ORANGE HIGH SCHOOL

ASSESSMENT TASK NOTIFICATION

Subject	Year 9 Science
Topic	All topics and/or any Science area of interest
Class Teachers	A Routh, A Constant, J Huggett, A Paul, K Griffen, S Townsend and M Kennard
Head Teacher	Mr P Shea
Year	9
Date Given	Week 9A Term 2
Date Due	Part A Week 5A 19th to 23rd of August Term 3
Weighting	Part A = 30% & Part B = 30%

Assessment Outline

You will be expected to:

Individually conduct a scientific investigation on a scientific topic of your choice. Part A will prepare you for this task and Part B will be your scientific report.

To complete your scientific investigation, you will need to:

- Identify a question or problem that you want to investigate.
- Research the question or problem.
- Write a hypothesis for your investigation.
- Design and plan your investigation.
- Conduct the investigation.
- Collect accurate, reliable and valid results.
- Communicate your results in appropriate formats such as tables and graphs.
- Evaluate and analyse your results.
- Draw conclusions from the investigation, refer to your hypothesis.
- Present your investigation in an appropriate format (see below).

You will need to submit the following:

- **Part A:** Completed scaffold preparation booklet
- **Part B:** A detailed formal typed-written scientific report on A4 paper (A physical copy will be handed to you with the feedback from Part A. An electronic version is on the OHS website)

Please note: A scaffold will be provided for students who wish to use one if they need assistance with their project. Assessment of their outcomes will be adjusted accordingly.

For additional information, please see the attached task detail outline sheet.

Non-completion of Task:

If you know you are going to be away on the day that the task is due, you must make alternative arrangements with your teacher beforehand. If you are suddenly away on the day that the task is due, you must contact your teacher or Head Teacher on your return to school. Documentation will be required in both classes.

Plagiarism:

Plagiarism, the using of the work of others without acknowledgement will incur serious penalties and may result in zero award. Any cheating will also incur penalties.

Failure to follow the above procedures may result in a zero award.
The policies and procedures that are outlined on the ROSA booklet will be followed regarding the non-completion of assessment tasks.

Outcomes Assessed

SC5-4WS Develops questions or hypotheses to be investigated scientifically
SC5-5WS Produces a plan to investigate identified questions, hypotheses or problems
SC5-6WS Undertakes first-hand investigations to collect valid and reliable data and information
SC5-7WS Processes, analyses and evaluates data from first-hand investigations and secondary sources to develop evidence-based arguments and conclusions
SC5-8WS Applies scientific understanding and critical thinking skills to suggest possible solutions to identify problems
SC5-9WS Presents science ideas and evidence for a particular purpose and to a specific audience, using appropriate scientific language, conventions and representations

Task Detail Outline Sheet:

Year 9 Individual First-Hand Investigation

This task will contribute towards your semester grade (60 %). [Part A = 30% & Part B = 30%]
It will also contribute to your overall assessment for your ROSA.

DATE DUE:

Part A: Week 5A 19th to 23rd of August Term 3 (Completed preparation booklet)
Part B: Week 1A 14th to 18th of October Term 4 (Completed scientific report)

Your task is to conduct an Individual First-Hand Investigation. This means that you have to conduct a scientific investigation on a topic of your choice.
Please note: You cannot chose an investigation that you have done as part of a previous science studies (either as an assessment or in class). Eg Melting ice and salt.

You can choose any topic from any area of study in science. The best topics are the ones that you are interested in or an area of science that you would like to investigate further.

Where to find ideas:

The following website has a survey that you can complete to assist you in finding an appropriate investigation to conduct.

http://www.sciencebuddies.org/science-fair-projects/project_ideas.shtml

ALTERNATIVELY, you may select an idea from below:

1. Does the amount of liquid fertiliser put on a plant affect plant growth?
2. Does the concentration of the acid affect the rate a reaction occurs?
3. Does the mass of an object affect the distance it would bounce back if it is dropped from a 1 metre height?

Safety:

Your investigation must be one that is safe and does not use any dangerous or banned substances. If you have any questions please speak to the Head Teacher of Science: Mr Shea.

You MUST complete a risk assessment as part of your scientific investigation.

You must submit your investigation in a proper scientific report format as discussed in class.

Orange High School

Science Faculty

Year 9 Science

Individual First-Hand Investigation Task

Part A: Investigation preparation booklet

Due: Week 5 Term 3

Name: _____

Teacher: _____ **Class:** 9SC___

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1. **Selecting a problem**

   List at least 3 ideas or topics you would like to investigate.

2. **Researching the ideas or topics**

   In the spaces below, outline the research that you have conducted on each of the 3 ideas or topics you have chosen

Idea 1:
Idea 2:
Idea 3:

3. **Bibliography** (include at least 2 sources from where you have collect the information from)

Idea	Source of information
1	(a)
	(b)
2	(a)
	(b)
3	(a)
	(b)

4. **Decide on which idea that you wish to carry out an investigation on**

   Write down which idea you will use for the investigation and OUTLINE why you have chosen this topic or idea.

5. **Aim and Hypothesis**

   What is the aim or purpose of your investigation?

   What is your hypothesis for your investigation? What do you predict will happen?

6. Variables

Independent Variable (What you change)	**Dependent variable** (What you measure or observe)

Variable that needs to be controlled	**How this variable will be controlled**

7. Equipment and method

Write down the equipment you will need to conduct your investigation.

Draw a labelled diagram of your experimental set up

Write down a clear method that is logical and concise.

8. **Collecting results**
   How will you collect your results? Draw a table of what results you will be collecting. Make sure you include appropriate headings and units in your table. (Please note, you are not conducting the investigation yet, there should be no results in the table.)

End of Part A, submit to your teacher (Due Week 5 Term 3)

Name:_____

Part A - marking rubric: (Due Week 5 Term 3)

Class: _____

Criteria	Outstanding (A)	High (B)	Sound (C)	Basic (D)	Limited (E)	Mark
1. Selecting a problem	Identifies 3 ideas or topics in detail to be tested		Identifies 2 – 3 ideas or topics to be tested		Identifies 1 idea or topic to be tested	**/3**
2. Researching the ideas or topics	Extremely detailed level of research for all 3 ideas or topics. High level of scientific terminology.	Detailed level of research for all 3 ideas or topics. Some scientific terminology used.	Satisfactory level of research for all 3 ideas or topics. Some scientific terminology used.	Satisfactory level of research for 2 ideas or topics.	Attempted research of an idea or topic.	**/5**
3. Bibliography	6 or more resources indicated		3 – 5 resources indicated		1 – 2 resources indicated	**/3**
4. Deciding on the idea or topic	Chosen idea or topic outlined thoroughly and detailed reasons provided for this choice.	Chosen idea or topic outlined and reasons provided for this choice.	Chosen idea or topic outlined and a reason provided for this choice.	Chosen idea or topic described.	Chosen idea or topic identified only.	**/5**
5. Aim and Hypothesis	Detailed and correct aim and hypothesis provided. Independent and dependent variables identified. In third person. Scientific terms used		Correct aim and hypothesis provided. Some mistakes		Aim and hypothesis provided. Many mistakes	**/3**
6. Variables	Independent and dependent variables correctly given. 3 controlled variables given and each outlined how they will be controlled	Independent and dependent variables correctly given. 3 controlled variables given and some outlined how they will be controlled	Independent and dependent variables correctly given. 2 controlled variables given and some outlined how they will be controlled	Independent and dependent variables mostly correct. 2 controlled variables given	Independent, dependent or a control variable correctly identified.	**/5**
7. Equipment and method	Complete list of equipment given. Extremely detailed method supplied. No mistakes. Variables are correctly identified in the method.	Complete list of equipment supplied. Detailed method supplied. 1 mistake only. Variables are correctly identified in the method.	Mostly complete list of equipment supplied. Method supplied. A few mistakes only.	Equipment supplied, incomplete. General method supplied, not detailed	Equipment and/or method attempted, relevant but no real detail supplied.	**/5**
8. Collecting results	Correct table drawn demonstrating how results will be collected with correct headings and units. Closed table. Ruler used if hand drawn.		2-3 mistakes present in the table		Attempted table, doesn't correctly represent how to collate the data	**/3**
Total:						**/32**

Teacher Feedback:

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