

FORM 3

TERM 1

SUBJECT: CHEMISTRY.

TOPIC 1: GAS LAWS.

TEACHER'S NAME:

TSC NO:

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SCHOOL/ INSTITUTION :

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FORM: 3

TERM: 1

YEAR.....

NUMBER OF STUDENTS.....

SUBJECT: CHEMISTRY

TOPIC: GAS LAWS.

SUB-TOPIC: BOYLE'S LAW.

WEEK:

LESSON NUMBER:

DATE:

TIME:

OBJECTIVES: By the end of the lesson the learner should be able to;

- State Boyle's law.
- Explain Boyle's law using kinetic theory of matter.
- Represent Boyle's law mathematically and graphically.
- Solve further problems involving Boyle's law.
- Plot and interpret graphs involving pressure and volume of gases.

LESSON PRESENTATION

TIME	CONTENT	LEARNING ACTIVITIES	RESOURCES	REFERENC E
5 MINUTES	INTRODUCTION State the Boyle's law.	Discussion. Questions and answers.	-Chalk board/white board. -A piece of chalk/ marker pen.	<i>K.L.B. BK III</i> <i>PP. 1-5</i>
30	BODY	-State Boyle's law.	Chart	<i>K.L.B. BK</i>

MINUTES	DEVELOPMENT -State Boyle's law. -Explain Boyle's law using kinetic theory of matter. -Represent Boyle's law mathematically and graphically. -Solve further problems involving Boyle's law. -Plot and interpret graphs involving pressure and volume of gases.	-Explain Boyle's law using kinetic theory of matter. -Represent Boyle's law mathematically and graphically. -Solve further problems involving Boyle's law. -Plot and interpret graphs involving pressure and volume of gases.	Volume-pressure relationship. Syringes. Calculators. Graph papers.	III <i>PP. 1-5</i> Longhorn Book III <i>PP 1 -8</i>
5 MINUTES	CONCLUSION Giving assignments.	Questions and answers.	-Chalk board/white board. -A piece of chalk/ marker pen.	K.L.B. BK III <i>PP. 1-5</i>

SELF-EVALUATION:-

TEACHER'S NAME: **TSC NO:**
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SCHOOL/ INSTITUTION :
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FORM: 3
YEAR.....

TERM: 1

NUMBER OF STUDENTS.....

SUBJECT: CHEMISTRY

TOPIC: GAS LAWS.
SUB-TOPIC: CHARLE'S LAW.
WEEK:

LESSON NUMBER:

DATE:

TIME:

OBJECTIVES: By the end of the lesson the learner should be able to;

State Charles' law.

Explain Charles' law using kinetic theory of matter.

Convert temperature in degree Celsius to Kelvin and vice-versa.

Express Charles' law with equations.

Give a graphical representation of Charles' law.

Solve numerical problems based on Charles' Law.

LESSON PRESENTATION

TIME	CONTENT	LEARNING ACTIVITIES	RESOURCES	REFERENC E
5 MINUTES	INTRODUCTION -State Charles' law.	Discussion. Questions and answers.	-Chalk board/white board.	<i>Longhorn Book III PP 9-14</i>

			-A piece of chalk/ marker pen.	
30 MINUTES	<p>BODY DEVELOPMENT</p> <p>Teacher demonstration:- To show expansion of air when heated and contraction when pressure is constant.</p> <p>Explain increase in volume when temperature is raised.</p> <p>Q/A: - relation between volume and temperature, leading to Charles' law.</p> <p>Teacher explains inter-conversion of the units.</p> <p>Students complete a table of temperature in the two units</p> <p>Derive equations from volume and temperature relationship.</p> <p>Exposition: - Teacher exposes a volume-</p>	<p>Teacher demonstration:- To show expansion of air when heated and contraction when pressure is constant.</p> <p>Explain increase in volume when temperature is raised.</p> <p>Q/A: - relation between volume and temperature, leading to Charles' law.</p> <p>Teacher explains inter-conversion of the units.</p> <p>Students complete a table of temperature in the two units</p> <p>Derive equations from volume and temperature relationship.</p> <p>Exposition: - Teacher exposes a volume-temperature graph and extrapolates it</p>	<p>Calculators.</p> <p>Colored water,</p> <p>Glass tube,</p> <p>Warm water,</p> <p>Cork and Flask.</p>	<p>K.L.B.</p> <p>BK III P. 6-12</p> <p><i>Longhorn Book III PP 9-14</i></p>

	<p>temperature graph and extrapolates it to obtain the absolute temperature. The definition of absolute temperature is exposed.</p> <p>Worked examples.</p> <p>Supervised exercise.</p>	<p>to obtain the absolute temperature. The definition of absolute temperature is exposed.</p> <p>Worked examples.</p> <p>Supervised exercise.</p>		
5 MINUTES	<p>CONCLUSION</p> <p>Giving assignment on the sub-topic.</p>	<p>Questions and answers.</p>	<p>-Chalk board/white board.</p> <p>-A piece of chalk/ marker pen.</p>	<p><i>Longhorn Book III PP 9-14</i></p>

SELF-EVALUATION:-

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FORM: 3
YEAR.....

TERM: 1

NUMBER OF STUDENTS.....

SUBJECT: CHEMISTRY

TOPIC: GAS LAWS.
SUB-TOPIC: COMBINED LAW.
WEEK:

LESSON NUMBER:

DATE:

TIME:

OBJECTIVES: By the end of the lesson the learner should be able to;

- Derive the Gas Law.
- Derive the combined gas law equation.
- Solve numerical problems using the equation.

LESSON PRESENTATION

TIME	CONTENT	LEARNING ACTIVITIES	RESOURCES	REFERENC E
5 MINUTES	INTRODUCTION Explain and deduce a formulae for the combined gas equation.	Discussion. Questions and answers.	-Chalk board/white board. -A piece of chalk/ marker pen.	<i>K.L.B.</i> <i>BK III P. 12</i>
30 MINUTES	BODY DEVELOPMENT Q/A: - Combining Boyle's and Charles' Laws. Worked examples.	Q/A: - Combining Boyle's and Charles' Laws. Worked examples.	Calculators.	<i>K.L.B.</i> <i>BK III P. 12</i> <i>Longhorn Book III PP 14-16</i>
5 MINUTES	CONCLUSION Oral evaluation on the sub-topic.	Questions and answers.	-Chalk board/white board. -A piece of chalk/ marker pen.	<i>K.L.B.</i> <i>BK III P. 12</i>

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