

**Secondary Science SBE
Lesson Plan Framework**

Lesson Title: Igneous Rocks

Group 8_0

Location

Date/Time 23rd April /14h15 to 15h15

Learning Objectives

Pupils will learn...

- to recap sedimentary and metamorphic rocks topic main ideas.
- to look at how igneous rocks are formed and be able to describe and name some rocks examples.

Learning Outcomes

Pupils will be able...

- to learn that igneous rocks are formed when magma inside the Earth cools down.
- to describe volcanoes as a phenomenon that causes igneous rocks being formed.
- to identify and describe granite and basalt as examples of igneous rocks.

National Curriculum/Syllabus References

Ks3 Biology, Exploring science text book (pages 98-99), Rock Texture. NC5.

Links to other areas

Lesson will cross link with literacy science knowledge as well pupils will develop some investigation skills (exploring and obtaining) by putting hands on work making volcanoes to understand how igneous rocks are formed.

Previous assessment details informing this lesson.

Last lesson worksheet that I've marked to check pupils' difficulties about the last topic.

Differentiation

Level 5-6 class (mostly level 5). I will use a practical activity that allows pupils from level 5-6 to develop further knowledge by exploring, developing and obtaining knowledge when putting hands on work. Starter activity with a words game to put pupils develops literacy knowledge by understanding the meaning of some concepts around rocks unit. Link with ICT

Health and Safety

Lesson totally safe for pupils. See risk assessment attached.

Lesson Development

Timing (min)	Teacher activity	Pupil activity	# Resources	Assessment Items
3 min	Register	Pupils will pay attention to class register.	Teacher planner	-
3	Sharing lesson aim with class.	Pupils will know the lesson aim involves looking at how igneous rocks can be formed as well name some rocks examples.	Small white board	
10	Setting starter activity that lead to a last two lessons review.	<p>For starter, pupils will recap last lesson and consolidate sedimentary and metamorphic rocks ideas.</p> <p>Words games to put pupils understand the meaning and relate rocks concepts like squeezed, metamorphic, high pressure and temperature etc. This game hopefully will put pupils think and try to establish a relationship with the rocks' unit.</p>	<p>Computer Power point Exercise books. White board</p>	<p>Effort to do and participate into starter activity. Behaviour during the lesson.</p>

5min	Brief Introduction about igneous rocks.	Pupils will pay attention to brief introduction about igneous rocks. They will observe two igneous rocks examples (granite and basalt) as well understand the importance of volcanoes when related with igneous rocks being formed.	White board Computer Power point Exercise books Granite basalt	Q+A
15-20	Setting Practical Activity. I will give instructions for pupils put hands on work.	Class will work by groups of 2/3 to make a clay volcano and label it. They need to pay attention to all the instructions to be able to understand the task and hopefully develop further knowledge using hands on practical skills.	Computer Power point Note: See risk assessment attached to check practical equipment.	I will be aware of some misbehaviour and assess pupils' way of work by groups to develop a practical activity. Note: Pupils will know that the best volcano and best team work will win a pack of sweets.
5	Cleaning Lab	Pupils will finish practical hopefully on time and help teacher packing and cleaning all the material.	Note: All practical equipment detailed on risk assessment form.	Pupils' organization.
4	Setting plenary activity	Opportunity to pupils consolidate the topic by watching a short video about volcanoes and igneous rocks.	Video computer	
5	Setting the homework	Pupils can go home to read all the book notes about the rocks topic and answer to homework questions.	Books Homework sheet	I will mark the homework

PGCE & BSc. Secondary Science(School based Form)

Risk Assessment

Title of Practical Activity: Making volcanoes

Teachers and pupils involved: teacher, trainee teacher and 33 pupils (working by groups of three).

Substances hazardous to health - Chemicals regulated by COSHH	
1. Allergy to clay	6.
2. Allergy to wax	7.
3. Get burn with Bunsen burner	8.
4.	9
5.	10.

Hazardous procedure or item of equipment.

Items: clay, pastry, scissors, wax, candle, Bunsen burner, tripod, matches, colour sheets.

Risk estimator >10 then risk is unacceptable; rethink control measures)

Likelihood of occurrence	L Score	Severity of Outcome	O Score
Highly unlikely	1	Slight inconvenience	1
May happen but rare	2	Minor injury	2
Does happen but rare	3	Medical attention required	3
Occurs time to time	4	Major injury leading to hospitalisation	4
Likely to occur often	5	Fatality or serious injury	5

Practical Risks

Hazard	L Score	O Score	Total (LxO)	Control Measures
1	1	1	1	Check with class if someone is allergic to clay.
2	1	1	1	Check with class if someone is allergic to wax.
3	3	3	9	Pupils will not use Bunsen burner. Just the teacher will use it to melt wax for the entire class.

Lesson Evaluation

Lesson Rating – My Performance *(To be completed at the end of every lesson)*

Criteria	Very Good	Good	Satisfactory	Unsatisfactory
Knowledge				
Resources				
Lesson Objectives				
Behaviour Management				
Risk Assessment				
Differentiation				
Feedback to pupils				
Assessment				
Variety & Pace				
Level appropriate				
Visuals – high quality?				

General Comments (Improvements for your teaching and/or pupil learning)

Were your Outcomes Achieved? (Include details of Evidence)

Teachers Lesson Rating – *(To be completed at the end of every lesson)*

Criteria	Very Good	Good	Satisfactory	Unsatisfactory
Knowledge				
Resources				
Lesson Objectives				
Behaviour Management				
Risk Assessment				
Differentiation				
Feedback to pupils				
Assessment				
Variety & Pace				
Level appropriate				
Visuals – high quality?				

Teacher Comments