



ORANGE HIGH SCHOOL

ASSESSMENT TASK

Subject	Earth and Environmental Science
Topic	Earth's Resources
Class Teacher	Ms J Mansur
Head Teacher	Mr P Shea
Year	11
Date Given	Thursday 25 th March 2021
Date Due	Friday 23 rd April 2021 (Week 1, Term 2)
Weighting	30%

Assessment Outline

As part of the Preliminary Earth & Environmental Science course students will be required to investigate how non-renewable geological resources are extracted.

The Task: Undertake an investigation and create a feasibility study on opening a new copper mine in NSW.

Your investigation will begin the process of extracting copper from a 'rock sample' taken from undisclosed locations near Orange. This will be conducted in class following your individual methodology. Your results will be made available to the class for analysis determining which location would be the best for a future mine.

Your feasibility study will describe the mining and processing of copper, locations of copper mines in Australia with a focus on Cadia Mine and an analysis of the environmental effects of your chosen mining method.

Investigation:

- Hypothesis
- Methodology
- Results analysis of your data and class data highlighting the location of the future mine.

Feasibility study:

- a **description** of the mining extraction method
- a **flow chart** detailing the stages in processing the copper ore to copper metal
- **identify** locations where this non-renewable geological resource is extracted in Australia (including a diagram)
- provide detail on the operations of Cadia mine
- an **analysis** of the environmental effects of the mining method

Your report will include the investigation and the feasibility study.

Your report should use more than one source of information, and all sources of information should be correctly cited.

The task is worth 30% of your course marks.

The task can be in any format that you choose- handwritten, PowerPoint, Captivate or a document (word/pdf/doc).

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

This task will evaluate a student's ability in the following course outcomes.

- **EES11-8** - describes the key features of the Earth's systems, including the geosphere, atmosphere, hydrosphere and biosphere and how they are interrelated
- **WS 11.1 Questioning and predicting**
 - develop and evaluate inquiry questions and hypotheses to identify a concept that can be investigated scientifically, involving primary and secondary data
- **WS 11.2 Planning investigations**
 - Assess risks, consider ethical issues and select appropriate materials and technologies when designing and planning an investigation
- **WS 11.4 Processing data and information**
 - apply quantitative processes where appropriate
- **WS 11.6 Problem solving**
 - solves scientific problems using primary and secondary data, critical thinking skills and scientific processes