

**Secondary Science SBE
Lesson Plan Framework**

Lesson Title: Solids, liquids and Gases

Group: 7_0 **Location:** M21 **Date/Time:** 11th May 13h15 to 14h15

Learning Objectives: Students should learn:

- to investigate the properties of solids, liquids and gases.

Learning Outcomes: Most students should be able to:

- to classify what a solid, liquid and a gas is.
- the properties of solids, liquids and gases.

National Curriculum/Syllabus References (incl. reference to previous KS)

Ks3, Sc3, Exploring Science Text Book – Topic Particle model of solids, liquids and gases, NC 4-5.

Links to other areas

Literacy, developing investigative skills and kinaesthetic learning styles.

Previous assessment details informing this lesson.

Last lesson was used to make the end of unit test about the topic Feeding relationships.

Differentiation

By questioning
By support
By modelling

Health and Safety

Lesson safe for pupils, but see risk assessment attached.

Lesson Development

Timing (min)	Teacher activity	Pupil activity	# Resources	Assessment Items
3	Taking the register	Pupils will pay attention to the register.	Teacher planner	
2	Sharing lesson aim	Pupils will be listening and writing the lesson aim about investigating solids, liquids and gases properties.	Small white board books	-
10	Setting the starter activity.	Teacher has a variety of objects on desk and show to pupils to identify if it is a solid, liquid or gas? Going over the answers during the activity to check pupil's knowledge.	Cards	Individual assessment by explaining why is a solid, liquid and a gas. Note: Good activity to check misconceptions and also pupils subject knowledge.
5	Going over power point to start the topic with a brief explanation about the practical activity.	Pupils will be paying attention to all the instructions to carry out an investigative practical activity about solids, liquids and gases properties.	Computer Power point	-
15	Carrying the circus practical activity.	Pupils will work by benches. Each bench will carry three different experiments, testing and investigating if solids, liquids and gases can be compressed, can flow and if they keep their shape? Completing a worksheet by answering the questions. Teacher will control the time to pupils be aware when they need to change to another bench and experiment.	worksheet Note: See risk assessment to check all the material.	Assessment by checking pupils developing some investigative skills. Making sure that all pupils are on task.

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10	Going over the practical activity conclusions.	Pupils will be listening teacher and answering some of the questions about the practical.	Computer Power point	Q+A
10	Setting Plenary Activity.	Pupils will have a worksheet and they need to match the correct term (solids, liquids and gases) with the correct diagram. Going over the answers.	Worksheet Computer Power point	Assessment by checking pupils answers and asking individually to explain the answers.
5	Instructions for packing away	Packing away and moving to next lesson.	-	-

PGCE & BSc. Secondary Science(School based Form)

Risk Assessment

Title of Practical Activity: Solids, liquids and Gases Properties

Teachers and pupils involved: teacher, trainee teacher and 32 pupils

Substances hazardous to health - Chemicals regulated by COSHH	
1. Using syringes	6.
2. Allergy to perfume	7.
3.	8.
4.	9.
5.	10.

Hazardous procedure or item of equipment.

Items: syringes, plastic bottles, beakers, perfume and a plastic bags

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	1	1	1	Teacher will aware pupils of risk assessment and will explain what they need to do with the syringes.
2	2	2	4	Teacher will ask if anyone in class is allergic to perfume.