum 3) and describes how to reduce these dangers. Very detailed	4 Minimum of two paragraphs. Including some information on the history of the concept and explanation of why the concept was chosen. Some scientific language is correct and used. Most dangers (hazards/risks) identified (minimum 3) and describes how to reduce these dangers. Some detail.	3 One paragraph of general information relating to the concept and reasons why the concept was chosen. An attempt at using scientific terms Most dangers (hazards/risks) identified (minimum 2) and attempts to link to how to reduce the danger	2 2-3 sentences of background information related to the concept  Some dangers (hazards/risks) identified and attempts to link to how to reduce the danger	1 Short statement relating to research  Some dangers (hazards/risks) identified No reduction for dangers given	0	

<b>Journal/ procedure</b>	<b>Investigation</b>	8-7 6 or more dates included, extremely detailed and specific  Clear and logical method in third person. Need to be in correct order, detailed and in numbered steps. Include how the dependent variable will be measured, along with any other variables are controlled. Include how many times the experiment will be repeated. Scientific terms used and at an extensive level. No use of "I" or "we". (past tense)	-5 5 dates included, extremely detailed and specific  Clear and logical method in third person. Need to be in correct order, numbered steps. Include how the dependent variable will be measured, along with any other variables. Links to repetition. Some scientific terms used and at a thorough level. No use of "I" or "we". (past tense)	4-3 4 dates included, some detail  Logical method in third person. Need to be in correct order, numbered steps. Includes a link to the dependent variable, Links to repetition. Some scientific terms used and at a sound level. Use of "I" or "we" only once (past tense)	2 3 dates included, extremely detailed and specific  Method attempted. In numbered steps. Link to a variable. Minimal scientific terms used and at a basic level.	1 Less than 3 dates included minimal detail  Method attempted. In numbered steps. Minimal scientific terms used and at a elementary level.	0	
	<b>OR</b>	<b>Model/Diorama/ Invention</b>	8-7 6 or more dates included, extremely detailed and specific  Logical format (in correct sequence) Design information is comprehensive and can be easily replicated exactly. All quantities are evident. Detailed and labelled diagrams included. Sophisticated use of Scientific language and written in 3 <sup>rd</sup> person	6-5 5 dates included, extremely detailed and specific  Logical format (mostly in correct sequence) Design information is clear and can be almost replicated exactly. Quantities given (not all) Includes a labelled diagram. Thorough use of scientific language used and written in 3 <sup>rd</sup> person	4-3 4 dates included, some detail  Logical format but has minor mistakes. Some parts can be replicated. Some quantities missing. Attempt at using scientific terms. 3 <sup>rd</sup> person used	2 3 dates included, extremely detailed and specific  Design details attempted and are illogical. Simple diagram given. Not written in 3 <sup>rd</sup> person. Minimal use of scientific terms.	1 Less than 3 dates included minimal detail  Lists unclear design details. Some information is irrelevant. Methodology cannot be replicated	
<b>Results</b>	<b>Investigation</b>	10-9 Includes tables, graphs and photographs and/or diagrams. Labels, units, format, averages, all included and correct.	8-7 Includes tables, graphs and a photograph and/or diagram. Labels, units, format, averages, all included and all correct (one or two parts not	6-5 Includes table and graph and a photograph and/or diagram. Labels, units, format, averages, all included and mostly correct	4-3 Includes table and graph. Labels, units, format, averages, mostly included and some correct.	2-1 Includes table or graph. One or two of the following included: Labels, units, format, averages.	0	<b>WS 7</b>
	<b>OR</b>	<b>Model/Diorama/ Invention</b>	10—9 3 or more diagrams/pictures. 5 or more clear labels of parts of invention/model. Annotated photos and diagrams	8-7 2 or more diagrams/pictures. 4 or more clear labels of parts of invention/model/diorama	6-5 2 or more diagrams/pictures. 3 or more clear labels of parts of invention/model and the aspect of concept it relates	4-3 A diagram/picture. 2 or more clear labels of parts of invention/model and the aspect of concept it relates to	2-1 A diagrams/pictures. 1 or more somewhat relevant label and the aspect it relates to	
<b>Discussion</b>	<b>Investigation</b>	10-9 Broken into clear paragraphs including sub-headings. At least one paragraph each extensively evaluating the accuracy, reliability and validity of the investigation using actual data/examples. Also suggests 3 or more improvements. Identify trends in the data. Critically compared with other scientific research. 3 or more possible applications explored in depth (one paragraph each)	8-7 Broken into clear paragraphs. At least one paragraph each thoroughly evaluating the accuracy, reliability and validity of the investigation using actual data/examples. Also suggests 2 or more improvements. Mentions some trends in data. Compared with other scientific research. 2 or more possible applications explored.	6-5 Broken into clear paragraphs. At least two sentences each evaluating the accuracy, reliability and validity of the investigation using some actual data/examples. Also suggests one or more improvements 2 or more possible applications mentioned. No mention of trends in data.	4-3 Broken into some clear paragraphs. At least four sentences total evaluating two of the following: accuracy, reliability and/or validity of the investigation using some actual data/examples. Also suggests one or more improvements one or more possible applications mentioned	2-1 Some discussion of investigation strength and/or weaknesses and/or suggests improvements.	0	

<b><u>OR</u></b>	Model/Diorama/ Invention	10-9 Extensively explains strengths and weaknesses (at least three each) of the model's reflection/employment of the scientific concept. Explain how it could be improved (at least three ways) and what further research could be conducted to refine human's understanding of this concept. (one or more way)	8-7 Thoroughly explains strengths and weaknesses (at least two each) of the model's reflection/employment of the scientific concept. Explain how it could be improved (at least two ways) and what further research could be conducted to refine human's understanding of this concept. (one or more way)	6-5 Soundly explains strengths and weaknesses (at least three total) of the model's reflection/employment of the scientific concept. Describe how it could be improved (at least two ways) and what further research could be conducted to refine human's understanding of this concept. (one or more way)	4-3 Basically describes strengths and weaknesses (at least three total) of the model's reflection/employment of the scientific concept. Describe how it could be improved (at least one way) and restates one or more important aspects of the concept that was being modelled.	2-1 Lists strengths and weaknesses (at least two total) of the model's reflection/employment of the scientific concept.	0	
Conclusion	Investigation	3 Clear, logical, scientific summary of findings, supported with evidence from results. Link between dependent and independent variable. States whether supports or opposes the hypothesis.		2 Clear summary of findings. Supported by results. States whether supports or opposes the hypothesis.		1 Summary of findings is simple .	0	
<b><u>OR</u></b>	Model/Diorama/ Invention	3 Extensive explanation of the success of the model. Including a judgement statement and evidence to support that statement.		2 Description of the success of the model with an indication for reasons why		1 Simple conclusion with no evidence	0	/23
Bibliography		5 a comprehensive list of resources given (at least 5) and referenced using Harvard or APA format, a variety of material listed including articles, websites and books	4 a list of resources given (at least 4) and referenced clearly, only one type of material listed. Referencing style is attempted.	3 a list of resources given (at least 2) and referenced clearly, one type of material listed material listed	2 either 1 resource given or 1 source of material listed	1 References are web addressed only	0	WS 9  /3
<b>Total</b>								

**Feedback**

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