

Assessment task

Chemistry – General Year 11

Task 7 – Unit 2

Assessment type: Investigation report

Conditions

Period allowed for completion of the task: two weeks

A combination of in-class and out-of-class time will be required to complete this activity.

Task weighting

10% of the school mark for this pair of units

Note: Context of assessment task is environmental chemistry

Aqueous solutions in action – formation of crystal caves

30 marks

Yanchep National Park is situated at 1 hour drive from Perth. It is famous for its 'Crystal Caves'.

Research and report on the following questions related to formation of crystal caves

1. Where is Yanchep? (write location in words and provide a map identifying it).
2. What are crystal caves made of? (chemical composition). Where did this material originally come from?
3. How old are the limestone caves (in general) and describe their formation.
4. Differentiate between stalagmites and stalactites. (use at least one labelled picture/diagram to show difference).
5. Explain how stalagmites and stalactites form over time in limestone caves.
6. Explain how climate change has impacted the crystal caves.

Referencing

You need to use at least **three (3)** sources of information in your research. These sources must be clearly identified to enable their verification. Web-based sources need to be used with care to ensure the data is accurate. Where web-based sources are used, give the html address, the date accessed and, ideally, the author and/or publisher of the website.

Plagiarism

You are only allowed to cut-and-paste 10% of your report. The rest needs to be put into your own words.

Marking key for assessment task 7 – Unit 2

Description	Possible mark
Yanchep location with map	2
Description of chemical composition and origin of cave material	2 + 2
Age of limestone caves and description of how they are formed	1 + 4
Difference between stalactites and stalagmites with labelled diagram	2 + 1
Explanation of how stalagmites and stalactites form over time	4
Explanation of how climate change has affected crystal caves.	4
Presentation: Use of headings and pictures.	5
Referencing: <ul style="list-style-type: none"> • at least three sources – one mark each up to a maximum of three marks • clear referencing allowing verification 	3
Total	/30