

AfL Lesson Example 3 (Geography)

Subject	Geography	Level / Stream	Sec 3 NA
Topic	Risks of living in volcanic areas	Class size	35
Lesson Duration	1 hour	Date conducted	3 April 2019
Prior knowledge	In previous lessons, students have learnt - the benefits of living near volcanoes	Student profile	Average ability students. Capable of collaborative learning. Heavily reliant on notes provided by the teacher.

Intended Learning Outcomes

Knowledge:

- Students will know the risks of living near volcanoes
- Classify risks into environmental, social and economic impacts


Understand:















- There are both benefits and risks of living near a volcano
- Many people still live near the volcano despite the risks
- Know what makes people live near volcanoes (Is it because the benefits outweigh the risks? Risk management strategies? Sense of belonging to the place?)











Do:

- Describe the risks of living near a volcano

Lesson


AfL process	Timestamp	Activity	Tips/Remarks
 Explaining	[00:00]	Teacher recaps the discussion question that students have to attempt and link the previous lesson to the day's lesson objective.	

	Explaining	[00:21]	Teacher highlights what students should be looking out for in the video clip from the movie 'Dante's Peak'.	
	Exploring	[00:41]	Students are to discuss within their group what they observed from the video clip.	 Exchange of ideas allows students to have richer responses.
	Exploring	[01:20]	Teacher elicits responses from students and writes them on the whiteboard.	 Get students to write their responses on online platforms during group discussions instead of writing on the classroom whiteboard.
	Exploring	[01:43]	Teacher probes students to think more deeply by asking why people still live near volcanoes despite the risks.	
	Explaining		Teacher brings students back to the learning objectives by reiterating the discussion question they have to attempt.	
	Explaining	[02:36]	Teacher shows the PEEL format to help students scaffold their response for questions that they have to answer in the tests/exams.	
	Explaining		She includes a similar example to show how the PEEL format can be used.	
	Engaging	[03:29]	Teacher highlights a mistake that students made in the previous lesson on benefits. She offers advice on how to improve their answer.	 Don't just tell students what is wrong, tell them how they can make their answer better.  Show an example of the 'wrong answer' and invite students to suggest improvements.
	Exploring	[03:57]	Teacher gives guidelines on how to give feedback to peers in a safe, non-judgemental way.	 Peer evaluation is more effective when students feel safe.

	Exploring	[04:23]	Teacher asks questions to get students to recap prior knowledge and make connections to what they are discussing at the moment. Teacher probes students to think further by asking more questions.	
	Engaging	[05:09]	Students are asked to nominate one presenter in their expert groups. The presenter is given an opportunity to practise with her team members before being asked to present to the class.	 Giving students opportunity to practise will boost their confidence and help improve their answers.  Good group norms (turn taking, respecting each other's opinions, elaborating and building on each other's answers) promote greater student engagement.
	Exploring	[05:38]	Students that have been nominated are asked to present what they have discussed to the class. Teacher writes down pertinent points on the whiteboard.	
 	Exploring Explaining	[06:22]	Teacher asks the class what is volcanic glass. She probes them with more questions to get them to think. She writes down the keywords she deems important.	
	Exploring	[07:03]	Teacher highlights a point that a student made when she was listening to the students' discussion.	
	Explaining	[07:26]	Teacher gets students to recap what they have learnt.	
	Exploring			

Legend

 Alternative activities

 Time saving tips

 General remarks

Planning stage

Before the lesson was conducted, the teacher made modifications to the original lesson plan based on discussion with the research team:

- Make a more explicit link to the previous topic [on benefits] at the start of the lesson
- Included an example of how to write using the PEEL structure to guide students in answering a question for the upcoming common test (and eventually the exams). The structure is to help them weigh the benefits versus risks.
- Incorporated more activities that allowed for evidence of learning to be collected and feedback to be given within the lesson instead of waiting for the next lesson
- Readjusted the timing for some of the activities and used another lesson for sharing within the home group.

This lesson is part of a series of lessons where students will eventually have to weigh the benefits versus the risks of living near a volcano.

The first lesson [on benefits] took up a lot of time because students needed to familiarise themselves with their groups and understand what they had to do. Initially, they simply gave their papers to their friends in their home groups to copy so the teacher had to structure the activity such that each person had to ask at least one question to their expert in the home group.

Follow-up

Students are asked to write a reflection on the day's activities.

In the next lesson, main points that the expert groups have collated are presented on mah-jong paper. The home groups do a gallery walk where the experts at each station have to explain what was presented and made sure everyone in the home group understood it.

The learning outcomes of what was expected of the students (i.e. tying in together all the knowledge they have gained about the benefits and risks) were also made clearer to the students before they attempted to answer an essay question.

Post-Lesson Reflections

The activity took double the amount of time compared to a lesson that was mainly lecture style. However, students were able to remember the content better and showed greater ownership and pride in their learning. They were able to use the correct keywords and reflected greater depth in their thinking, both during their discussion in class and in the written work they submitted. They also put in a lot of effort and tried to frame their understanding better.

By doing a gallery walk where students had to verbally present the points, students understand the content better as they were not just focussed on trying to complete their worksheets.

One thing that can be done better is to get the students to read up before the lesson so they have more time to think it through and find more case studies to cite.

Points to Ponder

Reflect on your daily AfL practices in class.

- 1) Are your students able to articulate explicitly the expectations or standards you have of them for every lesson?
- 2) How much of the lesson time in class do you maximise to elicit individual students' progress in their learning?
- 3) Do you provide several opportunities and make connections for students to progressively work on improving a similar skill / topic?

Acknowledgements

This project was funded by the National Institute of Education (NIE), Nanyang Technological University, Singapore (RS 3/18 LWS). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of NIE.

We would like to thank Ms Aruna Govind and Woodlands Ring Secondary School for their contributions in the making of these resources.

Source:

Dr Leong Wei Shin, Project RS 3/18 LWS funded by the National Institute of Education (NIE), Nanyang Technological University, Singapore. Adapted by Knowledge Mobilisation Unit, Office of Education Research, NIE, 2019. This resource may be reproduced for educational and non-commercial purposes only. If you wish to adapt or reproduce this resource, please contact haslinda.ismail@nie.edu.sg.