



# SRI GOWTHAMI COLLEGE OF EDUCATION

DARSI - 523 247, Prakasam Dist., A.P.

Teaching Practice Cum Internship Record

Method - 2 (EDN - 12 PAPER - XII)

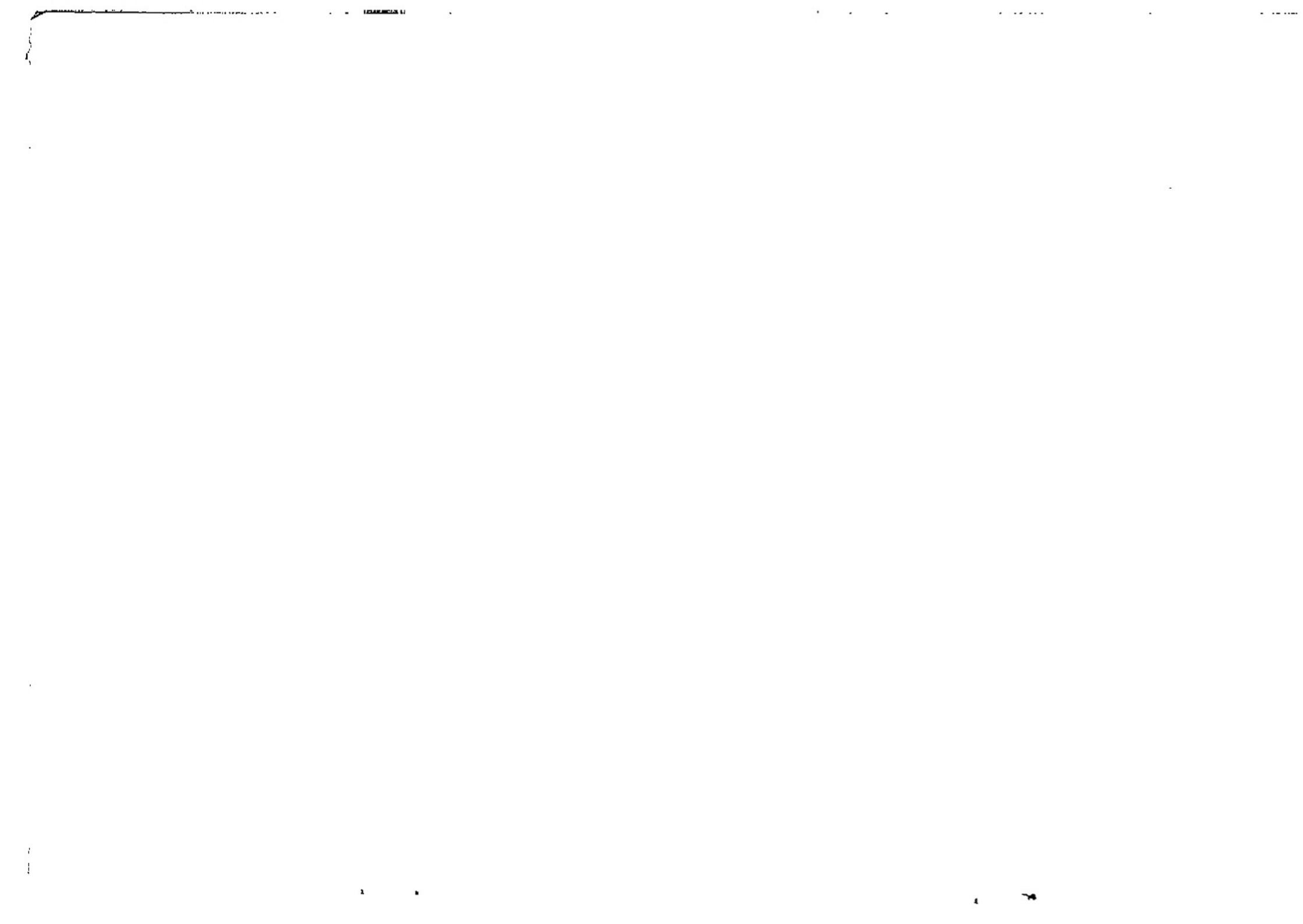
Sem - IV

Register No. : Y15 ED 90003

Method : Physical Science



  
Signature of the Lecturer



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## Internship Lesson plan - I.

### Preliminary Information

Name of the student teacher: Sujoy Barman

Roll no :

class : IX

Subject : I- Physical Science

Name of the unit : I- matter around us

Name of the lesson : Diffusion of two gases.

Date :

Period : 1-04

Name of the school : time 45 mins.

Previous knowledge assumed: The pupil has the previous knowledge of matter.

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Teaching points: 1. Properties of solid, liquid and gas,

2. Identifying the shape and volume of solids, liquids and gases.

Teaching method: 1. Lecture cum demonstration method.

Teaching learning material: charts, chalkpiles, duster, stone, cloth etc.

Reference books for

content: 1. VIII class A.P Govt. Physical science text book,

2. X class A.P Govt. Physical science text book.

Major instructional objectives and specification.

knowledge: Pupil acquire the knowledge of concepts & terms in the lesson diffusion of gases.

Recall: Pupil recall the terms, concepts in the lesson diffusion of gases.

Recognise: Pupil recognises the term, concepts in the lesson on diffusion of gases.

understanding: Pupil develop an understanding of the knowledge of the terms concepts in the lesson diffusion of two gases.

Gives reasons: Pupil give example for the situation in the lesson of diffusion of gases.

Explains: Pupil explains different types of processes in the lesson diffusion of two gases.

clarifies: Clarifies different types of objects, substances in the lesson diffusion of gases.

Implication: The pupil develops knowledge and understanding in familiar situation.

Specification: The pt pupil.

Analysis : Analysis the concepts in lesson diffusion of two gases.

formulates

Hypothesis: The people formulates different hypothesis for the phenomenon in lesson diffusion of two gases.

Verifies: Verifies the above hypothesis in the lesson diffusion of two gases.

Predicts: Predicts appropriate reason for the lesson diffusion of two gases.

Skill : The pupil acquire skills in observation - manipulation drawing and reporting.

Training skill: draw the diagram neatly and correctly in physical science.

Observation skill: Read apparatus carefully.

Read the observation carefully.

(4)

Content analysis	Teacher's activity	Pupils' activity	B.B.W
<p>Testing the previous knowledge of the student.</p>	<p>To test previous knowledge of the students. I asked the following questions,</p> <ul style="list-style-type: none"> <li>① In how many states matter exists?</li> <li>② What are they -</li> <li>③ In which type of substances get high compressibility?</li> <li>④ What we call the diffusion which takes place in solids?</li> <li>⑤ In solid and liquid diffusion first take place in —</li> </ul>	<ul style="list-style-type: none"> <li>① three</li> <li>② solid, liquid and gas.</li> <li>③ gas particles.</li> <li>④ solid diffusion,</li> <li>⑤ diffusion in gases.</li> </ul>	

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## Announcement - of the topic — Diffusion between two gases.

Content analysis	Objective	teacher's activity	Pupils' activity	TLM	BBW	Evaluation
difference between solid and gases		<p>By showing a glass test-tube</p> <p>→ what is this</p> <p>→ how are inside</p> <p>→ what is this</p> <p>→ what are I doing</p> <p>→ what is the formula of ammonia solution</p> <p>→ what are I doing</p> <p>→ what is this</p> <p>→ what is the formula of hydrochloric acid?</p>	<p>→ glass test tube</p> <p>→ two sides open</p> <p>→ cotton</p> <p>→ dip the cotton in <math>\text{NH}_3</math>.</p> <p>→ <math>\text{NH}_3</math></p> <p>→ placing the cotton of <math>\text{NH}_3</math> sol<sup>n</sup> in one end of the test tube.</p> <p>→ cotton of <math>\text{NH}_3</math></p> <p>→ <math>\text{HCl}</math>.</p>	test tube	test tube	

⑤

→ what am I doing

→ now what I am doing

→ what do you observe  
on blocking

→ what do you observe  
in the test tube

→ do you know what is  
this called

placing the cotton  
of the dil HCl.

test tube blocking  
the ends of the  
tube.

The hydrochloric  
gas and  $\text{NH}_3$  gas  
both mix with  
each other.

A white substance.

→ this is  
Ammonium chloride.

## CUMULATIVE ACTIVITIES.

Summarisation: To day we learn how diffusion takes place between two gases.

Recapitulation:

1. what is meant by diffusion of gases.
2. How does diffusion takes place between two gases.

Home assignment: How diffusion takes place between two gases explain with activity.

## Internship lesson plan - 2.

Name of the student teacher: Sujay Barman

Subject: 1. Physical science.

Class : IX.

Date :

Unit : Matter around us.

Lesson : what is matter made up of and how small particles of matter.

Period : 1 - 05.

Name of the school :

Pervious knowledge assumed: Pupil acquire the knowledge on properties of matter compressibility diffusing particles.

Teaching point: what is matter made up of? how small the particles of matter.

Teaching method: lecture cum demonstration

Teaching learning material: charts, blue, salts, glass tube etc.

Reference books: A.P Govt. text book of physical science of VII.

A.P Govt. text book of physical science for IX.

For methodology, Method of teaching of Physical science (Neel kumar)

## Minor instructional objectives and specification

knowledge:- The pupil acquires the knowledge of concepts of lesson, terms definition in lesson with which matter is made up of and how small are particles of matter.

Recall: The pupil recall diff... terms, concepts in the lesson with which matter is made up of and how small are particles of matter.

Recognise: Pupil recognise the above diffusion term, concepts in the lesson with which matter is made up of and how small are particles of matter.

Application: The pupil applies his knowledge and understanding in the lesson.

Analysis: The pupil analyse the concepts procedure in the lesson.

Predict: Predicts appropriate lesson.

Skill: The pupil acquire the skill in observation, drawing skill in lesson.

Drawing skill: draw the diagram neatly and correctly.

Interest: The pupil develops an interest in scientific phenomenon in the lesson participates in debates and talks on relevant topics. Write the article pertaining to subject for school magazine.

Scientific attitude: The pupil develop scientific attitude. Co-operate with others in arranging apparatus at the time of experiment.

Develop scientific attitude; characterisation, like impartiality of the truth, honest etc.

## INTRODUCTORY ACTIVITIES.

Content analysis	Teacher's activity	Pupils' activity	BBW
Testing the previous knowledge of the student.	<ul style="list-style-type: none"><li>→ By showing dust what is this ?</li><li>→ This is which kind of substance ?</li><li>→ what we take to live ?</li><li>→ This is which kind of substance ?</li><li>→ do you know how these matter made up of.</li><li>→ do you know how small the particles can be</li></ul>	<p>duster</p> <p>solid</p> <p>Air</p> <p>Gas particles.</p> <p>materials made up of tiny particles.</p>	

Announcement of the topic 'today we are going to learn how small the particles of matter.'

DEVELOPMENTAL ACTIVITIES.						
Content analysis	Objectives	teacher's activity	pupils' activity	BBW	Tew	Evaluation
Show small particles of matter.		<p>By showing glass what is this. (by pouring water in the glass) what I am doing?</p> <p>By drawing the level of the water in beaker. what I am doing? what is this</p> <p>what is the crystal?</p> <p>Is there any colour change in water. what change</p>	<p>beaker</p> <p>Pouring water in the glass.</p> <p>Measuring up to the level of water.</p> <p>Pink coloured crystals.</p> <p>Potassium permagnet.</p> <p>Yes. the colour of water changes.</p> <p>It changes into pink colour.</p>	beaker	beaker	

Now what am I doing and what am I mixing to that solution.

Again what I am doing do like this upto 5 times

what do you observe to the colour of this solution in the water - still colour .

How is it possible.

There are several tiny particles against one crystal of potassium permanganate which are uniformly distributed in large quantity of charge its water. From this what we conclude.

taking out 10 ml etc to this solution.

90 ml of water.

taking out of 10 ml of solution and add 90 ml of water.

Yes.

## CUMULATIVE ACTIVITIES.

Summarisation: Today we learnt about the pupil how small as matter particle of matter made.

Recapitulation:

1. with which the substance made.
2. what is the colour of the solution in the beaker.

Home assignment :

Explain how small is the particles of matter made.

## INTERNSHIP LESSON PLAN - 3.

Name of the student teacher: Sujoy Barman

Subject : Physical Science

Class : IX.

Date :

Unit : matter around us

Lesson : There exists space between us.

Period : 04

Name of the school :

Previous knowledge assumed: Pupil has the knowledge of particles space between particles.

Teaching point: force of attraction between the particles of matter.

Teaching method: Lecture cum demonstration,

Reference books: 1. A.P Govt. Text book of Pr.Sc (VIS)

2. A.P Govt. Text book of Pr.Sc (IX).

### Major instructional objectives and specification.

knowledge: The pupil acquires the knowledge of concept term in the lesson force of attraction, between the particles of matter.

Recall: The pupil recall the term dif. in the lesson force of attraction between particles.

Understanding: The pupil develops an understanding of knowledge of term definition in the lesson force of attraction between particles of matter.

Give reason: The pupil give reason for the situation method in the force of attraction between particles of matter.

Composes: The pupil composes the method in the lesson force of attraction between particles.

Skill: The pupil acquires the skill in observation drawing in the lesson.

Observation skill: The pupil develops his observation skill read the apparatus takes the observation clearly.

Interest: The pupil develops or interest in scientific phenomenon in the lesson, participation in debates and talks in relevant topics. Collective related hobbies like group school, science, club.

Scientific attitude: The pupil develop scientific attitude.

- ① choose the demonstration perform. Physical Science apparatus.
- ② develops scientific attitude contribution, characteristics like compatibility, honest etc.

①

### INTRODUCTORY ACTIVITY

Content analysis	Teacher's activity	Pupils' activity	BBW
Testing of previous knowledge	<p>to test the previous knowledge of the students I asked the questions -</p> <ul style="list-style-type: none"> <li>→ in how many states the matter may exist</li> <li>→ what are they</li> <li>→ with which the matter made of</li> <li>→ is space exist between particles</li> <li>→ There is force of attraction between the particles of matter.</li> </ul>	<p>three solid, liquid and gas. Particles. Yes. Yes.</p>	

Announcement of topic.

Content analysis	Objectives	Teacher's activity	Pupils' activity	BBW	TLM	Evaluation
force of attraction on particles of matter		<p>by opening water tap</p> <p>→ what I am doing</p> <p>→ Can you break the stream permanently</p> <p>→ Are you able to break the stream anywhere from the tap</p> <p>→ so, water is which type of substance</p>	<p>Opening the tap</p> <p>No.</p> <p>No.</p> <p>liquid.</p>	Tap		

water remains together

→ it is force of attraction between the particles of matter.

→ what is this

iron nail.

→ what am I doing

pressing the iron of wall

→ now what I am doing

blocking the piece of nail by hand

No

No

unable to do that does of anyone

chalk piece.

None what is this what am I doing

break the chalk piece

No

can we join the piece

why we can not join the piece because there is a force of attraction between the particles of water.

Pupil explain the force of attraction.

force of attraction between the particles of matter.

### Cumulative Activity.

Summarisation: Today we learn about the topic "force of attraction between the particles of matter."

Recapitulation:

1. The force of attraction between the particle is seen all the matter.
2. When you break the chalk piece it is possible to join.

Home assignment: Force of attraction between the particles of matter.

### Internship lesson plan - 09.

Name of the student teacher: Sujoy Barman

Subject : Physical science

Class : IX.

Date :

Period : 02

Unit : matter around us.

Lesson : effect of temperature.

Name of the school :

Previous knowledge: Pupil has the previous knowledge of the force of attraction between particles of matter.

method: teaching cum demonstration method.

teaching aid: charts, breaker, thermometer, overhead, pointer etc.

reference books: A.P Govt. Text books of Physical Science for IX and X.

methodology: methods of teaching Physical Science (Neel Kamal and Tatyasaheb Academy)

### Major instructional objectives and specification.

Knowledge: The pupil acquires the definition, term, concepts, in the lesson effect of temperature.

Recall: The pupil recall the definition, term, concepts, in the lesson of effect

Recognise: The pupil recognise the definitions term etc. of temperature.

Understanding: The pupil develops an understanding of knowledge of term definition in the lesson effect of temperature.

Explain: The pupil explain the different type of process in lesson effect of temperature.

Describes: The pupil describes the description method in lesson effect of temperature.

Reporting skill: Report the result with correct units.

Interest: The pupil develops an interest in scientific phenomenon in lesson effect of temperature.

Participation in debates: and talks on relevant topics.

Scientific attitude: The pupil develop scientific attitude.

- (a) co-operate with others, in arranging opportunity.
- (b) develops scientific attitudes, characteristics in partiality of the truth, honest, etc.

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 TRINITY (S.M) HIGH SCHOOL  
 DARSI. 523247. Puthesam Dt.

## INTRODUCTORY ACTIVITY

Content analysis	Teacher's activity	Pupils' activity	BBW
Testing previous knowledge	<ul style="list-style-type: none"> <li>→ how many <del>re</del> states of matter exist</li> <li>→ what are they</li> <li>→ coconut oil is generally in which state</li> <li>→ In winter season what is the state of coconut oil.</li> <li>→ When carbon is exposed to air what happens?</li> </ul>	<ul style="list-style-type: none"> <li>→ 3</li> <li>→ Solid, liquid and gas.</li> <li>→ liquid.</li> <li>→ solid.</li> <li>→ vapors.</li> </ul>	

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## Announcement of the topic.

Content analysis	Objectives	Teacher's activity	Pupils' activity	BBW	TLM	Evaluation
		<ul style="list-style-type: none"> <li>→ what is this</li> <li>→ Now what I am adding in this</li> <li>→ where I am keeping</li> <li>→ what is this</li> <li>→ what I am doing</li> <li>→ now what I am doing</li> <li>→ is the reading of thermometer changes</li> <li>→ Record the reading</li> </ul>	<p>beakers ice in contact to ice laboratory Thermometre notice the temp. change heating the beakers</p> <p>Yes.</p> <p>Pupil noted.</p>	<p>beaker ice</p> <p>Thermometre</p>	<p>beakers</p> <p>thermo-metre.</p>	

## CUMULATIVE ACTIVITY

Summarisation: Today we learn the topic effect of temp. on change.

Recapitulation: 1) what is fusion 2) what happen to the temp. after ice melts 3) what is boiling point of  $H_2O$ .

Home assignment: Explain how the effect of temp. change state of substance.

### Internship lesson plan - 05.

Name of the student teacher: Sujay Barman

Subject: Physical science

Class: IX.

Date:

Period: 04

Unit: Motion

Lesson: force of attraction.

Name of the school:

Previous knowledge: The pupil has the previous knowledge about the effect of temp. on change of its state.

Teaching point: Effect of change pressure.

Teaching method: Lecture cum demonstration method.

Material: Charts.

Reference books: A.P Govt. text book of Physical science  
for IX and VIII.

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### Major instructional objectives and specification.

**Knowledge:** The pupil acquired of term definition, concept in the lesson effect of change of temperature.

**Recall:** The pupil recalls the term, definition in the lesson effect of change of temperature.

**Recognise:** The pupil recognise the term, definition etc.

**Analysis:** The pupil analyses the concept, phenomenon in the lesson plan effect of pressure.

**Give Reasons:** The pupil give reasons for the situation in the lesson effect of change of pressure.

**Verifications:** The pupil verifies the above hypothesis in the lesson,

**Skill :** The pupil acquires the skill for phenomenon, reporting skill in the lesson effect of change of temp.

(4)

Observation skill: The pupils develop observation skill.

Appreciation: The pupil appreciate the contribution of scientific phenomenon in the life. Through the lesson "Effect of pressure".

Recognise the contribution to scientist to science.

Interest: The pupil develop interest in scientific phenomenon in the world of Physical Science participates in debates and talks on relevant topics.

Scientific attitude: The pupil develop scientific attitude.

Announcement of topic.

Content analysis	Teacher's activity	Pupils' activity	B&W / TLM
Testing of previous knowledge	<ul style="list-style-type: none"> <li>→ how many states are there</li> <li>→ what are they</li> <li>→ can we compress a solid</li> <li>→ can we compress liquid</li> <li>→ can we compress gas</li> <li>→ which one is easy to compress</li> </ul>	<p>3 Solid, liquid and gas. No. Yes. Yes. gas.</p>	

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## Announcement of topic.

Content analysis	Objective	Teacher's activity	Pupils' activity	BBW	TLM	Evaluation
Effect of change on Pressure	recall → Recognise	<ul style="list-style-type: none"> <li>→ in our home to cook food which gas is used</li> <li>→ The gas is liquified by applying pressure or temperature</li> <li>→ when by apply pressure on solid <math>\text{CO}_2</math> the <math>\text{CO}_2</math> is directly changes to gas on state when the pressure decreases to 1 atmosphere.</li> </ul>	<ul style="list-style-type: none"> <li>LPG</li> <li>Pressure.</li> <li>Solid</li> <li>high pressure.</li> </ul>			

that's why the solid  $\text{CO}_2$   
is called dry ice

→ so the state of substance  
indirectly changed to  
another state by  
decreasing pressure.

→ no temperature or  
pressure deteriorates  
the states whether they  
may be solids, gases  
or liquids.

→ Give some  
observation day to  
day life.

Pupil gave some  
example.

### CUMULATIVE ACTIVITY

Summarisation: Today we learn about the topic effect of change of pressure.

Recapitulation:

- 1) what is dry ice.
- 2) what happen when we decrease the pressure or temperature.

Home assignment:

what is effect of change of pressure. Explain.

## Partnership lesson plan - 06.

Name of the student teacher: Sujay Barman

Subject: Physical Science

Class: IX

Date:

Period: 05

Unit: Matter around us

Lesson: evaporation

School:

Previous knowledge: Pupil has the previous knowledge of states of matter effect of temperature and pressure.

Teaching point: Evaporation,

method: Lecture cum demonstration

Materials: charts, Roller board, pointer etc.

Reference books: A.P Govt. text books of Physical Science  
for VIII and IX.

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## CUMULATIVE ACTIVITIES.

Summarisation: Today we learn about the topic 'matter' states and its property.

Recapitulation:

- ① how is the shape of volume of solids.
- ② why the shape of liquid is not definite.
- ③ what is liquid?

Home assignment:

Lesson plan - 06.

Name of the student teacher: Sujoy Barman

Subject: Physical Science.

Class: IX

Date:

Period: 05

Time: 45min.

Unit: matter around us

Lesson: evaporation.

School:

Previous Knowledge: Pupil has the previous knowledge of states of matter effect of temperature and pressure.

Teaching point: evaporation.

Method: Lecture cum demonstration.

Materials: charts, pointer, marker board etc.

Reference books: A.P Govt. Text book of PSC for IX and X.

### Major instructional objectives and specification.

knowledge: The pupil acquires the knowledge of term, definition, concept in the lesson matter, states of matter, properties of solids, liquid and gases etc.

Specification:

concept: Matter exist in three states solids, liquids and gas. Properties of solid, liquid and gas.

Recognises: Pupil recognise the above definitions, concepts, form, individual situations.

Understanding: The pupil develops an understanding of knowledge & of the term definition, concept etc.

Explains: The pupil explains the above concept, def term, in the lesson matter.

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### Introductory activities.

Content analysis	Teacher's activity	Pupils' activity	TLM and BBW
Testing the previous knowledge of the student	<ul style="list-style-type: none"> <li>→ what is this</li> <li>→ it is soft or hard</li> <li>→ what is this</li> <li>→ is it a softer or harder</li> <li>→ what is this</li> <li>→ is it a softer or harder</li> <li>→ what is the difference between them</li> <li>→ what is this</li> <li>→ what is this</li> </ul>	<ul style="list-style-type: none"> <li>chalk</li> <li>softer</li> <li>duster</li> <li>softer.</li> <li>stone</li> <li>harder.</li> <li>The substance with which they made up of</li> <li>bottle</li> <li>cloth</li> </ul>	<ul style="list-style-type: none"> <li>chalk piece.</li> <li>duster.</li> <li>stone.</li> <li>stone.</li> <li>bottle.</li> <li>earth.</li> </ul>

## Announcement of the topic.

Content analysis	Teacher's objective	Pupils' activity	B.BW	TLM	Evaluation
<p>Evaporation is the phenomenon is the change of state from liquid into gas.</p>	<ul style="list-style-type: none"> <li>→ in our home we see drying wet clothes in air</li> <li>→ here the clothes dry, without reaching its b.p</li> <li>→ when we keep naphthalene balls in air what happens,</li> <li>→ when we keep camphor in air what happens</li> <li>→ what are reason behind this evaporation.</li> </ul>	<p>Yes.</p> <p>Yes.</p> <p>evaporates.</p> <p>evaporates.</p>			

## Cumulative activity.

Summarisation: Today we learnt about the topic evaporation.

Recapitulation: Give some example which change directly liquid to vapour what is evaporation.

Home assignment: Explain about evaporation.

## Lesson Plan - 07.

Name of the student teacher: Sujay Barman

Subject: Physical science.

Class: IX

Period: 04

Unit: Matter around us.

School:

Date:

Previous knowledge: Pupil has the previous knowledge about states of matter  
effect of temperature, pressure and evaporation.

Teaching point: Effect of surface area, humidity.

Method: Lecture cum demonstration method.

Materials: Chalk pointer, O roles board etc.

Reference books: A.P Govt. books of 'Prse for VII and VIII'.

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Major instructional objectives:

knowledge: The pupil acquires the knowledge of concept of terms definition in the lesson effect of surface area, humidity wind.

Recall: The pupil recalls the term definition in lesson effect of surface area, humidity and wind speed.

Recognise: Pupils recognise the term, definition etc.

Understanding: Pupil develops an understanding of knowledge of term definition.

Verifies: Pupil classifies different type of substances in the lesson effect of surface area and humidity

Proves: Pupil proves the concept, experiment in the lesson

Application: Pupil applies his knowledge.

(20)

## Announcement of the topic.

Content	Objective	Teacher's activity	Pupil's activity	BBW	TLM	Evaluation
		<ul style="list-style-type: none"> <li>→ to measure the speed of car which instrument is used.</li> <li>→ is there any change in speed of car travelling in neutrality</li> <li>→ How can be calculate the instantaneous speed of the body at a certain point</li> </ul>	<p>Speedometer.</p> <p>Yes</p> <p>Calculate.</p>			<p>Mr. Reckhaud</p> <p>67</p>

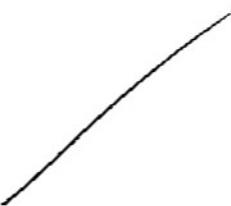
Content	Objective	Teachers' activity	Pupils' activity	TLM	B/BW	Evaluation
Testing the previous knowledge		<ul style="list-style-type: none"> <li>→ what is average speed</li> <li>→ units of avg. speed.</li>   <li>→ what you are travelling in how can we locate the speed of the car.</li>   <li>→ is there any change in the speed of the object which is in motion.</li> </ul>	<p>the distance covered by object act on unit time m/s.</p> <p>Speedometer.</p> <p>Yes.</p>			

Cumulative activity.

Summarisation: Today we learnt about the motion.

- Recapitulation:
- ① what is motion
  - ② motion is combined property of what according to the observer.

Home assignment: Observe the objects which are in motion, around your surrounding.



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### Lesson Plan - 09

Name of the student teacher: Sujay Barman.

Subject : Physical science

Class : IX

Date :

Unit : Motion.

Lesson : Average speed.

Period : 03

School :

Previous knowledge: Pupil has the previous knowledge of length, displacement.

Material: chart, Pointer, roller board etc.

Teaching point: Average speed.

Method: Lecture cum demonstration.

Reference books: A.P. Board, text books for IX and X.

### Major instructional objectives and specification.

knowledge: Pupils acquire the knowledge of terms, definitions, concepts.

Recall: Pupil recalls the term, definition, concept in this lesson.

Recognise: Pupil recognise the term, definition, objects.

Understanding: Pupil develops an understanding.

Explain: The pupil explain different type of method.

Forces: Pupil proves the working concept.

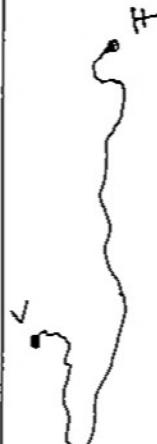
Application: The pupil applies his knowledge and understanding.

Analysis: Pupil analysis the concept.

Verifies: Pupil verifies the above hypothesis.

Content analysis	Objective	Teacher's activity	Pupils' activity	B&W	TLM	Evaluation
Testing of previous knowledge		<ul style="list-style-type: none"> <li>→ what is distance</li> <li>→ what are the units of distance</li> <li>→ what is the unit of time.</li> <li>→ do you travel guntur to vijaywada by bus.</li> </ul>	<p>distance is the length of the path travelled by an object in a given time interval.</p> <p>meter.</p> <p>second.</p> <p>Yes.</p>			

2x

Content analysis	Objective	Teacher's activity	Pupils' activity	BBW	TLM	Evaluation
Average speed.		<p>A train named Godavari express starts at 5.0 pm from Vishakapatnam and reached Hyderabad at 5.00 am the next day.</p> <ul style="list-style-type: none"> <li>→ what is starting point</li> <li>→ what is ending point.</li> <li>→ what is total time taken for journey</li> <li>→ total distance travelled</li> <li>→ distance covered in each hour.</li> <li>→ how do you find it.</li> </ul>	<p>Vishakapatnam Hyderabad.</p> <p>12 hrs.</p> <p>720 km.</p> <p><math>720 \div 12 = 60 \text{ km/h.}</math></p> <p>Avg. speed  <math>\frac{\text{total distance}}{\text{time taken}}</math></p>			

## CUMULATIVE ACTIVITY

Summarisation: Today we learnt about the topic avg. speed.

Recapitulation:

- ① what is avg. speed.
- ② what are the units.

Home assignment: what is avg. speed, formula, and write its unit.

If a person travel a distance at st. line then what is the avg. speed of the person.

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### Lesson Plan - 10.

Name of the student-teacher: Sujay Barman

Subject: Physical science.

Class: IX

Unit: motion,

Lesson: Avg. velocity

Date:

Period: 05

School:

Previous knowledge: Pupil has the previous knowledge of the distance displacements and its units.

Teaching point: Avg. velocity.

Teaching method: Lecture cum demonstration.

Teaching learning material: flannel card, Ruler board, pointer etc.

Reference books: A.P Text. textbook of PSC for VII and VIII.

Major instructional objectives.

Knowledge: The pupil acquires the knowledge of terms, definition etc.

Recall: The pupil recalls the term, definition, concepts in the lesson.

Recognise: The pupil recognise different term.

Understanding: The pupil develops an understanding of knowledge.

Explain: The pupil explains different types of method in the lesson.

Compares: The pupil compares methods, processes in the lesson.

Express units: The pupil express appropriate units for the concepts variables i.e result in the lesson.

Content analysis	Objective	Teacher's activity	Pupils activity	BBW	TLM	Evaluation
<u>Avg-velocity</u>  The displacement of an object per unit time is average velocity		<ul style="list-style-type: none"> <li>→ Observe the route of Godamari express.</li> <li>→ what is displacement of train in each hour.</li> <li>→ what is the time taken by train to travel.</li> <li>→ what is displacement of train</li> <li>→ at a particular time a object get's displacement.</li> </ul>	<p>Observed.</p> <p>360 km</p> <p>12 hr.</p> <p><math>360/12 = 60 \text{ km/hr.}</math></p> <p>Yes.</p>			

## Cumulative Activity.

Summarisation:

Today we learnt about the avg. velocity.

Recapitalation:

- ① what is avg. velocity?
- ② what are avg. velocity?
- ③ is avg. velocity is scalar/vector.

Home assignment: what is avg. velocity and unit?

Lesson Plan - 11

Name of the student teacher: Anjali Barman.

Subject: Physical Science

Class: IX

Period: 05

Unit: motion.

Lesson: instantaneous speed.

School:

Previous knowledge: Pupil has the previous knowledge about displacement, avg. speed, avg. velocity.

Teaching point: instantaneous speed at particular point.

Teaching method: Lecture cum demonstration.

Teaching learning material: chart, pointer, marker board, duster etc.

Reference books: A-P Govt. text books for IX and X.

Major instructional objectives.

Knowledge: The pupil acquires the knowledge of term, definition, concepts.

Recalls: The pupil recalls the def., term, concepts. etc.

Recognise: The pupil recognises the above term, definition, concepts.

Understanding: The pupil applies his understanding of knowledge of terms in the lesson.

Explain: The pupil explains different types of method.

Describe: The pupil describe procedure in the lesson.

Proves: The pupil proves the procedure in the lesson.

Application: The pupil applies his knowledge and understanding.

(3)

Content analysis	Objectives	Teacher's activity	Pupils' activity	B&W	Evaluation
		<ul style="list-style-type: none"> <li>→ what we take on X axis</li> <li>→ what we take on Y axis</li> <li>→ what is the avg. speed between <math>t_1</math> and <math>t_2</math></li> <li>→ Units of avg. speed.</li> <li>→ The lesson in the graph passes through which point. The slope gives → of the constant that instant.</li> <li>→ If the time decrease then the value.</li> </ul>	<p>time distance</p> $\text{avg. speed} = \frac{s_2 - s_1}{T_2 - T_1}$ <p>m/s.</p> <p><math>t_1</math> and <math>t_2</math></p> <p>speed.</p>	<p>↑ displacement</p> <p><math>s_3</math></p> <p><math>s_2</math></p> <p><math>s_1</math></p> <p><math>t_1</math> <math>t_2</math> <math>t_3</math></p> <p>→ time</p>	<p>Ki - Reichenau</p> <p>55</p>

avg. speed decrease at  
particular point-

we can find the slope of the  
curve at any point on it by  
drawing

→ which is the slope of this  
tangent.

→ what is the point of avg. speed.

→ The speed at  $t_3$  is called

→ If slope is increased then  
speed

If slope decrease

Yes.

tangent.

Avg. speed.

$t_3$

instantaneous speed.

increase.

decrease.

cumulative activity.

Summarisation: Today we learnt about the topic instantaneous speed.

Recapitulation: what is instantaneous speed.  
what are the units of instantaneous speed.

Home assignment: Explain what is instantaneous speed.

2

Lesson Plan - 12.

Name of the student teacher: Sujoy Barman

Subject: Physical Science.

Class: IX.

Date:

Period: 05

Unit: Motion

Lesson: distance time graph.

Previous knowledge: The pupils acquire the previous knowledge of instantaneous speed.

Teaching point: distance time graph, velocity graph.

Teaching method: Lecture cum demonstration.

Material: velocity, charts, and distance, time approach.

Reference books: A.P Govt. text book for IX and VII.

Major instructional Objectives.

knowledge: The pupil acquires the knowledge of the terms, concepts in the lesson motion.

Recall: The pupil recall the term, definition, concepts in the lesson motion.

Recognise: The pupil recognise the above term.

Understanding: The pupil develops their understanding.

Explain: The pupil explain different type of processes.

Verifies: The pupil verifies the above knowledge.

Proves: The pupil proves the working procedure.

Content analysis	Objective	Teacher's activity	Pupils' activity	TLM	S.B.W	Evaluation
Motion.	Recall	<p>by showing two person A and B the black head in which on side to the person A.</p> <p>by showing the person B the head is which side to this person.</p> <p>Now it is morning / evening</p> <p>In the same way now do America evening / morning</p>	<p>Right-</p> <p>left.</p> <p>Morning</p> <p>evening.</p>			

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- |  |  |   |  |  |
|--|--|---|--|--|
|  | <ul style="list-style-type: none"><li>→ in which side A is</li><li>→ in which side B is</li><li>→ to air is which side</li><li>→ to A, B which side</li><li>→ from the observation of day<br/>and night and left up<br/>and down swim like what-</li><li>→ all these term relative<br/>or not</li><li>→ so, we can always say<br/>motion is relative</li></ul> | <p>up.</p> <p>down,</p> <p>downwards</p> <p>downwards</p> <p>observation,</p> <p>Yes.</p> <p>Yes.</p> |  |  |
|--|--|---|--|--|

cumulative activity.

Summarisation: Today we learnt about the topic distance time velocity graph.

Recapitulation:

- ① How we find the instantaneous speed.
- ② The instantaneous speed and slope of the tangent is inversely proportional.  
is right/wrong.

Home assignment)

Explain the graph between distance  
time velocity.

Lesson Plan - 13

Name of the student

teacher: Sujay Barman  
subject: Physical science

Roll no:

class: IX

time: 45 mins.

topic: Matter around us

Subtopic: matter properties.

Date:

Period: 04

School:

Previous knowledge: The pupil has the previous knowledge of materials.

Teaching points: ① Properties solids, liquids, gases,

② Identifying the shape and volume of solids, liquids and gases.

Teaching methods: Lecture cum demonstration,

Material: Charts, Pointers, stone cloth etc

Reference books: A.P Govt. text book of Physical science for IX.

### Instructional Objective.

knowledge: The pupil acquires the knowledge of concepts, definitions,

Recall: The pupil recall the definition, term, concepts in the lesson.

Recognise: The pupil recognise the definition, term, concepts in the lesson.

Application: The pupil applies his knowledge and understanding.

Give reason: The pupil give reason for the situation phenomenon in the lesson.

Generation: The pupil generates the situation in Physical Science lesson.

Skill: The pupil acquires the skill in observation and reporting  
skill in the lesson.

Introductory activity

Content analysis	Objective	Teacher's activity	Pupils' activity	TLM	BBW	Evaluation
Testing the previous knowledge		<ul style="list-style-type: none"> <li>→ How many states of matter exists.</li> <li>→ What are they</li> <li>→ Do we always need heat to change the state.</li> <li>→ Can we change the state from liquid to vap. without reaching the liquid it b.p</li> </ul>	<p>3</p> <p>Solid, liquid and gas.</p> <p>Yes.</p> <p>No.</p>			

### Announcement of the topic

Content analysis	Objective	Teacher's activity	Pupils' activity	TLM	BBW	Evaluation
state of matter.		<p>what is this In which state is this? what is this? In which state is this? After sometime what happens to ice? Now it is in which state? On heating water what do you observe? It is in state? From the above statement what do you observe? In how many states the water exists? What are they?</p>	<p>stone. solids. ice solid. it melts and changes into water. liquid. water vapour. Gaseous state. There is change in the states of water. 3 states. Solid, liquid, gas.</p>			

Is there any substance which exists in all the three states

man.

Tell me some objects which you found around us with its state.

bench - solid  
wall - solid  
milk - liquid  
 $\text{CO}_2$  - gas.

Is petrol and milk exist in liquid state?

Yes.

Are these properties same

No.

Cumulative Activity.

Summarisation: Today we learnt about the topic "matter, states and its properties".

Recapitulation:

- ① How is the shape of volume of solids.
- ② why the shape of liquid is not definite.
- ③ what is liquid?

Home assignment:

Observe by taking different utilities in your home by pouring water and identify its shape and volume.

Lesson plan - 14

Name of the student teacher: Sujoy Barman

Roll no :

Class : IX

Subject : Physical Science

Unit : Air, winds and cyclone.

Topic : Wind and cyclones.

Time : 45 mins.

School :

Previous knowledge Assumed: Pupil already know about air, air pressure.

Reference books: ① 9<sup>th</sup> class text book of A-P  
② Methodology: New era publication.

Teaching aids: Blackboard, chalk, duster, pointer, chart etc.

Teaching method: Lecture and demonstration method.

Teaching learning points: - Uneven heating at equator and poles.  
- Uneven heating of land and water.  
- cyclone.

## Introductory Activity.

Content	Teachers' activity	Pupils' activity	B.B.W	T.L.M
<u>Introduction:</u> <u>wind and cyclones</u>	<p>Good morning children.</p> <ul style="list-style-type: none"><li>- what are called moving</li><li>- what are called fast moving air/storms on earth.</li><li>- So what will we learn today.</li></ul>	<p>Good morning sir,</p> <ul style="list-style-type: none"><li>- wind.</li><li>- cyclone</li><li>- wind and cyclone.</li></ul>		

Announcement of the topic: I will say "So, we are going to learn about wind and cyclone" and fill the topic column on the blackboard.

Developmentary activity.

Content analysis	Specification and objectives	Teachers' activity	Students activity	BBW	TLM	Evaluation
The ease of winds in areas near large water bodies includes sea and oceans uneven heating takes place on the surface of the earth. There are no. of reasons for this .	Pupil understand about uneven heating on the earth.  if observation  Pupil will understand about the uneven distribution of sunlight in the earth.	what about wind on the other parts of the earth.  using different areas have different temperature	different areas have different temperature.  There are nos. of reasons .			
		Do all the regions of earth gets equal sunlight	No.			

Cyclone is a form of violent storm on earth people call these storms by different names such as typhoons, hurricanes etc.

depending on where they occur.

Tropical cyclones are like giant engines.

A / season

Pupil will understand about cyclones

K / recall

Do winds cause harm

How it causes

- Many which period of time causes cycle.

- what are the names of storms?

- How we can have the knowledge of cyclone.

Yes

- Due to cyclone so many people are affected.

- Due to cyclone so many people are affected.

- May - June

- Oct - November

- Typhoons

- Hurricanes

- By the help of T.V news-papers

radio.

## cumulative activity.

Summarization: So we learnt about wind and cyclones and its effect-

Recapitulation:

- Uneven heating on the earth causes wind-current.
- fast moving wind may cause cyclone.
- cyclone may also caused due to pressure difference

### Assignment:

- How will you help your neighbours in case cyclone approaches your village / town.
- Write different types of cyclone.
- The centre of cycle is called — ?

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Lesson plan - 15

Name of the student-teacher: Sujay Baranam

Roll no :

Class : IX

Unit : Physical Science

Topic : Earthquake

Time: 95 mins.

School:

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Previous knowledge: Pupil will have the knowledge about earthquake.

Reference books: ① 9<sup>th</sup> class text book of A.P  
② Methodology - Physical Science case book.

Teaching aids: Black board, chalk, duster, charts, pictures, pointer etc.

Method of teaching: Lecture and demonstration method.

Teaching learning method:  
① About Earthquake  
② Causes of Earthquake  
③ Preventions / measures for earthquakes

Major instructional objectives:

Terms - Coast, Earthquake, discharge, seismograph, Richter-scale, magnitude, seismic hazard map, fault zone.

Facts: Earthquake is a natural phenomenon which were not able to predict.

Knowledge: For pupil acquire the knowledge of facts, formula etc by lesson.

Specification:

① Recall - The pupil recall the terms, facts. etc in the lesson

Recognition - The pupil can recognise the facts that earthquake occurs all over the world.

Understanding: The pupil understands the earthquakes.

Specification:

- ① Gives examples: The pupil can give examples of the areas like Kashmir, western, central, Himalayas etc.
- ② Compares: The pupil can compare earthquake from other natural phenomena like lighting, flood etc.
- ③ Explains: The pupil explain about earthquake in his own words.
- ④ Identification: Pupil can identify the seismic zone areas in the map.

Application: Pupil can apply the knowledge in the new situations

e.g. He can protect himself by following the precautions measures where earthquake occurs.

Specification:

- Give examples: The pupil can give examples of the areas like Kashmir, western, central Himalaya.

Analysis: Pupil can analyse that earthquake is caused by the distance of the earthquake.

Devices: The pupil can make the model device of seismograph as seismographs.

Selects: Pupil will select seismograph to measure the seismic waves.

Predicts: The pupil can predict the symptoms of an earthquake.

Give reasons: Pupil can give reasons for earthquake - cause.

Establishes relation: The pupil can establishes relations.

e.g. The pupil can establish relation between the increase in magnitude and increase in destructive energy.

Skills: The pupil develops many skills as follows.

- ① Observational skill.
- ② Drawing skill.
- ③ Reporting skill.

(iii)

Content analysis	Objective	Teachers' activity	Student activity	B.B.W	TLM
<p><u>Introduction:</u></p> <p>Testing previous knowledge and motivation</p>		<p>Good morning children</p> <p>How many planets are there in our solar systems.</p> <ul style="list-style-type: none"> <li>- In which planet you live?</li> <li>- Name two natural calamities</li> <li>- what happens when there is sudden shattering of the earth?</li> <li>Do you know what are these called?</li> </ul>	<p>Good morning</p> <ul style="list-style-type: none"> <li>- 8 planets.</li> <li>- Earth.</li> </ul> <p>Flood, Tsunami, earthquake.</p> <p>All building trees will come down.</p> <p>Earthquake</p>		

Announcement of the topic: Then I will declare the topic that today we are going to learn about 'Earthquake' and write it at the topic column of the Black-board.

80  
77

## Developmentary activity.

Content analysis	Objective	Teachers' activity	Pupils activity	B.B.W	T.M	Evaluation
<p>concept - ①</p> <p>- In Earthquake is a sudden shaking or trembling of the earth lasting for a very short period of time. It is caused by a disturbance deep inside the certain crust. There is a myth that the earth is balanced on the hand of the ball and even the ball shifts it to the other the earthquake occurs. The cause - The cause dangerous to the buildings, bridges, dams, people etc.</p>	<p>K Recall</p> <p>Q give reason</p> <p>K Recall</p>	<p>An earthquake is a sudden shaking or the trembling of the earth lasting for a very short period of time.</p> <p>what is an earthquake</p> <p>Do you know why these earthquake occur?</p> <p>It is caused by a disturbance deep inside the earth crust.</p> <p>what is the reason?</p> <p>Do you know where earthquake occurs?</p>	<p>- Tell in your own words</p>	<p>Earthquake</p>	<p>chart.</p>	
				No		

Q5

A major Tsunami occurred in the Indian ocean on 26<sup>th</sup> dec 2004.

Tremours are caused due to the disturbance deep down inside portion of the upper most layer of the earth.

U  
Predict

A  
estimates  
A  
cause & effect.

Earthquake occurs all over the earth.

- \* All over the earth mean?
- \* What will be damaged by earthquake
- \* Do you know why flood Tsunami occurs.

The earthquake causes tsunami under sea.

What is the reason?

A major Tsunami occurred in Indian ocean in December

Ocean.

On 26<sup>th</sup> dec. 2004.

Earthquake else.

- Building
- Injuries
- No.

Indian ocean  
on 26<sup>th</sup> dec  
2004.

L8

## Cumulative activity.

Summarization: So, today we learn about earthquake and the terms related to this notes natural calamities.

### Recapitulation:

- Terms
- Crust,
- Volcano.
- Lava
- Seismic point.

Assignment: Describe the causes of earthquake.

- List the destruction that takes place due to earthquake.

(16)

### Lesson plan - 16

Name of the student teacher: Sujoy Barman

Roll no:

Class : 10.

Subject: Physical Science.

Unit: Air and its construction.

Topic: Components of air.

Time: 45 min.

School:

Previous knowledge: Students have already known the knowledge of components of air.

Reference books: ① Content -  
9<sup>th</sup> class text book of A.P.  
② Methodology — New era publication.

Teaching aids: black-board, chalk piece, duster, pointer, chart, balloon hand-fan etc.

Teaching method: Lecture - cum demonstration method.

Teaching learning points: ① Air is all around and is a mixture.  
② Composition of air.  
③ Discovery of Carbon-di-Oxide, Oxygen.

at

## Introductory Activity.

Content	Objective	Teachers' activity	Pupils' activity	B.I.B.W	T.L.M
<u>Introduction:</u>		<ul style="list-style-type: none"> <li>- (Bursting the balloon)</li> <li>- what did you find?</li> <li>- Could you see air?</li> <li>- where is air?</li> </ul>	<ul style="list-style-type: none"> <li>- Air comes out from the balloon</li> <li>- No</li> <li>- Everywhere.</li> </ul>		

Announcement of the topic: Then I will announce the <sup>topic</sup> ~~topic~~ and write it on the black-board.

## Developmental activity.

Content	Objectives and specifications	Teachers' activity	Pupils' activity	B.B.W	T.L.M	Evaluation
K/ Recall will say the properties of air	<p>- what are the properties of air?</p> <p>- where is it?</p> <p>- what are the components of air?</p> <p>what are the uses of air</p>	<ul style="list-style-type: none"> <li>- what is properties of air?</li> <li>- where is it?</li> <li>- what are the components of air?</li> <li>- what are the uses of air</li> </ul>	<p>It is invisible</p> <p>- It has mass.</p> <p>Everywhere various gas</p> <ul style="list-style-type: none"> <li>- balloon</li> <li>- blowing</li> <li>- fire, lighting</li> </ul>	<p>has mass</p> <p>If it is a matter.</p> <ul style="list-style-type: none"> <li>- Everywhere</li> <li>- Oxygen</li> <li>- Nitrogen</li> <li>- Carbon-dioxide</li> <li>- Argon.</li> <li>etc.</li> </ul>		

cumulative activity:

Summarization: Today we have learnt about air and of its properties.

Recapitulation: Air is all around.

Air is a mixture of many gas.

Assignment: Write the composition of air.

Name the things for which air used?

Lesson plan - 17.

Name of the student- teacher : Sujay Barman

Roll no :

Class : IX

Subject : Physical Science

Topic : Parallel Circuit.

Time : 45 mins.

School :

(ii)  
Previous knowledge: Pupils have already the knowledge of bulb.

Reference books: ① In class Text books of A.P.  
② Methodology: New era publication.

Teaching aids: Black-board, chalk, duster, chart, pointer etc.

Teaching method: Lecture-demonstration method.

Teaching Learning Points: +ve wire  
+ ve terminal  
- ve terminal  
- bulb.

- Objectives:
- Pupil will learn about the terminals.
  - Distinguish terminals.
  - can comment fault in different connections.

Specification:

- ① Learner can connect bulb in parallel series.
- ② Tell the +ve and -ve terminal of a cell.
- ③ Arrange electrical equipment in order.

### Inductive activity.

Content	Pupil's activity	Teacher's activity	Pupil's activity	B.B.W	TLM
parallel connection of bulbs.		<p>Good morning students</p> <ul style="list-style-type: none"> <li>- In previous class what we have learnt?</li> <li>what are this</li> <li>showing bulb.</li> </ul> <ul style="list-style-type: none"> <li>- Can you connect them in parallel series</li> </ul>	<p>Good morning sir.</p> <ul style="list-style-type: none"> <li>- Parallel series connection.</li> <li>- bulb.</li> </ul> <ul style="list-style-type: none"> <li>- No.</li> </ul>		

Announcement of the topic: Then I will declare the topic that "today we are going to learn about the parallel connection of bulb and write the topic on black board.

### Developmental activity.

Content-	Objectives and specification	Teachers activity	Pupils activity	B.B.W	T.A.M	Evaluation
<p>There are parallel contact - the eve and the - re terminal of a battery by using 'Cu' wire have to connect to the bulb. It glow brightly - connecting bulbs in series and parallel.</p>	<p>Verification Skill / know Pupil understand and the knowledge of connecting bulbs in series and parallel.</p>	<ul style="list-style-type: none"> <li>- can you classify between series and parallel connection.</li> <li>- Draw the symbol and ray diagram the circuit diagram.</li> <li>- How many cells can be connected</li> <li>- What is the base that the bulbs are connected.</li> </ul>	<ul style="list-style-type: none"> <li>- In series falls remain in line but in parallel they remain parallel to each other.</li> <li>  </li> <li>- No found.</li> <li>- Copper wire.</li> </ul>			

(51)

Take three small bulbs, connect those bulbs in series with en-wire. The +ve and -ve ends can be connected to cell as connect bulbs in parallel ends of the en-wire connect to the cell.

series

A/ lesson

what is the use of connecting bulbs in series

In the series connection anyone bulb is if working then remaining fails will not glow.  
- wire consumption is less.

what is the use of bulbs connected in parallel.

For parallel connection one can find easily the bulb when was damaged can remove.

series  
connection

cumulative activity.

Generalisation: Today we have learnt about the parallel connection of bulbs.

Recapitulation: Parallel connection.

Series connection.

Assignment: Write the use of parallel and series connection in our day today life.

Lesson plan - 18.

Name of the student teacher : Sujoy Barman

Roll no :

Subject : Physical science

Class : IX.

Topic : Types of mixtures

Duration: 45 mins.

School :

Previous knowledge: Pupil have already the knowledge of—  
— Definition of mixture  
— Properties of mixture.

Reference books: Standard IX text book of A.P. govt.  
Methodology - New Era Publication.

Teaching aids: Black board, chalk, duster, chart, pointer etc.

Teaching method: Induction method.

Parts of teaching-learning: — Properties of mixture.  
— Classification of mixture.

## Objectives and specifications.

### Objectives:

① Knowledge: The student acquire the knowledge on the concept of finding mixture.

#### specification: The pupil

- ① Recall the definition of mixture
- ② Properties of mixture.

② Understanding: The student understand the concept of finding mixture.

#### specification: The pupil will

- ③ Give examples of mixtures. *flexibility*
- ④ Give examples of types of mixture.

④ Application: The student apply the knowledge on the concept of mixtures finding.

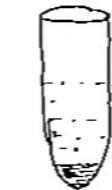
skill: The pupil acquires various skill regarding with teaching points.

## Introductory activity.

Content-	Teachers' activity	Pupils' activity	B.B.W	T.L.M
Introduction and Previous knowledge test.	Good morning children <ul style="list-style-type: none"> <li>- what did we have learnt yesterday.</li> <li>- Are all mixtures same?</li> <li>- Do you know human types of mixture are there?</li> </ul>	Good morning sis. <ul style="list-style-type: none"> <li>- About mixtures.</li> <li>- No.</li> <li>- No.</li> </ul>		

Announcement of the topic: Then I will announce the topic that "Today we are going to learn about different types of mixtures and then write topic on back-board."

### Developmental activity.

Content	Objective	Teachers' activity	Pupils activity	T.B.M	B.B.W	Evaluation
		<p>Take two test tube . fill one test tube with water and other with kerosine.</p> <p>Add one tea-spoon of salts in both the test tube and store them.</p> <p><del>what do you notice in the test tube</del></p> <p>In this case salt dissolved and disappeared</p>	<p>- salt mixed do not seen.</p>	 <p>water + salt.</p>	 <p>Kerosine + salt.</p>	

A) observation skill.

Such types of mixtures are called homogeneous mixtures.

What do you see in the 2nd test-tube.

What did you conclude from it.

- kerosene and water.

- it is not homogeneous.

- air

- sugar-water solution.

- sand & iron freely

water mud.

B) recall

- Give examples of homogeneous mixture.

C) Recall

- Give some examples of heterogeneous mixture.

### Cumulative activity

\* Generalisation: Today we learnt about the topic reversible and irreversible reactions.

#### Recapitulation:

- ① Reversible reactions.
- ② Irreversible reactions.
- ③ Symbol used in reaction.

Assignment: Differentiate between reversible and irreversible reaction.

- Give 5 examples of each type of reaction.

Lesson plan - 19.

Name of the student teacher: Sujay Barman

Subject: Physical Science.

Class: IX.

Unit: Rates of reaction.

Topic: Reversible and irreversible reaction.

Time: 45 min.

School:

Previous knowledge assumed - Pupils have already the knowledge of different types of reactions.

Books referred: ① Content - standard IX text book.  
② Methodology - New Era publication.

Teaching aids: Different types of reactions.

Teaching method: Lecture cum demonstration method.

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Objectives and specification.

knowledge: Students will get the knowledge of reversible and irreversible reactions.

Specification: Recognition: Students recognise the irreversible and reversible reaction.

Understanding: Student will understand the reactions.

Specification: Compares: Student compare the words of reversible and irreversible reactions.

Applications: Student apply the reversible and irreversible reaction in chemistry.

Generalisation: Student generalise the reversible and irreversible reaction.

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### Introductory activity.

Content	Teachers' activity	Pupils' activity	B.B.W	T.L.M
Previous knowledge	<ul style="list-style-type: none"> <li>- Good morning children</li> <li>- what did you learn yesterday.</li> <li>- If you go towards east 5 steps &amp; then come back 5 steps towards what would you call.</li> <li>- In case of mixture the uses also given thing.</li> </ul>	<p>Good morning Sir</p> <ul style="list-style-type: none"> <li>- About different kinds of reactions.</li> </ul> <p>Reverse - morin</p>		

Announcement of topic: So, I will announce the topic and fill in the topic column.

## Developmental activity.

Content-	Objectives and Specification	Teachers' activity	Pupil activity	T.L.M	B.B.W	Evaluation
	Key of reaction recall.	<p>Give some examples of reactions chemical.</p> <p>If you cut a paper something change takes place</p> <ul style="list-style-type: none"> <li>- If your friend -</li> <li>- what is the change</li> </ul> <p>will you get back the paper.</p> <p>what did you find?</p>	<ul style="list-style-type: none"> <li>- ignition of fuel.</li> <li>- Burning of people.</li> </ul> <p>No.</p> <p>Yes</p> <ul style="list-style-type: none"> <li>- A new thing obtains,</li> <li>- No</li> <li>- No coming back of original thing.</li> </ul>			

## Cumulative activity.

Generalisation: Today we learnt about the topic reversible and irreversible reactions.

### Recapitulation:

- ① Reversible reactions.
- ② Irreversible reaction.
- ③ Symbolized in reaction.

### Assignment:

Differentiate between reversible and irreversible reaction.

- Give 5 examples of each type of reaction.

Lesson plan - 20.

Name of the student-teacher: Sujay Barman

Subject : Physical Science .

Class : IX.

Unit : Diffusion of Liquids.

Topic : Matter around us.

Duration: 45 min.

School:

Previous knowledge: Students have already the knowledge of

- ① Properties of solids.
- ② properties of liquids.
- ③ Properties of gases.

Reference books:

- ① Content - class text book.
- ② Methodology - New Era publication.

Teaching aids: Black-board, chalk, duster, pointers etc.

Teaching method: Lecture cum demonstration method.

Point of teaching: Liquids, diffuses, diffusion.

## Objective and specification.

### Objectives.

① Knowledge: The pupil will acquire the knowledge of diffusion.

Specification: ① Recalls the structure of liquid.

② Recalls properties of liquid.

④ Application: Pupil will apply the knowledge of diffusion of liquids.

Specification: Pupil apply diffusion process or day to day life.

⑥ Understand: Pupil will understand the knowledge of diffusion.

### Introductory activity

Content	Teachers' activity	Pupils' activity	B.B.W	T.L.M.
Introduction.	<p>Good morning children</p> <ul style="list-style-type: none"> <li>- Take water and milk mix it.</li> <li>- what did you find.</li> <li>- Can you separately seen them.</li> </ul>	<p>Good morning Sir.</p> <p>water mixed in milk</p> <ul style="list-style-type: none"> <li>- No.</li> </ul>		

Announcement of topic: Then I will announce the topic and write it on black-board.

## Developmental activity.

Content	Objectives and specification	Teachers' activity	Pupils' activity	B.B.W	T.L.M	Evaluation
<p>Take some of breaker &amp; fill it with water. use a dropper and peeta drop of blue ink to the solution slowly.</p>	<p>S/recalls the properties of liquid.</p>	<p>Observe the liquids diffusion process. Now feel, what is diffusion.</p> <p>we find the diffusion of liquid</p> <p>Liquids also diffuses.</p>	<p>The movement of vapour of scent smoke, is known diffusion.</p>			

s/ Recall the properties of gases.

what did you observe after adding the ink drop or  $\text{KMnO}_4$  drop.

You can observe that liquids also diffuse into each other like gases.

How much time does it take to spread evenly throughout water.

Theory : Only mixed with water.

not - constant - depends upon amount of water.

- size of container,

## Cumulative Activity.

### Generalisation:

To day we have learnt about diffusion process in liquids.

### Recapitation:

Diffusion in gases.

Diffusion in liquids.

Diffusion and properties of gases and liquids.

### Assignment:

- ① Define diffusion.
- ② How will you explain the diffusion in liquid.
- ③ Draw and show the diffusion of liquids.

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