

**Secondary Science SBE  
Lesson Plan Framework**

**Lesson Title:** Chemical Weathering

**Group** 8Y                      **Location**                      **Date/Time** 23<sup>rd</sup> April /10h10 to 11h10

**Learning Objectives**

Pupils will learn...

- to look at how rainwater can affect rocks at the Earth surface.

**Learning Outcomes**

Pupils will be able...

- to understand that rain is slightly acidic and when the rain falls onto rocks it will react causing chemical weathering.

**National Curriculum/Syllabus References**

Ks3 Biology, Exploring science text book (pages 82-83), Rocks and Weathering. NC 4.

**Links to other areas**

Lesson will cross link with literacy science knowledge as well pupils will develop some investigation skills (exploring and obtaining results) by putting hands on work to make a practical investigation activity about weathering in rocks. Link also with ICT and numeracy (drawing a results table).

**Previous assessment details informing this lesson.**

Last lesson was useful to check pupils' practical skills.

**Differentiation**

Level 3-4 class. I will use a practical activity that allows pupils from this level to develop further knowledge by exploring, developing and obtaining knowledge when developing investigational practical skill. 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
2	Register	Pupils will pay attention to class register.	Teacher planner	-
5	Hand in metamorphic worksheet correction as well the grades to entire class.  Showing pupils volcanoes pictures.	Pupils will receive their metamorphic worksheet as well they will be aware of their grades.  Pupils with best grade will have a present as teacher promised.  Pupils will have the opportunity to see some pictures of their last practical work as well one of the groups will receive a present for the best volcano.	-Computer -Power point -Sweets -Worksheets -Worksheets correction	-
10	Sharing lesson aim and setting starter activity.  Starter activity in Tim and Moby Flash File 'ask questions about the clip'	Pupils will know the lesson aim about look at how rainwater can affect rocks at the Earths surface.  Pupils will be doing the starter activity	- white board -Computer -Tim and Moby Flash File	Assessment using their previous knowledge about the subject (how much they already know about the topic, who knows more who knows less???)
10	Brief Introduction to explain about chemical weathering	Pupils will be listening -Pupils will be making notes in their exercise books	-Computer -Power point -books	Q+A

5	Setting and giving instructions for practical activity	Pupils will be making carrying out an experiment together with teacher.	<b>Note: See risk assessment material to check all the items and procedure of the practical.</b>	Assessment by checking pupils work during the practical.
15	Demonstrating Testing Different rocks with acid and record what happens in the experiment	Pupils will writing important information into their exercise books as conclusion. Visual, kinaesthetic activity		
4	Watching a video	Pupils will watch a video about chemical weathering.	Computer video	-
4	Collecting last lesson homework	Pupils will hand in rocks homework.	Homework sheet	The homework will be marked.

PGCE & BSc. Secondary Science(School based Form)

## Risk Assessment

**Title of Practical Activity:** Chemical weathering

**Teachers and pupils involved:** teacher, trainee teacher and 14 pupils (working by groups of three).

Substances hazardous to health - Chemicals regulated by COSHH	
1. Hydrochloric acid can be dangerous when >1M	6.
2.	7.
3.	8.
4.	9
5.	10.

**Hazardous procedure or item of equipment.**

**Items:** rocks examples (limestone, granite, marble, sandstone), hydrochloric acid and one pipette.

**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 (Lx O)	Control Measures
1	2	3	6	Teacher will aware pupils of risk assessment as well will make sure that pupils use properly hydrochloric acid by making a demonstration.



## Lesson Evaluation

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

<b>Criteria</b>	<b>Very Good</b>	<b>Good</b>	<b>Satisfactory</b>	<b>Unsatisfactory</b>
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)*

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

Teacher Comments