47

CERTIFICATE

III sem physical Science

This is to certify that Mr./Mrs/Kum.....

Class No:.....Regd.No.....of SMS&SMCMR College of Education visited our institution and conducted the required activities / collected the required data regarding to.....

practicum as a part of B.Ed. Course work stipulated by the Government of Andhra Pradesh and approved by Acharya Nagarjuna University.

School Internship

EM

Signature of the Concerned Teacher

Name:

Signature of the Head of the Institution:

Name:

Seal: PS

This is to certify that Mr./Mrs/Kum.....

Class No:.....Regd.No:.....has completed the required activities regarding to.....practicum towards the fulfillment of B.Ed. Course work stipulated by the Government of Andhra Pradesh and approved by Achraya Nagarjuna University.

This record is assessed.

Lecturer in-charge
SMS&SMCMR College of Education.
GUNTUR.

Subject - Physical Science Name - R. Anusha

Index.

Macro Teaching Lesson Plan - I

Preliminary Information:-

Name of the Student-Teacher :- R. Anusha

Subject :- Physical Science

Class :- VII

Unit :- Motion and Time

Topic :- Motion and Types of Motions.

Time :- 45 min.

Aim :-

Understanding the Content :- Students will be able to understand the concept of Motion and its types etc with few examples.

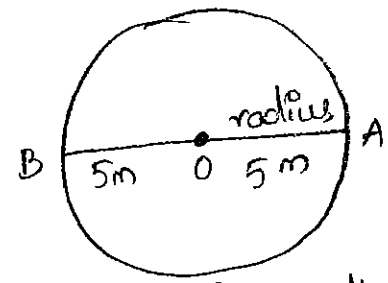
Steps / Content	Teaching & Learning activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts.	Teacher :- Good Morning Students ! How are you all? Students :- Good Morning Ma'm. Teacher :- Children, Imagine you are travelling by a car. If you look outside the window of your car, you will notice that you are in motion in relation of light posts, houses, shops,		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
Concept :- Motion is caused by the unbalanced force acting on an Object at rest.	trees, etc.  * Now, What is this changing of position called? Students :- - - - - Moving of an object. Teacher :- Well, almost up there, what is the term we use there ? Students :- - - - .	*Name of the topic :- Motion	
*Announcement of the topic * Demonstration and Discussion. → Reading	* Children, Today we are going to learn the concept of 'Motion'. Definition :- Motion is caused by the unbalanced force acting on an object at rest.	Definition :- Motion is caused by the unbalanced force acting on an object at rest.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Key Words.	* Here we have few hard Words, now we are going to discuss about them. 1, Translatory Motion. 2, Rectilinear Motion. 3, Curvilinear Motion. 4, Rotatory Motion. 5, Oscillatory or Vibratory Motion 6, Periodic Motion	1, Translatory Motion. 2, Rectilinear Motion. 3, Curvilinear Motion. 4, Rotatory Motion. 5, Oscillatory or Vibratory Motion 6, Periodic Motion.	
* Activities for Understanding the Concept.	1, Translatory Motion :- An object is permanently displaced from its original position. Eg:- A vehicle moving on a straight Road.		* Showing the video of Translatory Motion on smart board with explanation

Steps/Content	Teaching & Learning Activities	B.B.O.	T.L.M.
	* Rotatory Motion:- The motion of hands of a clock, & rotating blades of a windmill or a Ceiling fan.	* Rotatory Motion:- The motion of an object is said to be rotatory if the motion of all particles of the object is along a circular path with respect to an imaginary line called the axis of rotation	* Showing the video of Rotatory Motion on Smart Board with explanation. * Black Board
* Discussion on the topic	* Teacher will be asking students few questions about the topic and can estimate how much students have understood.		

Steps | Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Few Examples (or) Questions	Example 1:- A boy starts from home, goes to a shop, which is 2km away, buys things, & comes back in an hour. What is the distance travelled by him, his displacement from the starting point, & the speed with which he travels?	Solution:- Distance covered by the boy from his home to the shop = 2 km Distance covered while coming back home = 2 km So, the total distance covered by the boy = 2+2 = 4 km Since the final & initial positions are the same, displacement of the boy is 0 km. Speed = Distance travelled / time taken = 4/1 = 4 km/h	*Black Board.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	Example 2:- A girl runs along a circular track of radius 5m starting from point A. What will be the distance travelled by her & speed (a) if she comes back to the initial position in 300s & (b) If she stops halfway at B in 400s?		

Solution:- (a) Since the girl comes back to the original position, her distance would be the circumference of the circle, which is

$2 \times \pi \times r = 2 \times 3.14 \times 5 = 31.4\ m$

Speed = Distance travelled / time taken

$= 31.4 / 300 = 0.0046\ m/s$

(b) If the girl stops halfway through her distance would be half

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		the circumference, which is equal to $(2 \times \pi \times r)/2$ $= 3.14 \times 5 = 15.7$ m Speed = Distance travelled / time taken $= 15.7/400$ $= 0.39$ m/s	
* Conclusion:	Students today we have seen the meaning of motion, typey of motions and few questions were solved with students and also students were asked few questions at the end of the class.		

Macro Teaching Lesson Plan - II

Preliminary Information :-

Name of the Student-Teacher :- R. Anusha

Subject :- Physical Science

Class :- VII

Unit :- Reflection of Light

Topic :- Concave Mirror

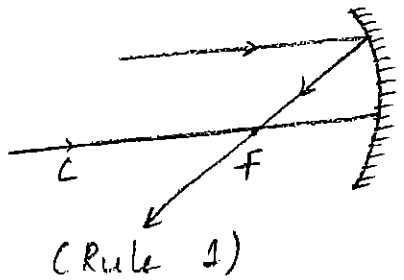
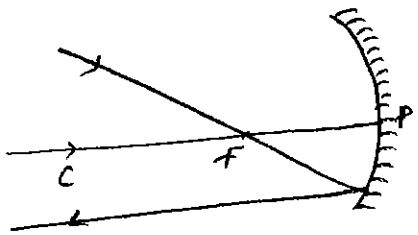
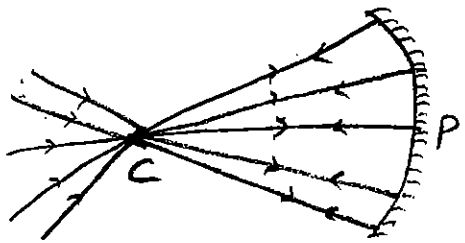
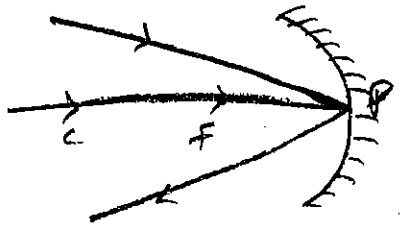
Time :- 45 min

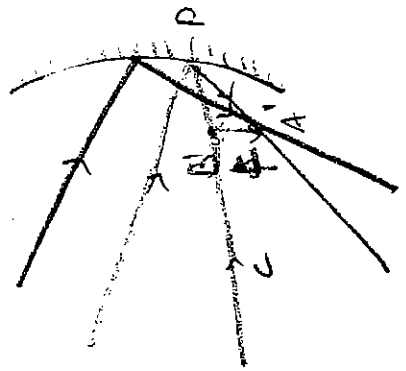
Aim:-

Understanding the Content :- Students will be able to understand the concept of Concave Mirror and the rules of drawing images formed by a Concave mirror.

Steps / Content	Teaching & Learning Activities	B. B. W.	T. L. M.
* Introduction	Teacher:- Good Morning, Students Students:- Good Morning Madam		
* Objectives of Pre- Concepts	Teacher:- What kind of mirrors do you think a dentist would require to examine teeth? Why is this type of mirror used? Students:- ----		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Announcement of the topic	* Today we are going to learn the concept of Concave Mirror	*Name of the topic :- Concave Mirror.	
* Demonstration of the topic → Reading.	Definition :- Rays travelling ||el to the principal axis, after reflection, meet or converge at a point on the principal axis. This point is called the principal focus of a concave mirror.	Definition :- Same ←	
→ Key Words	* Concave * Converging * Reflection * Incident Ray * Parallel axis * Corresponding	* Concave * Converging * Reflection * Incident Ray * Parallel axis * Corresponding	
→ Activities for Understanding the Concept	→ Rules of drawing images formed by a CONCAVE MIRROR. Children, now we are going to discuss		

Steps/Content	Teaching & Learning Activities	B. B. W.	T. L. M.
	few rules to draw the images by a Concave mirror. Rule 1:- A ray of light travelling parallel to the principal axis passes through the principal focus after reflection. Rule 2:- A ray of light passing through the focus travels parallel to the principal axis after reflection. Rule 3:- A ray of light passing through the centre of curvature travels back along its original path after reflection. Rule 4:- A ray of light incident at the pole is reflected at the same angle with the principal axis.	 (Rule 1)   	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic	* Teacher will ask students few question to estimate how much they have understood		
* few Examples (or) Questions.	Ex: When the object is placed far off (or) at infinity, the image will be formed at the focus (F). The nature of the image will be real, inverted, & diminished.		
* Conclusion	*Students today we have seen the meaning & rules and few examples of concave mirror. And were asked few questions at the end of the class.		

Macro Teaching Lesson Plan – 3

Priliminary Information:-

Name of the Student-Teacher – R. Anusha

Subject – Physical Science

Class – VII

Unit – Food Components

Topic – Confirmation of presence of food Components.

Time – 45 min.

Aim:-

Understanding the Content :- Students will be able to understand the concept of Confirmation of presence of food Components.

B.B.W. T.LM.

Steps / Content	Teaching & Learning Activities	
* Introduction * Objectives of Pre-Concepts	Good Morning, Students. Children, * Suppose you don't get food for lunch how do you feel? * Why should we take food? What are the components in it? * What will you do or feel, if you don't get anything for more than a day.	
* Announcement of the topic	* Today, we are going to learn about food components and many more	* Name of the topic :- Food Components & Confirmation of presence of food Components.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Demonstration & Discussion → Reading → Keywords	* Our food consists of Carbohydrates, Proteins, Fats, Vitamins & Minerals. Besides these, water and fibres are also present. * Carbohydrates * fibres * Balanced Diet * Proteins * fats * Constipation	* Carbohydrates * fibres * Balanced Diet * Proteins * fats * Constipation	
* Activities for Understanding the Concept.	* Collect different types of food materials like milk, a potato, little quantity of oil, ghee. Take a sample of each food item in a test tube or a plate and test what are the quantity of fats, fibres, Carbohydrates present.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic * few Examples on Experiments.	* Teacher will be asking few questions to students to estimate how much they have understood.. *Experiment 1:- Test for Starch. *Observe the change in Colour. What do you find? * Experiment 2:- Test for fats.	* Take a sample of food item in the test tube. Add a few drops of dilute Iodine solution to the sample. If the substance turns dark-blue (or black it contains starch.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
		*Take a small quantity of each sample Rub it gently on a piece of paper. If the paper turns trans-slucent the substance contains fats.	
* Conclusion	* Today students, we have seen the confirmation of presence of food components in different food items.		

Macro Teaching Lesson Plan - 4

Priliminary Information :-

Name of the Student Teacher :- R. Anusha

Subject :- Physical Science

Class :- VII

Unit :- Acids & Bases

Topic :- Changing the Colour

Time :- 45 min.

Aim :-

Understanding the Content :- Students will be able to understand the Chang concept of Changing the colour with few experiments.

Steps / Content	Teaching & Learning Activities	B.B.W	T.L.M.
* Introduction * Objectives of Pre- Concept.	Good Morning Students * In our daily life we use a lot of materials. Even our food has a lot of variety Different items also have different taste. In preparing & storing food we take a lot of care.	* Name of the topic = Colour Change.	
* Announcement of the topic	* Today we are going to learn how colour changes in food items.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Demonstration & Discussion. → Reading → Keywords * Activities for Understanding the Concept.	* We can notice that turmeric powder changes colour when soap water or lime water is added to it. * Indicator, Acid, Base, Red litmus, Blue litmus, Acidic Substance, Basic Substance, Neutral Substance, Salts, Neutralization, Acid Rain * Activity 1:- Take some turmeric powder Add a bit of water to it & prepare turmeric paste. Rub the turmeric paste on a white paper. Draw a flower	* Indicator * Acid * Base * Red Litmus * Blue Litmus * Acidic Substance * Basic Substance * Neutral Substance * Salts * Neutralization * Acid Rain.	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	on that paper with a pencil. Colour the flower with soap water using a brush.	* The Colour of the paper changes	
* Discussion on the topic. * Few Examples on Experiments	* Teacher will be asking students few ques. about the topic. Experiment:- Preparation of Lime water.	Take half a beaker full of water. Add about 5gm of lime that we apply to betel leaves. Stir the beaker well & let it stand overnight. filter this solution the following day. Use this filtrate in all experiments you perform	

Steps / Content	Teaching & Learning Activities	B. Bio.	T.L.M.
		This solution should be transparent. The that turn blue litmus to red are acidic in nature. The substances that are soapy to touch & turn red litmus to blue are basic in nature.	
* Conclusion.	* Students, today, we have learned the concept of how acids changes the colours.		

Macro Teaching Lesson Plan-5

Preliminary Information:-

Name of the student-Teacher - R.Anusha

Subject - Physical Science

Class - VII

Unit - Animal fibre

Topic - Animal fibre

Time - 45min

Aim:-

Understanding the Content:- Students will be able to understand the concept of Animal fibre.

Steps / Content	Teaching & Learning Activities	B.B.O.	T.L.M.
* Introduction * Objectives of Pre- Concepts.	* Good Morning Students * What fibres do animals give us? Is the way of obtaining them similar to plants? Which part of animal is useful to make fabrics.		
* Announcement of the topic.	* Today, we are going to discuss about Animal fibre.	*Name of the topic:- Animal fibre	
* Demonstration & Discussion. * Reading	* We get fibre from plants & animals. All caterpillars is made will help to make		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
→ keywords.	dresses which we wear. *Animal fibre * Silkworm * Cocoon * Mulberry * Sericulture * Bombyx mori	* Animal fibre * Silkworm * Cocoon * Mulberry * Sericulture * Bombyx Mori	
* Activities for Understanding the Concept	* Visit near by sericulture Industry to gather more information about Silk.		
* Discussion of the topic	* Discussing about the visit to seri culture industry with students to know who much they have understood.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Conclusion	* Today we have discussed about Silkworms and about Silk and also about animal fibre etc by visiting to nearby sericulture industry.		

Macro Teaching Lesson Plan - 6

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Physical Science

Class - VII

Unit - Motion and Time

Topic - Time & Speed

Time - 45min.

Aim:-

Understanding the Content :- Students will be able to understand the concept of time and Speed.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts * Announcement of the topic * Demonstration & Discussion. → Reading	Good Morning Students * We have learned about Motion, now we are going to learn new topic. * We will discuss about Speed and Time. * We can define speed of an object as the distance travelled by it in a unit of time.	* Name of the topic = Speed & Time	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Key Words	*Motion * Rest * Translatory Motion * Rotatory Motion * Axis of Rotation * Oscillatory Motion * Speed * Average Speed.	* Motion * Rest * Translatory Motion * Rotatory Motion * Axis of Rotation * Oscillatory Motion * Speed * Average Speed.	
* Activities for Understanding the Concept.	*		

Time	Reading of Distance Covered
0 minute	0 km
10 "	15 "
20 "	25 "
30 "	38 "
40 "	60 "

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Discussion on the topic * Few Examples (or) Questions.	* Teacher will be asking students few questions about the topic & can estimate how much students have understood. Example:- The speed of a bus is 72 km/h, whereas the speed of a car is 12.5 m/s. Which vehicles moves faster?	Solution:- Speed of a bus = 72 km/h Speed of a car = 12.5 m/s 1 km/h = 5/18 m/s 1 m/s = 18/5 km/s Thus the speed of car is	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
		$\Rightarrow 12.5 \times 18/5$ km/h $\Rightarrow$ 45 km/h Hence, the bus moves faster than the car.	
* Conclusion.	* Students today we have seen the meaning of Speed and Time & few questions were solved with students in classroom.		

[Motion] Macro Teaching Lesson Plan - 7

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Physical Science

Class - VII

Unit - Temparature and its Measurement

Topic - Heat & Temperature

Time - 45 min.

Aim :-

Understanding the Content :- Students will be able to understand the concept of Temparature & Heat.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction *Objectives of Pre-Concept *Announcement of the topic. *Demonstration & Discussion → Reading. → KeyWords	Good Morning Students * We have learned about different changes that take place in different seasons in the previous classes. Now What do we call such situation? * We are going to discuss about temperature and heat. * Temperature :- Temperature is a measure of the degree of hotness (or) coldness of an object. * Heat Energy * Temperature	*Name of the topic :- Heat & Temperature *Temperature :- It is a measure of the degree of hotness (or) coldness of an object. * Heat Energy * Temperature	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Activities for Understanding the Concept.	* Thermometer * Fahrenheit Scale * Celsius Scale * Clinical thermometer * Expansion * If you stand close to fire, you feel warm. When a warm object is placed close to a cooler object, heat energy moves from the warmer object to the cooler one until both objects attain the same temperature Often we think that heat & temp. are same things, but this is wrong. Temperature is a measure of the heat energy in a body & which indicates the ability	* Thermometer * Fahrenheit Scale * Celsius Scale * Expansion * Clinical Thermometer	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	of a body to give heat to another body (or absorb heat from another body. We use thermometers to measure temperature.		
* Discussion on the topic.	* Teacher will be asking students few questions about the topic & can estimate how much students have understood.		
* Few Experiments (or) Examples.	Experiment 1:- To find the temperature of your palm.	* for this, place the bulb of a thermometer in contact with the palm for 2 mins. & See the Mercury rise. When Mercury	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
		Stops rising & its level becomes steady, note the position of its upper end. This is the temp of your palm.	
	Experiment 2:- Take some water in a beaker. Measure the temperature	* Immerse the thermometer in water beaker and start heating the water. It will start boiling while getting converted into steam. Mercury level starts raising & reaches a point beyond which it doesn't rise. Hence observe the temperature.	
* Conclusion	* Students today we have learned the concept of temperature and heat with few experiments.		

Macro Teaching Lesson Plan- 8

Preliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Physical Science

Class - VII

Unit - Air, Winds & Cyclones

Topic - Air

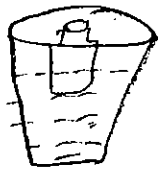
Time - 45 min.

Aim:-

Understanding the Content:- Students will be able to understand the concept of Air with few experiments or examples.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre- Concept.	* Good Morning Students. * When we ride on a bicycle in the direction of the wind, it is easy to ride the bicycle, but when we go opposite to the direction of the wind, it is very hard & we may tire easily.	* Name of the topic :- Air	
* Announcement of the topic * Demonstration & Discussion → Reading	* We are going to learn about Air * The air around us is rarely still. It moves continuously from one direction to another. The movement		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	is in many directions. This is what we call winds. So we know know that wind is moving air.		
* Key words.	* Wind * Expansion * Anemometer * Cyclone * Low pressure * High pressure	* Wind * Expansion * Anemometer * Cyclone * Low Pressure * High Pressure.	
* Activities for Understanding the Concept	* Sometimes the wind is cold & sometimes it is pleasant & nice. It can blow clouds and sometimes raises dust. It is sometimes gentle		

Steps/ Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	but can be really strong too & blow away things.		
* Discussion on the topic	* Teacher will be asked few questions about the topic to estimate how much students have understood.	 	
* Few Experiments or Examples.	* Fill a bucket with water. Take a bottle with a narrow mouth & Immerse it in the bucket till it fills with water.	Fig 1 Fig 2 * Did something come out of the bottle when wat-ter entered it? Solution:- Yes water bubbles with sound. * How do you know whether	

Steps / Content	Teaching & Learning Activities	BIBLIO:	TLM
		Something come out (or) not? Solution:- By seeing the bubbles which comes out.	
* Conclusion	* Today we have learnt about air and also few examples which happen around us.		

Macro Teaching Lesson Plan – 9

Priliminary Information:–

Name of the Student-Teacher – R. Anusha

Subject – Physical Science

Class – VII

Unit – Weather and Climate

Topic – Measurement of Rainfall

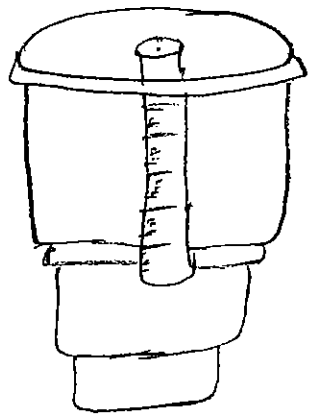
Time – 45 min

Aim:-

Understanding the Content:- Students will be knowing the concept of Weather & Climate and also Measuring Rainfall.

Steps / Content	Teaching & Learning Activities	BIBLIO.	T.L.M.
* Introduction * Objectives of Pre- Concepts. * Announcement of the topic * Demonstration & Discussion → Reading → Keywords	Good Morning Students *Children we have learned about Weather and its conditions. *Today we are going to learn about Measuring of Rainfall and its uses. * Meteorologists measure the rainfall using a 'Rain guage'. * Weather * Fore Cast * Climate * Humidity	*Name of the topic:- Measuring of Rainfall. *Weather *Forecast *Climate *Humidity	—

Steps / Content	Teaching & Learning Activities	B.B.L.O.	T.L.M.
*Activities for Understanding the Concept.	* How can we measure the amount of rainfall at a particular place? Farmers estimate the rainfall based on the wetness of the soil after the rain. They call it as 'PADUNO'. This much of rainfall is sufficient to start agricultural activities like ploughing. This is an app. measure.		
* Discussion on the topic	* Teacher will be asking few questions to estimate how much they have understood.		

Steps/Content	Teaching & Learning Activities	BiBiCo,	T.L.M.
*few Examples (or) Experiments	Exp: Take a 10cm wide beaker & insert a funnel of the same width. keep the apparatus in an open place when it is raining. The rain water would be collected throughe the funnel into the beaker. After the rain is over, measure the amount of water collected in the beaker. If the depth of water is 1cm then that the magnitude of rainfall is 1cm.		
*Conclusion	* Students today we have seen how to measure the rain fall. And also seen one experiment.		

Macro Teaching Lesson Plan - 10

Preliminary Information :-

Name of the Student - Teacher - R. Anusha

Subject - Physical Science

Class - VII

Unit - Temperature and its Measurement

Topic - Heat - A form of Energy.

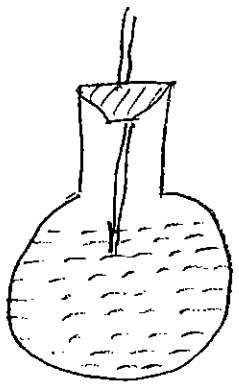
Time - 45 min.

Aim:-

Understanding the Content :- Students will understand the concept of Heat with few experiments or examples.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
*Introduction * Objectives of Pre-Concepts.	Good Morning Students *We feel hot when we sit in sunlight or near fire. We feel cold when we put a piece of ice on our palm. Have you ever thought why it is so?	*Name of the topic - Heat.	
*Announcement of the topic *Demonstration & Discussion →Reading	* Today we are going to discuss about Heat. *Definition:- The energy which makes an object appear hot or cold is called Heat.	*The energy which makes an object appear hot or cold is called Heat.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Keywords	* Heat Energy * Temperature * Thermometer * Fahrenheit Scale * Celsius Scale * Clinical Thermometer * Expansion.	* Heat Energy * Temperature * Thermometer * Fahrenheit Scale * Celsius Scale * Clinical Thermometer * Expansion.	
* Activities for Understanding the Concept	* When rice is being cooked you observe the plate on the rice bowl jumps!	* Have you observed water boiling in a vessel with a lid? What do you notice?	
* Discussion on the topic	* Teacher will ask students few questions to estimate how much did they have understood.		
* Few Examples (or) Experiments	Ex:- Take a flat bottom flask & fill it with coloured water. Fix a cork, having a capillary		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Conclusion	tube, in the mouth of flask such that level of water is as shown in fig. Place the flask in a metal trough. Pour boiling hot water into the through & carefully observe the level of Coloured water. We can observe that mercury will expand while heating. * Students today we have seen the concept of Heat with few examples or experiments.		

Macro Teaching Lesson Plan - II

Priliminary Information:-

Name of the Student-Teacher - R.Anusha

Subject - Physical Science

Class - VI

Unit - Playing with Magnets

Topic - Magnet

Time - 45min.

Aim :-

Understanding the Concent :- Students will be able to understand the concept of Magnet.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts	* Good Morning, Students * You would have seen a pin holder in your school office, in this some pins are attached to the top or cap. What is the material used there?	* Name of the topic :- Magnets.	
* Announcement of the topic	* We are going to discuss about Magnets today.		
* Demonstration & Discussion ⇒ Reading	* Magnets are the materials which can stick or hold iron materials		

Steps / Content	Teaching & Learning Activities	BB.W	T.L.M.
* Keywords	* Magnets * Magnetic Materials * Magnetic Compass * Like poles * Un Like poles * Attraction * Repulsion * Magnetic Induction * Non- Magnetic Materials	* Magnets * Magretic Materials * Magnetic Compass * Like poles * UnLike poles * Attraction * Repulsion * Magnetic Induction * Non-Magnetic Materials	
* Activities for Understanding the Concept.	* Spread some iron filings uniformly on a sheet of paper. Place a bar magnet below the sheet.	* We will observe that the uniformly spread iron filing Concentrate at two points of the paper Sheet. At some distance you will find some scattered	

Steps/Content	Teaching & Learning Activities	B.B.C.W.	T.L.M.
		iron filings blw these two points. This change in the spread of iron filing on the sheet of paper is due to the magnet present below it.	
* Conclusion	* Students today we have learned the concept of Magnets with few activities.		

Macro Teaching Lesson Plan-12

Preliminary Information:-

Name of the Student-Teacher - R. Anusha

Class - VI

Subject - Physical Science

Unit - Playing with Magnets

Topic - Make your own magnet

Time - 45min.

Aim:-

Understanding the content :- Students will be able to make their own magnets after this topic.

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of Pre-Concepts	Good Morning Children. * We have already learned about magnets.		
* Announcement of the topic	* Today we are going to learn how to make our own magnets	* Name of the topic :- Make your own Magnet.	
* Demonstration & Discussion → Reading	* Magnets are the materials which can stick or hold iron materials.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Key Words	* Magnets * Magnetic Materials * Non-Magnetic Materials * Magnetic Compass * Like poles * UnLike poles * Attraction * Repulsion * Magnetic Induction	*Magnets *Magnetic Materials *Non-Magnetic Materials *Magnetic Compass *Like poles *UnLike poles *Attraction *Repulsion *Magnetic Induction	
* Activities for Understanding the Concept	*Take an iron nail & place it on a table. Make sure that the nail neither attraction nor repels iron pins or iron filings. Take bar magnet & place one of its pole near one edge of the nail. Without lifting the bar magnet, move it		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	along the length of the iron nail till you reach the other end. Then lift the bar magnet, bring it to the first end and repeat this process for few minutes. Then the nail will be acting as a magnet.		
* Conclusion	* Students today we have learned how to make magnet by our own.		

Macro Teaching Lesson Plan- 13

Priliminary Information:-

Name of the Student Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Rain: Where Does it Come from

Topic - Forms of Water

Time - 45mins

Aim :-

Understanding the Content :- Students will understand different forms of water.

Steps / Content	Teaching & Learning Activities	B.B.W.	TLM
*Introduction	* Good Morning Children		
*Objectives of Pre-Concept	* Why do we get rains? * Where do the rains come from? * Do all the clouds formed in the sky cause rain?		
*Announcement of the topic	* We are going to learn different forms of water	*Name of the topic :- Different forms of water	
*Demonstration & Discussion * keywords	* Evaporation * Condensation * Water Cycle	* Evaporation * Condensation * Water Cycle	

Steps / Content	Teaching & Learning Activities	B.B.W.	TLM.
	* Cloud * Water Vapour * Atmosphere * Stream * Droplets * Dew * Breeze	* Cloud * Water Vapour * Atmosphere * Stream * Droplets * Dew * Breeze	
* Activities or Examples to understand the Concept.	* Solid form:-	* We call solid form of water Ice. Snow occurs naturally.	
	* Liquid form:-	* If we heat Ice, it will change into water. Water in Liquid form is present in oceans, seas, lakes, river & even underground	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	* Gaseous form	* We know that when ice is heated it converts into water & if water is heated it turns into water vapour. Similarly when water vapour is cooled we get back water If water is cooled further we will get ice.	
* Conclusion	Students we have learned about different forms of water with few examples.		

Macro Teaching Lesson Plan - 14

Preliminary Information :-

Name of the Student-Teacher - R. Arusha

Subject - Physical Science

Class - VI

Unit - Rain : Where Does It Come from

Topic - Water Cycle

Time - 45 min

Aim :-

Understanding the content :- Students will understand the concept of water cycle.

Steps/Content	Teaching & Learning Activities	B.B.W.	TLM
* Introduction * Objectives of Pre-Concept. * Announcement of the topic * Demonstration & Discussion → Keywords	* Good Morning Children * We have already learned about different forms of water * We will discuss about Water Cycle * Evaporation * Condensation * Water Cycle	* Name of the topic :- Water Cycle * Evaporation * Condensation * Water Cycle	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
	*Cloud *Water Vapour * Atmosphere * Stream * Droplets * Dew * Breeze	* Cloud * Water Vapour * Atmosphere * Stream * Droplets * Dew * Breeze	
* Activities (or) Examples for Understanding the Concept	* When it rains ponds, lakes etc are filled with water. Water from rainfall runs down as small streams. These small streams join together & make bigger streams - As it is very hot during summer, large quantity of water		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	evaporates from seass, lakes, rivers etc & converts into water vapour. This goes up into the air to form clouds. These clouds again cool & produce rain. The circulation of water into water vapour by evaporation, is known as Water Cycle.		
* Conclusion	* Students, today we have learned about Water Cycle.		

Macro Teaching Lesson Plan- 15

Preliminary Information :-

Name of the Student - Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Materials & things

Topic - Transparency

Time - 45 min.

Aim :-

Understanding the Content :- Students will be able to understand the concept of Transparency.

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Introduction * Objectives of the Pre-Concepts * Announcement of the topic	* Good Morning, Students * We will learn about different objects which are made up of different materials. * Today we are going to learn about Transparency.	* Name of the topic :- Transparency.	
* Demonstration & Discussion → KeyWords	* Material * Object * Metal * Transparent	* Material * Object * Metal * Transparent	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
	*Opaque * Translucent * Solid * Insoluble	*Opaque *Translucent *Solid *Insoluble	
* Activities (or) Examples for Understanding the concept.	* Are we able to see through a paper.	* Take a sheet of white paper & try to see the lighted bulb through it. Now put a few drops of oil on that sheet & again try to see the bulb through it.	
* Conclusion	* Today we ~~are~~ have go learned about Transparency.	You notice that in the first case	

Steps/Content	Teaching & Learning Activities	BBW.	TLM
		you can't see the bulb but in second case you are able to see the bulb. The materials through which we can see objects, but not very clearly, are said to be <u>translucent</u>.	
* Conclusion	* Students, today we have learned about Transparency with one activity done by you.		

Macro Teaching Lesson Plan - 16

Priliminary Information:-

Name of the Student - Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Materials and Things

Topic - Solubles & Insolubles

Time - 45 min

Aim:-

Understanding the Content:- Students will able to differentiate b/w Solubles and Insolubles

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Introduction	* Good Morning, Students		
* Objectives of the Pre-Concepts	* We have learned about objects made of different materials		
* Announcement of the topic	* Today we are going to learn about Solubles & Insolubles		
* Demonstration & Discussion * keywords	* Material * Object * Metal * Transparent	* Material * Object * Metal * Transparent	

Steps/Content	Teaching & Learning Activities	BIBW.	TLM
	*Opaque * Translucent * Solid * Insoluble * Soluble	* Opaque * Translucent * Solid * Insoluble * Soluble	
* Activities or Examples for Understanding the concept	* Soluble or Insoluble in water.	* Take five beakers with water. Take small quantities of sugar, salf, chalkpowder, sand & saw dust. Add each material to seperate beakers & stir. Observe the changes. When we observe that certain materials dissolve when mixed with water.	

Steps / Content	Teaching & Learning Activities	BLACKBOARD.	TEACHING AIDS.
		When we mix Sugar Salt and Chalk powder are said to be soluble in water as these will dissolve in water. Sand, Sawdust are said to be Insoluble in water as these will not dissolve in water.	
* Conclusion	To day we have learned about Solubles & Insolubles with few examples (or) Activities done		

Macro Teaching Lesson Plan - 17

Preliminary Information:

Name of the Student-Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Seperation of Substances

Topic - Crystallization

Time - 45min

Aim:-

Understanding the Content:- Students will learn about Crystallization.

Steps / Content	Teaching & Learning Activities	B.B.W	T.L.M.
*Introduction * Objectives of Pre- Concepts *Announcement of the topic * Demonstration & Discussion → keywords	Good Morning Students *Do you know how water changes into Crystals. * We are going to learn about Crystallization. *Mixture * Seperation * Handpicking * Winnowing * Sedimentation	*Name of the topic :- Crystallization. *Mixture *Seperation * Handpicking * Winnowing *Sedimentation	

Steps / Content	Teaching & Learning Activities	BIBLIO	TLM
* Activities for Understanding the Concept.	* Decantation * Sieving * Filtration * Crystallization * Distillation * Sublimation * Chromatography * Water is generally evaporated in sunlight, We use this property while extracting salt from sea water. Sea water is captured in wind pans & is exposed to air & sunlight. Then water evaporates &	* Decantation * Sieving * Filtration * Crystallization * Distillation * Sublimation * Chromatography	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
* Experiments or Examples.	the salt is left behind in the pans.	* Heat some salt water in a beaker, over a flame. Stir the sol. with a glass rod. Continue heating till all the water in the beaker has evaporated. You will find salt crystals powder in the dish.	
* Conclusion	* Students, today we have learned about Crystalli-zation with few examples or activities.		

Macro Teaching Lesson Plan – 18

Preliminary Information:-

Name of the Student-Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Simple Electric Circuits

Topic - Simple Electric Circuits

Time - 45 min

Aim:-

Understanding the Content:- Students will understand the concept of Simple Electric Circuits

Steps / Content	Teaching & Learning Activities	B.B.W.A.	T.L.M.
* Introduction * Objectives of Pre-Concept	* Good Morning Children * Niharika took back the torch & opened it & realised her mistake. She changed the position of the cells & handed over the working torch light to her father.	* Name of the topic :- Simple Electric Circuits.	
* Announcement of the topic	* We will discuss about Simple Electric Circuits.		
* Demonstration & Discussion * Keywords	* Electricity * Cell * Bulb * Fused Bulb	* Electricity * Cell * Bulb * Fused Bulb	

Steps/Content	Teaching & Learning Activities	BrBiLo.	T.L.M
	* Terminals * Filament * Switch. * Circuit * Conductor * Insulator * Tungsten	* Terminals * Filament * Switch * Circuit * Conductor * Insulator * Tungsten.	
* Activities or Experiments or Examples for understanding the concept.	* Simple Electric Circuit Electric wires are often covered with plastic. first) remove about 2cms of the plastic covering from both ends of each wire. Now attached two wires to a blub & Two wires to the cell with a cello	* Take four wires of dif. colours, say green blue, red & yellow, each about 15cm long.	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	tape or cell holder. We can use a cell holder to hold the cells & wires together ~~tightly~~.		
* Conclusion	*Today we have learned about simple Electric circuits.		

Macro Teaching Lesson Plans — 19

Preliminary Information :-

Name of the Student - Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Seperation of Substance

Topic - Sublimation

Time - 45 min

Aim :-

Understanding the Content :- Students will learn about Sublimation

Steps / Content	Teaching & Learning Activities	B.B.W	T.L.M
* Introduction * Objectives of Pre-Concepts.	Good Morning Children * Do you know what we call ~~the~~ to seperate the components of a mixture.		
* Announcement of the topic	* We will discuss about Sublimation	* Name of the topic :- Sublima-tion	
* Demonstration & Discussion → Keywords	* Mixture * Seperation * Hand picking * winnowing * Sedimentation	* Mixture * Seperation * Handpicking * Winnowing * Sedimentation	

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
	* Decantation * Sieving * filtration * Crystallization * Distillation * Sublimation * Chromatography	* Decantation * Sieving * Filtration * Crystallization * Distillation * Sublimation * Chromatography	
* Activities (or) Examples for understanding the content.	* In order to seperate the components of a mixture, we make use of their difference in color, shape, size, weight, solubility.		
* Discussion on the topic	* Teacher will be asking few questions to estimate how much they have understand.		

Steps / Content	Teaching & Learning Activities	B.B.W.	T.L.M.
Experiments or Examples.	* Sublimation of Camphor. Take a mixture of camphor & powdered salt in a china dish & cover it with a funnel. Close the tube of the funnel with cotton. Place the dish on a stand & heat it with a burner. * What do you observer	* When camphor is heated, it transforms to gaseous from without changing in liquid. Similarly, on cooling, the gaseous form of camphor changes directly into a solid without going to the liquid state. The process in which a substance changes directly from solid to gaseous form & vice-versa is called Sublimation.	
* Conclusion	* Today, we have learned about Sublimation with few examples & activities.		

Macro Teaching Lesson Plan - 20

Priliminary Information :-

Name of the Student-Teacher - R. Anusha

Subject - Physical Science

Class - VI

Unit - Seperation of Substances.

Topic - Chromatography

Time - 45min.

Aim:-

Pre Understanding the Content:- Students will be able to understand the concept of Chromatography.

Steps / Content	Teaching & Learning Activities	BIBLIO:	T.L.M.
* Introduction * Objectives Of Pre- Concepts * Announcement of the topic * Demonstration & Discussion * Keywords	* Good Morning Students * Can we separate colours from a mixture of colours. * Today, we are going to learn about Chromatography. * Mixture * Separation * Hand picking * Winnowing * Sedimentation	* Name of the topic :- Chromatography. * Mixture * Separation * Hand Picking * Winnowing * Sedimentation	

Steps/Content	Teaching & Learning Activities	B.B.W.	T.L.M
* Activities for understanding the concept.	* Decantation * Sieving * filtration * Crystallization * Distillation * Sublimation * Chromatography * Separation of substances is a very important scientific activity & is also important in our daily life. We are using dif. types of separation techniques for various purposes to get desirable quantities of material.	* Decantation * Sieving * filtration * Crystallization * Distillation * Sublimation * Chromatography	

Steps / Content	Teaching & Learning Activities	BBLO	TLM
Discussion on the topic * few examples	* Today, Teacher will ask few questions regarding the explained topic in classroom * A chalk with different colours * Remove the chalk before the water reaches the top. Now you can see dif. colours on the chalk	*Take a whole stick of white chalk. Around the curved surface of the chalk put an ink mark with blue or black ink. Now pour some water in a plate & keep the piece of chalk in the water. Ensure that the water in the plate is very little & does not touch the ink. ~~Remove the~~	
* Conclusion	* Today we have learned the concept of chromatography with few examples & activities.		