INDEX

Macro Lesson plan-1

I. Preliminary information :-

Name of the Teacher :
Registed NO :
Subject : Biology
Class : ~~7~~ 8th

Name of the observer : G. Sateesh
Name of the school : Z.P.H.S Tarluvada
Date : 05-02-24
Time : 45min

Name of the Topic : cell structure and function
SUB TOPIC : The cell organisms, Show variety of cell in number, Shape & Size
Teaching method : lecture cum Demonstration method, Activity method
Teaching Learning material (TLM) : Showing charts, pictures of organisms having variety of shapes & size in cells.
Reference Book : 8th class Biology Text Book, oxford Dictionary Science Today.

content Analysis :-

1. The cell :- cell is the Basic unit of all living organisms. But they cells are having Diffrent shapes and sizes. And when as structure are unlike- non living Bricks

2. Diffrent types of cells :- Cells which vary in shapes and sizes such as organisms are made of more than one cell are called as multicolor The organisms made up of single cell are called as unicellar.

3. function of cell : * cell is Basic unit of life and also provides structure of Body

Academic standards :

conceptual understanding :- childrens are able to understand the concepts of the cell. children learnt clearly that the cells are Diffrent in shapes and sizes it Depends upon their functioing.

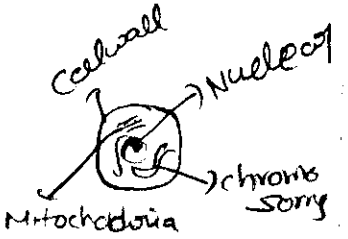
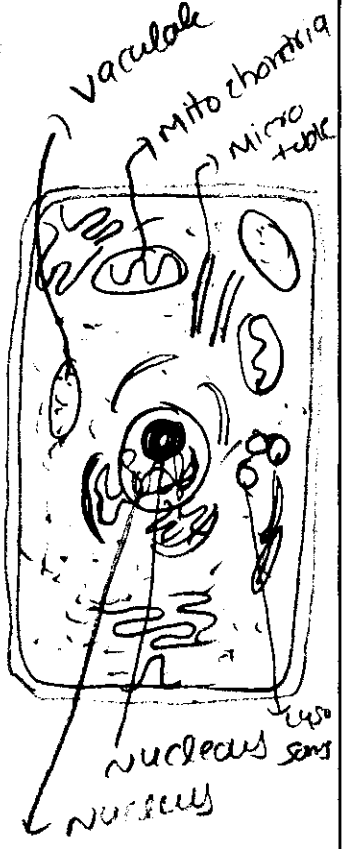
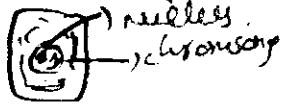
Asking Questions and making Hypothesis :- The childrens ask questions about diffrent types of cells and making hypothesis b/w Diffrent cells.

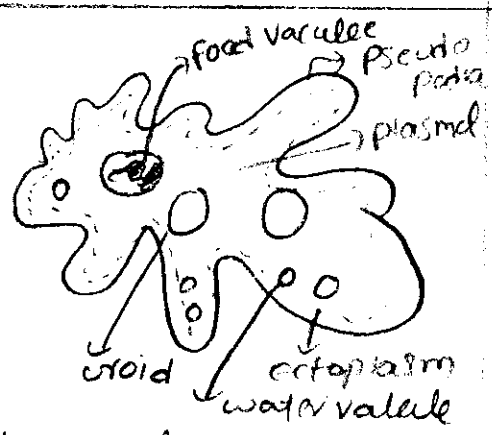
Experimentation and field invisigation :- The children wellde experiment on cells that how they are performing function and also go for the field Investigation for recording.

Information skills and projects :- In this lesson the children are able to collect information of diffrent cells and also having Project work on it

Application to Daily life and concern to Bio diversity :- The children are able to to use the process of diffrent types of cells in using the Daily life of the BioDiversity.

* The children are use the process in daily life. and make the knowledge about the cells.

SL NO.	Teaching steps	Teaching learning strategy	Black-Board work	TLM
I.	Introduction	Good Morning students		
	Wishes	How are you have your break-fast		
	Mind Maping	what is mean by the cell?		
	Questions	(1) Did the cell present in all organisms (2) what is the function of cell?		
	Annoucement of the topic	children today we are going to Discuss about the cell & Diffrent Shapes size of the cells.		
II.	Reading the content	children now see pg-2;4 and under line new words.	**Unicellur oragnism** Orgnismy Made of one cell **Multi cellur:-** Oragnismy Made up of More than one cell Called Multi cellur oragnismy.	
	Difficult words Many	Explain the new words in lesson		
III.	conceptual Understanding	children observe the Diagram. what do you observe from the shown diagram? How many types of cells are there? **function of cells:-** It is th Basic unit of the life. * provide structure for the body * It helps reproduction	 **unicellur:-** oragnism Made up of one cells. Call unicellure oragnisms.	Showing the cell on the chart with Samples.

Sl No.	Teaching steps	Teaching learning strategy	Black Boardwork	TLM.
	Activity	**Activity:** Take a pond water into a bottle. put one drop of water on the side with dropper cover the drop on the slide with cover slip.		Showing the Ameba structure
	observation	**observation:-** Some oragnisms are moving around it		
	Demonstration	**Demonstration:-** Take pond water into a bottle But one drop of water one side with dropper cover with cover slip	Ameba has no Definite Shape ; unlike other oragnisms	shown the structure funchong on the chart
		observation:- Some oorganisms moving arround it	single cell oragnisms ambea captures and digist food, respirates, excretes gas etc.. Multicellur oorganisms carried out the group specilize of cells forming cell tissues.	
	Discussion	**Discussion:-** This is the cell and in varient shapes and sizes.	Ex:- Ameba paramisum -	
	conclusion & evalution	where ay ameba present in the water.		
	Assignment	1. what are the functions of cells? 2. give the examples of diffrent Types of cells?		

Macro lesson plan-2

Preliminary information:-

Name of the student teacher:

Register No:

subject : Biology

Name of the TOPIC : parts of the cell

Name of the SUBTOPIC: cellwall, Nucleus cellmembrane, cytoplasm, vocuoli, plastids

Name of the observer : G. sateesh

Name of the school : Z.P.H.S Tarlavada

Date : 08-02-2024

Time : 45 min

class : 7th

Teaching Method : Lecture cum Demonstration method, Activity method

Teaching Learning Material: charts, Modals, pictures

Reference Books : 8th class Biological science Books, Dictonary

Content Analysis:

Parts of the cell : In every oragnisms cells are present shapes are Diffrent depends upon their function

Academic standards:

conceptual understanding: children are able to understand the concept of diffrent parts of a cells

Asking Questions and Making Hypothesis: children ask Questions about parts of the cells and Making the Hypothesis.

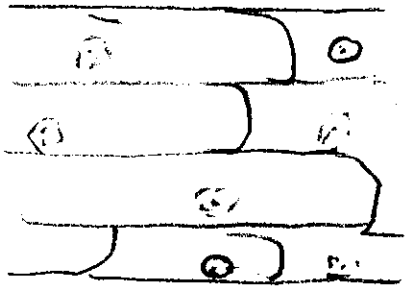
Experimination & field investigation: The children do experiment on cells are takes place in plants and go for field investigation Recording.

Information skill & projects:- children due to collect information on the parts of the cells and performing project.

Appraciation and Aesthetic sense & values: children able to appreciate the different parts of the cell and feel the Aesthtic sense of parts of cells.

Application to Daily life and concern to the Biodiversity:- children able to use the Process of Parts of the cells in using Daily life of Biodiversity.

SL. NO.	Teaching steps	Teaching & learning strategy	Blackboard work	TLM
I	Wishing	Good mooming children How are you		
	Mind maping Questions	what are the parts of a cell ? ① Did the cell present in all oraganisms? ② How many cells are present in human body?	cell wall, cell, cyto plasm, cell membrane, nucleus	
	Annoucement of TOPIC	children lets Discuss about parts of the cell		
II.	Reading the content	children open & Read Pg 8; 10; 12: 14 Pages and under line hard words		

	Difficult words Meaning	Explain the new words in the lesson	Nucleus:- The central dense round body present in centre are called Nucles.
III.	Conceptual understanding	children read part of the cells from pg NO. 8,10,12;14 and observe the cell diagram	
	Activity	Activity:- Take an onion Bulb Remove the dry pink coverings with the help of forceps cut the thin layers into small piece with blade place the small piece thin onion Beldrop of water on a glass slide add drop of Methylu blue solution to the layer, & coverslip to it. The boundry of onion cell called cell Membrane. A dense round body in the centre is called as nucleus.	 Show the diagram to the students
	Demonstration	Take onion Bulb remove the Peel with forceps cut thin layers add drop of H_2O on slide & Methyl. blue solution to layers & cover slip	Every human being various parts in Body such as the cell is also having the parts

	observation:- The jelly like substance between the nucleus & the cell membrane is called as cytoplasm	cellwall, Nucleus cytoplasm, Ribosom etc.
Discussion	what are the parts are present in cell? what do you observe from the Activity?	we observe that various parts of Perform various ferction ing in the cell.
conclusion & evaluation	various parts perform various kinds functions in the cell and it gives structure to body.	
Evaution	what is function s of the cell? what is Nucleus	
Assignment	children write the cell activity in the Activity Book! write 1.1 and 1.3 activity in note book also.	

Micro lesson plan - 3

Preliminary information:

Name of the student Teacher:

Reg No:

Name of the observer: G. Sateesh

Name of the school: Z.P.H.S Toalewada

Date: 05-02-2024

Time: 4 Smin

Subject: Biological science

Class : 8th

Name of the TOPIC : cell structure and function

SubTOPIC : comparision between plant cell & Animal cell

Teaching method: Lecture cum Demonstration method ; Activity method

Teaching learning material (TLM): Showing charts & pictures

Reference Books: Biological science and Dictionary

Content Analysis:

comparsion of a plant & animal cell :- A cell wall present in the plant cell.
Absent in Animal cell.
Vacules are large & single in plant cell.
these are small in animal cell.

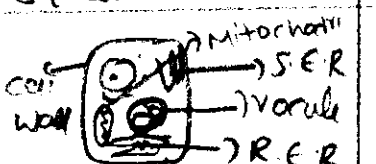
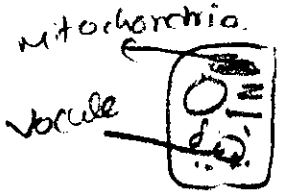
Asking questions and making Hypothesis :- The children ask about the comparison between the plant cell and animal cell

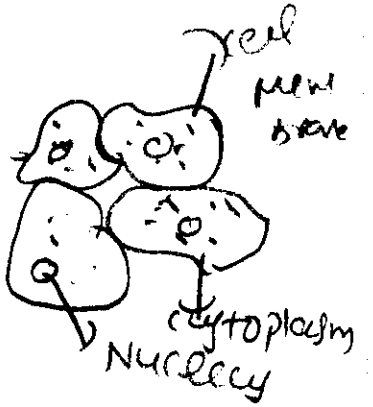
Experimentation and field investigation: children will do experiment on the comparision b/w plant & Animal cell go for field investigation Report.

Information skills of project: children collect information on comparison of plant and animal cell on the project work purpose.

Appreciation and Aesthtic sense of values: The children appreciate the comparsion of the plant and animal cell & feel the Aesthtic Sense in Plants

Application to Daily life and concern to Biodiveosity:- The children use this process in their Daily life of the Biodiveosity.

Sl No.	Teaching steps	Teaching learning strategy	Black Board work	TLM
I.	Introduction Wishing	Good morning students how are you		
	Mindmaping	How many types of cells are there		Show on the Chart
	Prelliving questions	what is the Diffrence b/w the Animal and plant cell?		
	Announcement of the TOPIC	children we will Discuss about Difference b/w Plant and animal cell.		

II.	Reading the content	children read Activity-4 Pg.No-14 underline New words	cell wall is not present in animal cell	Show on the Chart
	Difficult words	explanning new words in the lesson.	*cell wall is present in the plant cell which protect the plant	
III	conceptual understanding	children observe the diagram carefully.		
	Observation	Activity:- Take a clean tooth pic. Scrape inside of your cheek without hurting it & then place on glass slide add a drop of iodine & place cover slip to it The Boundry of cheek cell is called cell membrane No cell wall is seen.		Show the Diagram.
	Demonstration:-	Take a clean toothpick scrape inside of your without hurting and add iodine place it on glass slide and then place coverslip to it		

observation The jelly like substance present b/w the nucleus & cell membrane called cytoplasm. No cell wall is seen.

V. conclusion:- Plant cells have cell wall in addition to cell membrane Animal cell have only cell membrane. plant use cell wall to provide structure to plant. Animals cells don't ~~plant~~

Showing Diagram on chart.

Evaluation why do plant cells need cell walls? Do Bacterial have cell wall? what is cell wall?

Assignment:- write the difference between the plant cell and animal cell?

Macro lesson plan-4

Preliminary information:-

Name of the student Teacher:

Register NO:

Name of the observer: G. sateesh

Name of the school: Z.P.H.S. Taalwada

Subject : Biological science.

Date : 08-02-24

Class : 8th

Time : 45min

Name of the TOPIC : Biological science (Micro organisms)

SUB TOPIC : Micro organisms friend and foe

Teaching method : Lecture cum Demostration method ; Activity method

Teaching learning Material : showing on charts ; pictures

Reference Books : Biology Book & Dictonary.

Content Analysis :

Micro- organisms : Tiny organisms that can be seen only through Microscope

Academic standards:-

conceptual understanding:- children can understand the lesson

Asking questions and making Hypothesis:- The children ask questions about the micro organisms and making Hypothesis.

Experimentation and field investigation:- The children will do experiment and field investigation Accordingly.

Information Skill & Projects :- The children collect the information on the Micro-organisms.

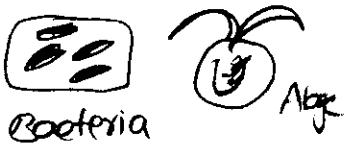
Appreciation and Aesthtic Sense and values :- The children are able to to appreciate the micro-organisms and feel the Aesthtic sense of Nature

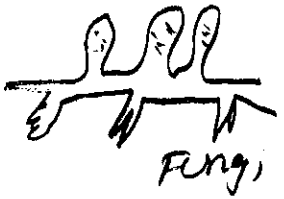
Application of Daily life and concern Biodiversity :- The Children use this Process in their daily life of Biodiversity.

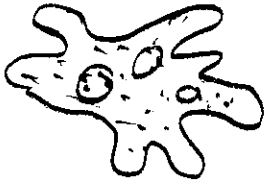
S.L NO.	Teaching steps	Teaching learning strategy	Black Board work	TLM
I.	Introduction wishing mind mapping providing questions Annocement of Topic	Good morning students How are you what are micro-organisms Tell the micro-organisms Daily life children Let's Discussion about organisms.	Micro-organisms are classified into 4 groups bacteria Protozoa ; fungi And Alage. Bacteria is single called oragenisms	Shawon the charts
II	Reading the content Difficult words Meaning.	Read page No. 22; 24 and under line New words.	fungi are plant like micro-oragnism lack chrophyl	
III	Conceptual understanding	children observe Diagram in PG NO 24.	are unicellur oragnism	

Activity:- collect some mash soil from field in Beaker ~~Add~~ H_2O the soil. particles are setted down spread a drop of H_2O on slide observe under the Microscope

Observation It is observe that some tiny oraganisms are moving around.







Demonstration Activity:- Take a few drops of water from a pond in test tube spread a drop of H_2O. on slide & observe under the microscope.

Observation:- It is observed that some tiny oraganisms are moving around on the slide

Discussion

can micro-oraganisms are been with naked eyes — Yes, Shown on the chart

what are the examples for Bacteria? — lactobacilles Rhizopora.

conclusion:

micro-oraganisms can't see with our naked eyes. It is multi celler & unicelluar It may be found H_2O, Air, plants and animals. — Shown the pictures

Evaluation

It bacteria is present in Human Body? Tell some harmful and Harmless micro oraganisms

Assignment

write 10 line about the Harmless, micro-oraganisms and their use

Macro lesson plan- 5

Preliminary information:

Name of the student Teacher:

Name of the observer: G. sateesh

Register NO:

Name of the school: Z.P.H.S. Talewada

Subject : Biological science

Date : 09-02-24

Class : 8th

Time: 45min

Name of the Topic : Micro-oragnisms

SUB Topic : Micro-oragnisms and friendly micro-oraganisms ; Making of curd

Teaching method : Lecture cum Demonstration method.

Teaching learning Material: Showing on charts

Reference Books : Biological science book, Dictionary.

content Analysis:-

* friendly Micro-oraganisms
* Fermantation
* Harmful and harmless Micro-oraganisms.

Academic standards:-

conceptual understanding: children able to understand the content

Asking questions making hypothesis:- children are asking questions about the Micro-oraganisms.

Experimentation and field investigation :- The children are doing project on the micro-organisms.

Appreciation & Aesthtic sense values :- The children Appropriate the micro-organisms and also feel the Aesthtic in sense of micro-organism in Nature

Application to Daily life and concern to Biodiversity :- The children are using this process in their Daily life at micro-organisms Biodiversity.

Sl No.	Teaching steps	Teaching learning stragey	Black Board work	TLM.
I.	Introduction Wishing mind Mapping Providing questions	Good morning students How are you? Is micro-organisms are single calle organisms? what is meant by fermentation what are the harmful & harmless Micro-organism?	Bacteria, Fungi Protozoa, Algae Bacteria :- They are single called organisms.	Shown the chart
	Annoucement of the Topic	children let's discuss about the Micro-organisms.	Fungi :- some are unicellular & multicellular.	
II.	Reading the content Difficult in words Meaning	friendly Micro-organisms : They used in preparation of curd, Bread, cake.	Algae :- organism contain chlorophyll produce the food.	

Fermentation:- The process of convert of sugar into alchal ore called formentation.

Harmful micro-oraganisms:-

It caused humen being; plants animals.

III conceptual understanding

children read pg: NO:26 observe the diagram carefully.

Activity:- Take 1/2 kg flour add sugar & mix with warm water & add small amount of yeast powder knead a soft Dough & observe after 2 hours.

observation

The Dough begins to rise up the volume.

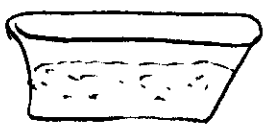
V Demonstration:-

Take 1/2 kg flour add sugar mix water add yeast powder knead a soft dough Observe 2 hours

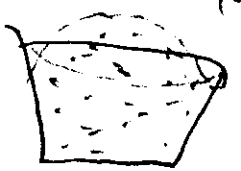
observation

Yeast Performs fermentation with flour & Sugar Despiration occur

Yeast :- A micro scopic fongy consist single oval cell that Prctice budding convert sugar in Alchal CO_2



Maida with Yeast



Raised maida

Discussion	fermentation release CO_2 inform of Bubbles. The Bubbles fill Dough. students the bacteria convert into curd its called Lacto Bacilus.		Show on the chart diagramatically.
Conclusion:-	are used in cleaning up the environment organic vessels. Bacteria are used in the medicine pre-poration.	Yes:- Ex:- onion peels.	
Evaluation	what are the friendly micro oraganisms what is Lactobacills.		Show the Pictures of the micro-oraganisms.
Assignment	what is the fermitation? Yeast process and? write some example for Bacteria? virues?		

Macro lesson plan - 6

Preliminary information :-

Name of the student Teacher:

Reg NO:

Subject: Biology

class : 8th

Name of the Topic ; micro-oraganisms

SUB TOPIC : micro oraganism friendly

Teaching method:

Teaching learning material

Reference Books

Name of the observer: K. Durga

Name of the school: Z.P.H.S Talwada

Date : 08-02-24

Time : 45min

Content Analysis:- * what is Antibiotics?

* Discuss about the friendly microoragnisms.

Acadamic standards:-

conceptual understanding:- children able to understand the concept of topic friendly micro-oraganisms, using for the medical purpose.

Asking questions and making Hypothesis:- children asking questions about the commercial use of micro-oraganisms Making the Hypothesis

Experimentation and field investigation:- children do experiment on the micro-oraganisms & go for field investigation recording.

Information skills and projects:- children do experiment on uses micro oragnisms & perform project.

Appreciation and Aesthtic Sense values:- children appreciate the uses of micro-oraganisms and feel the Aesthtic sense of micro oraganisms in nature

Application to Daily life & concern to Biodervesity:- children use this process in their Daily life in the Biodervsity.

Sl No	Teaching steps	Learning teaching startegy	Black Board Work	TLM.
I.	Introduction Wishing Mind mapping Providing questions	Good morning students ~~How~~ are you? where does yeast grown on natural ways? ① what is anti biotics ② How antibiotics are Produced? ③ what is Penicillin?	Streptomycin Tetracycline erythromycin	Bhavan Chart
	Annoucement of the TOPIC	Discuss about Micro-oragonisms		

II	Reading the content Difficult words meanings	children read pg No 28, 30 underline the new words. commercial use:- yeast is the commercial production of the alchal & wine Antibiotics :- The medicine kill or stop the growth of the Disease causing microoraganisms called antibiotics. Discovery of pencillin:- Alexander flemingo way Discovered the pencillin	yeast:- yeast is used for commercial produce tion of wine the Alexender flamingo (1929) was worked culture of the Disease causing Bacteria.
III	conceptual understanding	Observe the Diagram carefully Activity:- Take 3/4 water Dissalve 2-3 teaspoons of sugar. Add half spoon of yeast powder. to sugar solution keep covered in warm place for 4-5 hours New smell solution	Stretomycin, tetracycline, Erythromycin are commonly known as antibiotics.

Observation — yes; we get strong & pungent smell; comes from sugar solution due to fermentation by yeast

IV Demonstration — Activity:- Take 500ml beaker filled upto 3/4 with H_2O and Dissolve 2-3 tea spoon of sugar. Add half spoon of yeast powder to sugar and cover warm place for 4-5 hrs.

Show the pictures on the chart?

observation — yes we get strong pungent smell come from sugar solution. due to fermenating yeast powder.

V Conclusion:- Types of protein that help the body to fight with disease called anti biotics. These are against bacteria called anti biotics.

Show the Activity on the chart?

Evaluation — what is Antibiotics?
Is yeast is commercial Product?

Assignment — write the commercial uses of yeast?
give examples of fermantion?

Macro lesson plan-1

Preliminary information :-

Name of the student Teacher

Reg NO. :

Subject : Biology

Class : ~~8th~~ 7th

Name of the obsesiver: K. Durga

Name of the school: Z.P.H.S Tarluada

Date : 13-02-24

Time : 45min

Name of the TOPIC : micro oraganism friend & foe

Sub TOPIC : increasing soil fertility ; cleaning environment

Teaching method : Lecture cum Demonstration method.

Teaching learning material : Showing charts & pictures.

Reference Books : Biological science Books, Dictionary.

Content Analysis :- what is Soil fertility?

what is nitrogen fixers?

~~Academic~~ Standards :-

Conceptual understanding :- children understand the concept of the Soil fertility and cleaning environment

~~Asking~~ questions and making hypothesis :- children asked questions about the soil fertility and making hypothesis.

Macro lesson plan-1

Experimentation and field investigation:- children do experiment on the plant waste and do field investigation for Recording.

Information skill & projects:- children collect information on soil fertility and cleaning environment and perform project on it.

Appreciation & Aesthtic sense and value:- The children approach the environment changes and improvement they feel Aesthtic sense in the nature

Application to Daily life & concern Biodiversity:- children use this process in their Daily life in Biodiversity.

Sl. No.	Teaching steps	Teaching learning startgy	Blackboard work	TLM.
I.	Introduction Wishing Mindmapping providing Questions Annoucement of the TOPIC	Good morning students How are you How the soil fertility increase who observed moisture in the vegtable's waste? children lets Discuss about soil fertility & environment?	Increasing the soil Fertility Eg:- Blue, green algae, for Nitrogenfixator.	Show on the charts
II	Reading the content	children Read Pg. 30, 32 and underline the hard words.		

	Difficult words Meaning	Biological Nitrogen fixers Gardner making manure Disposal.	soil fertility:- Some Microbes fix nitrogen from atmosphere to enrich soil with the Nitrogen & increas known as soil fertility	
II.	conceptual understanding	observe the diagram in the pg No. 32.		
		Activity:- Take two pots & fill half with soil & make A & B fill plant waste in pot A. put polythene bags empty glass bottles broken plastic toys in pot. Observe the pot after 3-4 hrs.		show the pictures
	observation	The Plant waste in pot 'A' is decomposed & Pot 'B' didn't get any changes the microbs action on plant waste. Decomposed & converts into manure.	the Rhizobaium is the best example of the Nitrogen fixers.	
IV	Demonstration	Take two pots :- fill half with soil & makes A; B put plant waste in pot A. BUT polythen Bag		

plastic toys in pot B and observe for 3-4 hrs.

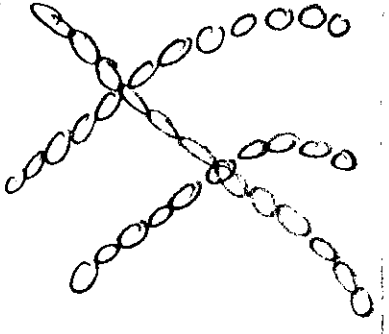
observation plant wasted pot 'A' was decomposed pot 'B' did not have any changes It is observed microbes ~~deton~~ on it decomposed convert it the manure.

conclusion Some micro-oraganisms are useful for decompose the oraganic waste dead plants & animals into substances clean up the environment

evaluation Is vegtables scrapes are useful in our Daily life?
What is the example for biological Nitrogen fixers?

Assignment (1.) children Prepare notes on the both topic given above?

the vegtable waste are useful & also decomposed and convert to mansure practicaly it was proven.



cyanobacteria
(Bluegreen Algae)

shown on the charts.

Macro lesson plan-8

Preliminary information :-

Name of the student-teacher:

Reg NO :

Subject : Biology

class : 8th

Name of the observer : K. Durga.

Name of the school : Z.P.H.S Tallwada

Date : 19-02-24

Time : 45

Name of the TOPIC : Microoraganisms friend & foe

Name of SUBTOPIC : Harmful micro-oraganism

Teaching method : Lecture cum Demonstration Method

Teaching learning Material (TLM) : showing on charts

Reference Books : Biological science book ; Dictonary

Content Analaysis :- what are Pathogens?

What are communicable Diseases?

Acadamic standards :

Conceptual understanding :- children able tounderstand about the harm ful micro oraganism and causing diseases in humans.

Asking Questions & Making Hypothesis :- children ask questions about dieases caused in human beings?

Expermentation and field investigation : children do investigation on the Human Diseases.

Information skills and project :- children collect the information microoragamisms disease and in the Human. Perform project.

Appeseiation & Aesthtic sense & valve :- children apperciate the Dieak caused Human and feel the Aesthtic sense in Nature.

Application to Daily life and concern to Biodiversity :- This proces is used Diseases in humans Daily life use in Biodiversity.

SL NO.	Teaching steps	Teaching learning startgy	Black Board work	TLM.
	Introduction wishing mindmapping Providing Questions	Good morning students How are you what are Pathogens what are the examples of communicable disease ?	Air, water, food are Physical contact caled communicable Diseases.	Show on chart
	Announcement of the topic.	let's Discuss about Disease caused by micro-oraganisms in human beings !		

	Reading the content Difficult words meaning	children Read pg NO34; 36 and underline the words. Explanning words in the lesson.	pathogens:- some micro-oraganisms causes dieases in humans, plants animals; is called pathogens.
II.	conceptual understanding	children read the page NO 34,36 and observe the table form carefully.	communicable dieases:- Diseases that can spread from injected person to a healthy person through air water, food, called communicable dieases

V. Demonstration

some common human Diseases caused By micro-oraganisms.

Human Diease	causative microoragnism	Mode of Transmission	Preventive measure (General)
Tuberculosis	Bacteria	Air	keep the patient complete isolation
measles	virus	Air	keep the personal belongings of patient away from those other
chickenpox	virus	Air/contact	vaccination.
polio	virus	Air water	to give a suitable age
Chalera	Bacteria	water/food	Maintain person hygiene
Typhoid	Bacteria	water.	and good sanitery habits.

	Hepatitis	Virus	water	Drink Boiled Drinking water Vaccination.
	Malaria	Protozoa	mosqueto	use mosequetonet & repells spray insects control breeding of mosquito by allowing water to collect to surroundings

SL No.	Teaching steps	Teaching learning strategy	Black Board Work	TLM
	Discussion	what are the examples for communicable Disease.	Ex:- cholera, common cold, Chicken pox tuberculosis.	
V	conclusion	The female Anopheles mosqueto which carries the parasite of Malaria. Aedes formals mosquito as carrier of Dengue virues.		Show on charts.
	Evalution	How to Prevent the Spread of communicable Diseases	wash hands before having meals. cover nose while sneezing.	
	Assignment	children write the Human Diseases Table form in the Notebook.		

Macro lesson plan-9

Preliminary information:-

Name of the student Teacher:-

Register NO:

Subject : Biological science

Class : 8th

Name of the observer: K. Durga

Name of the school: Z.P.H.S Tarlwada

Date: 15-02-24

Time: 45min

Name of the TOPIC: Micro oraganisms friend & foe

Name of the SUBTOPIC: Diease caused by plants & Animals

Teaching Method: Lecture cum Demonstration method

Teaching learning material (TLM): showing on charts

Reference Books: Biological Books, Dictionary

Content analysis:- 1. who discovered Anthrax Disease

2. waite two examples for plants causing Disease by micro oraganisms.

Academic standards:-

Conceptual understanding:- children able to ask questions on the Disease caused by plants and animals.

Asking questions and Making Hypothesis:- children asked questions on the

Diseases caused by Plants Animals and making Hypothesis

Experimentation and field investigation:- children do experiment & field investigation on Diseases caused by plants and animals

Information skills and Projects: children do perform the project on the Disease caused by plants & Animals

Appreciation and Aesthetic sense and values:- children appreciate the Aesthis sense and and also feel the values.

Application to daily life & concern to Biodiversity:- we use the method in ourdaily life in Biodiversity of nature around this.

Sl No	Teaching steps	Teaching learning Strategy	Black Board Work	TLM.
I	Introduction wishing mind mapping providing Questions Annocement of the Topic	Good morning students? How are you which mosquito carries and acts caused viruses? which mosquito carries para site of a malaria? children today we will discuss about Diseases caused by plants and animals	Rebert koch (1876) Discovered the Bateria which causes Anthrax disease	Show on chart
II	Providing Content	children read pg NO. 36 ; 38		

	Difficult words meaning	Underline the words in the lesson Explaning meanings in the lesson	Anthrax is Dangerous human & cattle diease caused by Baeterium
II.	Conceptual understanding	children observe the table form page no 38 clearly.	

Demonstration

Table 2.2: Some common Dieases caused by microorganisms

	Plant Disease	micro-organism	Mode of Transmission
	citrus canker	Baeteria.	Air
	Rust of wheat	fungi	Air, seeds
	Yellow vein Mosaic of Bhindi (Okara)	virus	Insect

SC No.	Teaching steps	Teaching learning Strategy	Black Board Work	TLM.
	Discussion	citrus canker Disease was caused Bacteria micro-oraga nisms.	Rust of wheat ↓ fungi ↓ Air ; seeds	
I	conclusion:-	The Rust of wheat was Disease caused fungi micro-oraganism		
	Evaluation	which disease is caused by cattle? Name the mode of transmiss ion in yellow vein mosaic of bhindi		Showed on the chart
	Assignment	children Read and write Table form in the Note book? Disease caused by plants		

Macro lesson plan-10

I. Preliminary Information :-

Name of the student Teacher :-

Name of the observer: K. Durga

Register NO:

Name of the school: Z.P. H.S Talwada

Subject : Biological science

Date : 16-02-24

Class : 7th

Time : 45min

Name of the TOPIC : Micro oraganism friend & foe

Name of the sub TOPIC : Nitrogen fixation and Nitrogen cycle

Teaching method : Lecture cum Demonstration method

Teaching learning material : showing charts.

Reference Book : Biological science, Dictonary

content Analysize :- what is nitrogen fixation?
which Bacteria is present in nitrogen fixed?
which oraganism lives in root Nodules?

Academic standards :-

conceptual understanding :- children able to understand the concept of nitrogen fixation cycle.

Asking questions and making Hypothesis:- children are asking about nitrogen fixation and cycle and also making Hypothesis.

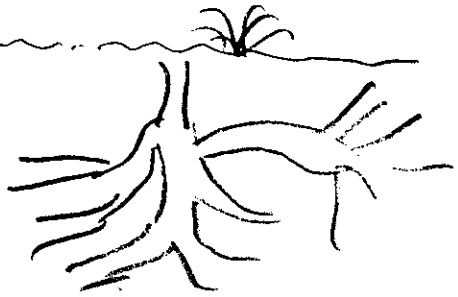
Experimination and field Investigation:- The children are doing the experiment on nitrogen fixation and nitrogen field Investigation Recently.

Information Skills and Project:- children collect the information about fixation and Performed Project on it

Appreciation Aesthetic Sense of values:- children Appreciate the Nitrogen fixation and Aesthetic Sense and feel the values.

Application to Daily life and concern to Biodiversity:- children use this Process in their Daily life of Biodiversity in nature.

Sl No.	Teaching steps	Teaching learning startgy	Black Board Teaching	TLM.
1.	Introduction crushing Mind mapping providing questions Annoucement of the TOPIC	Good morning student How are you What is Rhizobium? which live s in root nodules of deguminous plants? children tells discuss about nitrogen cycle & fixation	**Nitrogen fixation** Bacteria convert compounds of nitrogen present in soil into nitrogen gas is released to the atmos	Shavon the chart
2.	Reading content	children Read pg NO. 40,42		

	Difficult words meanings	explaning the words in the lesson	Anabaena and Nostoc are two blue green algae helps in Nitrogen fixation
III.	conceptual understanding	children read page 110.40, 42 observe the Nitrogen cycle clearly	

IV Demonstration (Activity)

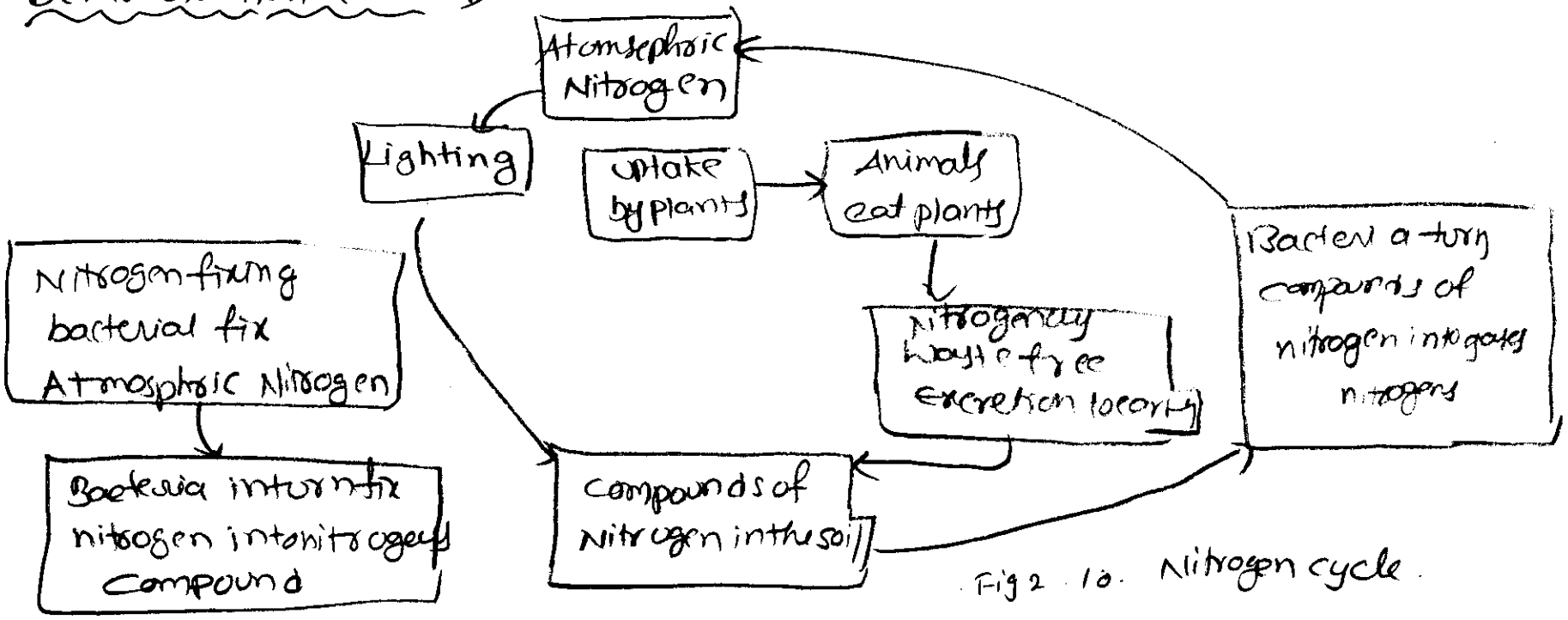


Fig 2.10. Nitrogen cycle

Discussion	Leguminous plants are the Beans and peas are having symbalic relation and also sometimes nitrogen fixed through of lightning		
conclusion	our atmosphere is filled with 78% of Nitrogen gas BLUE and green algae is present in soil nitrogen fixation.		
Evaluation	How nitrogen is used? How nitrogen waste is been converts into?	Nitrogen is used for the synthesis of plant proteins and compounds. when plants & Animals die bacteria, fungi present in soil and convert into Nitrogen waste.	Shown the charts.
Assignment	children waste Nitrogen fixation process Nitrogen cycle in the Note book.		

Macro lesson plan-II

Preliminary information:

Name of the Student Teacher:

Reg No:

Subject: Biological science

Class: 7th

Name of the observer: K. Durga.

Name of the school: Z.P.H.S Talewada

Date: 17-02-24

Time: 45min

Name of the TOPIC: Crop mangement & production

Name of the SUBTOPIC: selection of seeds, Traditional Tool; Drilling Tool

Teaching method: Lecture cum Demostration method,

Teaching learning material (TLM): Showing on charts

Reference Books: Biological science Dictonary

Content Analysis: what is Showing?
what is traditional tool?
what is dailling tool?

Academic standards

Conceptual understanding:- children can abe to understand the content of sowing; Traditional; Drilling tool process.

Asking questions Making Hypothesis:- Children asking about these topic and Making Hypothesis.

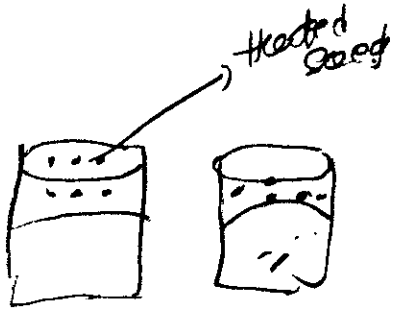
Expesimantation and field Investigation:- children doing field investigation and experimantion according in nature.

Information Skills and projects:- students collect information and also perform skills project on it

Appreciation and Aesthtic sense and values:- children appreciated the Aesthtic feel and sense value are feel accordingly.

Application to Daily life concern to Biodiversity:- children use this praces in their Daily life and concern in Biodiversity.

S.No.	Teaching steps	Teaching learning strategy	Black Board Teading	TLM.
I.	Introduction wishing mind mapping providing questions. Annaucement of the topic	Good mooning students How are you -Are the seeds fleat on wateer what is traditional food praces explain it children let's Discuss about variay types of Toding and seleetion of seeds.	Selecting seeds Technalogy drill seed drill.	

	Difficult words meanings	Explaining the meaning in the lesson	Seed Drill:- A Device used for sowing seeds in ground with the help of the tractor	
III-	conceptual Understanding	children read pg 58 : 60 and observe the pictures. Activity :- Take a Beaker & fill the half of it with water put a handful of wheat seed and stir well wait for some time.		Show the Pictures
	observation	Some seeds are floating on water The seeds which float on H_2O are lighter than those sink for the bottom of the Beaker. Damaged seeds become hallow they are lighter.		
IV	Demonstration	Activity:- Take a beaker and fill the half of it with H_2O put a handful of wheat seed and stir well . wait for some time.		

Observation	Sometimes some seeds are floating on water. The seeds float on H_2O are lighter than those sink for the bottom of the Beaker. Damaged seeds become hollow, so they are lighter.		
Discussion	Traditional tool used for sowing seeds is shaped like, a funnel. The funnel passed through into 2 (or) 3 Pipes ends.		Show the Pictures on the Chart
Conclusion	The seed drill process may also protects Seeds from eaten by birds. Sowing by using a seed drill Saves time and labar.		
Evaluation:-	Is this two method are useful in Agricultural field?	Yes, These are so useful in Agriculture field It is quick & save the time.	
Assignment:-	children about technical tool in your note book.		

Macro lesson plan - 12

I. Preliminary information :-

Name of the student Teacher:

Register NO:

Name of the subject: Biological science

Class : 7th

Name of the observer: K. Durga

Name of the school: Z.P.H.S Talwada

Date : 19-02-24

Time : 45min

Name of the Topic: Crop management & Production

Name of the subTopic: Adding manure & fertilizers

Teaching method : Lecture cum Demonstration Method.

Teaching learning Material: Showing on charts ; pictures etc

Reference Books: Biological text book, Dictonary.

Content Analysis: what is fertilizers and manure ?

what is use of Suppling fertilizers and manure to the plants.

Academic Standards :-

Conceptual understanding :- The children able to understend the content of Adding the fertilisers and Manure.

Asking questions making Hypothesis :- children asked questions on fertilizers and manures.

Experimentation and field Investigation:- The children do experiment and field investigation and fertiliser and manure.

Information skills and projects:- The children collect information on the fertilisers and manure and perform project work.

Appreciation and Aesthetic sense and values:- children Appreciate the feel Aesthetic sense of fertilizer and manure and gives the values

Application to Daily life and concern to Biodiversity:- These are so useful in our Daily life and in the Biodiversity.

S. No	Teaching Steps	Teaching Learning Strategy	Black Board work	TLM.
	Introduction wishing Mind mapping Providing questions Announcement of the TOPIC:-	Good morning Students? How are you write some examples for fertilizers what is meant by vermi compost? children able to understand the topic	fertilizer Examples Urea, Ammonium Sulphate, (NPK) Nitrogen Phepay Potassium	Flow on Chart

II.	Reading the content Difficult in meanings	children read pg 60, 62 and underline words. Explaining the meanings in the lesson.	Manure:- An oraganic substance that is obtained from the decomposed plant and animals wastes is called Manure.	Show on the Pictures.
III.	conceptual understanding	children are understands concept and observe the Activity. in page NO 62 given.		
	observation	Activity:- The moong seeds to germinate them. Select 3 equal size seedings take 3 empty glasses or similar vessels. Mark them A; B and C. To glass A a little amount soil mixed with little urea. Take the some amount of H_2O in each glass plant the seeding kept safe place & water daily after 7 to 10 days observe their growth plant in glass didn't grow at same place. Glass B' showed better		

growth of plants Plants in glass pasture growth.

IV Demonstration :- Activity :- Take a 3 glasses and put moong dal seeds in it mark it as A; B; C & little amount of Soil manure; urea; add salt in C without any thing keep in safe place water it Daily; observe after 7; 8 hrs.

growing seedings with manure and fertilizers.

shown chart.

observation Plant in glass didn't grow; at some pace glass B showed result in glas B showed ~~fast~~ result

Discussion :- ~~fertilizers~~ are chemical product manure are natural Remedies

conclusion Crop rotation method helps the soil replenis with Nutrients

Evaution What are use of manure and ~~fertilizers~~?

Assignment children write about ~~fertilizers~~ ~~adding~~ manure in note book?

fertilizer :- The use of fertilizer helps farmer get yield crops better. Ex:- paddy, Maze, etc--

Manure :- Manure make soil porous due to which exchange of gases easy

Macrolesson plan - 13

Preliminary information

Name of student Teacher :

Register No :

Subject : Biological science

Class : 7 th

Name of the observer : K. Durga

Name of the school : Z.P.H.S Talwade

Date : 20-02-24

Time : 45min

Name of the TOPIC : Crop production & management

Name of the SUBTOPIC : Diffrence b/w the fertilizers and manure.

Teaching method : Lecture cum Demonstration method

Teaching learning material : showing on charts.

Reference Books : Biological science ; Dictonary

Content Analysis : what is Diffrence between the fertilizers and manure

why manure is consider better than fertilizers.

Academic Standards :-

Conceptual understanding :- children are understanding the content of diffrence between fertilizers and manure.

Asking questions making Hypotheis :- children are asking the questions about diffrence between fertilizers manure and making Hypotheis

Expesmentation and field investigation:- children doing field investigation and experiment on the difference between fertizers and manure.

Information SKills and projects:- children collect information about the content and also Perform Project on it.

Appeceation and Aesthtic Sense and values:- children Appreciate the difference fertilizers manure and feel sense the Aesthetic Valve in nature

Application to daily life and concern to Biobiversity:- children use this Process in their Daily life in the Biodiversity.

S.No	Teaching steps	Teaching learning Startgy	Black Boood Teaching	TLM
	Introduction	Good moring students	fertizer →	
	Wishing	How are you?	Manure to the	
	Mind Mapping	what are Disadvantages of the fertilizers	Plant give Nutrients and	Show the Picture.
	Providing questions	what are the Advantages of manure?	better growth	
	Amoeement of the topic	children Let's Discuss about		

II. Reading the content

Difficult words meanings conceptual understanding

The difference b/w fertilizers manure children Read pg NO 64. and underline New words explanning the meanings in the lesson.

children observe the table of Diffrence b/w fertilizer and manure.

Disadvantages of fertilizers:-
manure enhance the water holding capacity in the soil. It increase the no of friendly microbes.

Advantages of manure
It improve the texture of the soil.

IV. Table 3.1. Diffrence Between fertilizer and manure.

S/N.	fertilisers	Manure.
1.	fertilisers is a man-made inoragnic salt	manure is natural substance obtained by the Decompostion of cattle During plant Residues.
2.	fertiliser is prepared in factories	Manure can be prepared in the fields.
3.	fertilisers doesnot provide any humus to the soil	manure provides a lot of humus to the soil
4.	fertilizers are very rich in plant nutrients like nitrogen phosphery and potassium	manure is relatively less rich in plant nutrients.

Discussion	fertiliser are man made inorganic soil. It provide Humus to soil. Having Rich nutrients. manure is oraganic based. It provides humus to soil. having less nutrients.		
V. conclusion:-	manure is oraganic food based and better than fertilizer. fertiliser inoraganic based and also gives Nutrients to plants.	So; we must need both fertilisers and manure for the plant growth	Show on chart
Evalution:-	Is fertilizer is inoraganic? where do manure prepare?	yes; It is man made inoraganic salt. manures Prepare in the field.	
Assignment	children write the table for in note book?		

Macro lesson plan - 14

Preliminary information:-

Name of the student Teacher:

Name of the observer: K. Durga

RegisteNO:

Name of the school: Z.P.H.S Talwada

Subject; Biological science

Date: 21-02-24

Class : 7th

Time: 45min

TOPIC Name : Crop management & production

SubTopic Name; source of irrigation; Traditional methods of irrigation

Teaching method : Lecture cum Demonstration method.

Teaching learning material : showing charts

Reference Books : Biological science Books, Dictonary

Content Analysis: what is irrigation?

what are source of irrigation?

Acadamic standards:-

Conceptual understanding:- children are understanding the content about the source of irrigation and Traditional method of irrigation

Asking questions and Making Hypothesis:- children asking questions about the irrigation methods and sources irrigation and making Hypothesis.

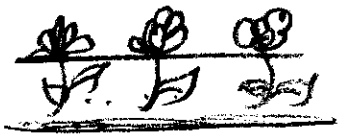
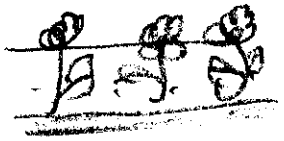
Experimentation field investigation:- The children do field investigation and experiment on the sources, traditional methods of irrigation.

Information skills and projects:- children collect information and performs the project on traditional and source of irrigation

Appreciation and Aesthtic sense of values:- children ~~Appreciate~~ the feel and Aesthtic sense and valve of Irrigation in the nature

Application to daily life and concern to Biodiversity:- children use this process in Agriculture field in Biodiversity.

S. No	Teaching steps	Teaching learning strategy	Black Board Teaching	TLM.
	Introduction Wishing	Goodmorning students How are you	sprinkle system and the drip System of Modern methods	Show the Picture
	Mindmapping	Define Irrigation		
	providing questions	what are the traditional methods and type of irrigation?		
	Announcement of topic	children we will discuss about the source, methods of irrigation		

II.	Reading the Content Difficult words meanings	children read page 64; 66 and 68 Explaining the methods meaning 8 in lesson		
III.	conceptual understanding	Read pg NO 64; 66; 68 and Observe the Diagram		
		Activity:- Take the Drip pipes and put wholes to Pipes and arrange properly in cannot be canal and give a connection.		shown the charts
	Observation:-	To motor and Daily turn on the Motor when it required water for the water falls drop by drop directly to the roots. By this technizues the water supplies untill to root and also the waters will not wasted.		

IV	Demonstration	Activity:- In this system the wateru is sufficient the perpendicular pipes having relating Nozzales on the top and gained the pipline at intakes under pressure of pump escape from rooting Nozzales		
	Observation:-	we observed that the sprinkle method is useful for coffee plant also. not for small crops Because it may be due to not required amount H_2O.		Show on the charts
V	Conclusion:-	children drip system to is better small field where large field		
	Evaluation:-	iii. requires sprinkle system what are examples of the Traditional method	Moat (pulley system dhekli chain pump Rahat (lever system)	
	Assignment	write the sources & methods of Irrigation in the Note book?		

Macro lesson plan-15

I. Preliminary information :-

Name of student Teacher:

Register NO:

Subject : Biological science

Class : 7th

Name of the observer : K. Durga

Name of the School : Z.P.H.S. Talwada

Date : 22-02-24

Time : 45min

Name of the topic : Crop mangement & production

Name of the sub-Topic : storage

Teaching method : Lecture cum Demonstration method

Teaching learning material : Showing on charts.

Reference Books : Biological Science book, Dictionary

Content Analysis :- ① what is storage

② why storage is necessary.

Academic standards :-

Conceptual understanding :- children understanding the concept of storage

Asking Questions and making Hypothesis:- children ask Questions about the storage and making Hypothesis

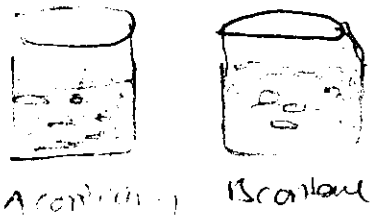
experimentation and field investigation:- children will do experiment and field investigation on the storage

Information skills and projects:- children will colecte information about storage and also perform project on it

Appreciation of Aesthtic sense and value:- children able appreciate the storage and feel Aesthtic sense of these storage occurs in Nature.

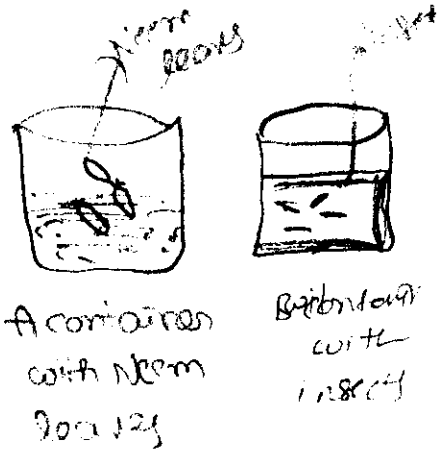
Application to Daily life and concern to Biodiversity:- The children use this process in their Daily life in our Biodiversity.

Sl No	Teaching steps	Teaching learning Strategy	Black Board Teaching TLM.
I	Introduction	Good morning students	Storage:- The task of keeping harvested grains in safe that in protected from moisture rats, insects and Micro oraganism collect as storage. Showed on the Chart
	wishing	How are you	
	mindmapping	It grains are not Stored properly what happen?	
	providing Questions	which place we storage grains where we store grains	
	Annoucement of Topic	children we will discuss about the storage.	

II	Reading the content Difficultwords Meanings.	Read pg: 72, 74 ; and underline the words in the lesson silos and gepan explaning the meanings in lesson	silos and grami nues.	
III	conceptual understanding	children observes the Diagaram of page no 74: in the Text book Activity :- Take 2 steel containers and put rice in it and add Neem leaves on that Rice. where as in B steel container put rice don't add anything to it. observe for 7-8 days.		Show on the picture
	observation	I saw that there is no insect a container whereas I saw a insects in B container. The leaves may acts as a Insecticides on Rice. So that we won't causes any Dieaks.		
IV	Demonstration	Activity :- Take 2 steel containers with rice add a Neem leaves in a container and Don't add		

anything B container and observe it for 7-8 days.

observation I observed that there is no insects in a container That Insects in B container. That insects acts as a Insechites on the Rice



Discussion we should Store products to protect from pests and micro oraganisms.

show on the charts.

V conclusion They gat spilled by oraganisms making them infut for use of germination.

Evaluation where do farmers store grains
large scale storage grains are where do stored.

Assignment children write about storage in Note book?

Macro lesson plan - 16

Preliminary Information:-

Name of the student Teacher:

Register NO:

Name of the observer: K. Durga

Name of the school : Z.P.H.S Talluvada

subject : Biological science

Class : 7th

Date : 23-02-24

Time : 45min

Name of the TOPIC : Crop management & production

Name of SUBTOPIC : ~~food~~ from animals

Teaching Method : Lecture cum Demonstration method

Teaching learning material : Showing on charts

Reference BOOKS : Biological Science BOOKS, Dictionary

Content Analysis : ① what are the pracess of crop production

② what is Animal Husbandary

③ what are the sources of milk.

Academic standards:-

Conceptual understanding:- The children are able to understand about food from Animals content in this lesson

Asking questions and making Hypothesis:- children are asking questions about food from animals content and making hypothesis

Experimentation and field Investigation:- The children are doing field Investigation and experiment on food from animals.

Information skills and project:- To children collect information on the food from animals and perform project on it

Appreciation and Aesthic sense and values:- children appreciate the from animals and feel Aesthic sense of foods of Animals in Nature.

Application to daily life and concern to Biodiversity:- Children will able to use this process in their Daily and also Biodiversity.

Ka.	reading steps	Teaching learning strategy	Black Board reading TLM.
I.	Introduction wishing	Good morning students. How are you?	we take food to get a energy It
	mind mapping	what do plants and animals	is main source
	Pre questions	Provide us?	in our body to
		will animals need a shelter why	Perform variety
		what's the present?	Factory
	Annuacment of the Topic	The children abled to understand the food from animals	

II. Reading the content :- children read pg no. 74 and underline the new words

Difficult words meaning — Explaining the New words in the lesson

III. conceptual understanding — children read the table form in page NO. 74.

food production is done on large scale It provides food for the large population; Rapid Reduction; proper mangement

Activity: 3.3 Table form

IV

S. NO.	food	Sources
1.	milk.	cow; Buffelow, sheep, goat the camel.
2.	Eggs and meat	chick; goat, sheep
3	Honey	Honeybees.

observation	Taking a proper food we get rich proteins; Nutrients to our body to be healthy and It.		Show on the Chart
IV. Discussion	many people living in the costal areas consume fish because it's major part of diet.		
V conclusion	Selection of seeds; sowing etc are the crop production food is obtained from animals from animals for chicken animals organ called animal husbandry		
Evaluation	Do plants prepare their own food.	yes plants prepare their own food due photosynthesis. plant take co2 sunlight and h2o can prepare the food	Show the picture on chart
Assignment:-	children write advantages of plants & animals in Note Book!		

Macro lesson plan-17

Preliminary Information:-

Name of the student Teacher:

Register No:-

Name of the observer: K. Durga.

Name of the school: Z.P.H.S Talawade

Subject : Biological science.

Date : 26-02-24

Class : 7th

Time : 45min.

Name of the Topic : conservation of plants & animals

Name of the subTopic : Deforestation causes and consequence of Deforestation

Teaching method : lecture cum Demonstration method

Teaching learning material : Showing on charts & pictures

Refernce Books : Biological Science Book, Dictionary

Content Analysis:- what is Deforestation?

what are causes of the Deforestation?

Academic standards:-

Conceptual understanding:- children able to understand the content of Deforestation causes of and consequences of Deforestation in this lesson

Asking Questions and making hypothesis:- children are asking questions about Deforestation and consequence of Deforestation and making hypothesis.

Experimentation and field investigation:- The children are doing the field Investigation and experiment on Deforestation Process.

Information skills and project:- children collect information and perform Project work on the Deforestation Process

Appreciation and Aesthtic Sense and values:- children Appreciate about Deforestation in surrounding & Aesthtic Sense of value in nature.

Application to Daily life and concern to Biodiversity:- children use this Proces in their Daily life of Deforestation in Agriculture Biodiversity.

S. No.	Teaching steps	Teaching learning strategy	Blackboard work	TLM
	Introduction Wishing Mind mapping Providing questions	Good morning students How are you? what is Deforstation what is Difference b/w Afforestation and Deforestation	Deforestation Global warming Destrification Doughs	Showing on chart

II.	Reading the content Difficult words meanings	children read page NO 30,32 underline the difficult words Explaining the meaning of Difficult words in lesson	Deforstation :- The Deforstation means cleaning the forests and using land for other purpose.
III.	conceptual understanding	children the pg 30 ; 32 and observe the Table form.	

Activity

S. NO.	Natural causes of deforestation	Man made causes of deforestation
1.	forest fires	wood for the manfracture paper
2.	severe Drought	wood for fuel
3.	floods	wood for Making Houses

observation	I observe that we are using trees our work purposes and also causing a lot of Natural Deforestation

I Demonstration	Activity:- cutting a trees and plants are may causes of the Deforestation in natural way and by man made causes Before station observe them closely.		
observation	I observed that there many vawble ways to cut the trees as well as causing natural Diester's also.		showing on the charts.
Discussions	Deforestation:- The ferbile land gets converted into the Desert called Deforestation.		
I conclusion	Deforestation in major cause which leads to change in soil properties ; Physical of soil get affected by vegtation plant		
Evaluation	what are natural causes of the Deforestation?		
Assignment	children write about Deforestation Notes	forest fires and severe drought are natural causes of Deforestation	

Macro lesson plan - 18

I. Preliminary Information :-

Name of Student Teacher:
Register NO :
Subject : Biological science
class : 7th
Name of the topic : conservation of plant and animals
Name of the subTopic : conservation of forest and wildlife
Teaching method : Lecture com Demonstration method
Teaching learning material : showing on charts ; pictures
Reference Books : Biological scienc ; Dictonary
Content Analysis : what is BiosphrReserve.
what is wildlife sanctuary ?

Name of the observer: K. Durga
Nam of the school: Z.P.H.S Talawada
Date: 27-02-24
Time: 45min

Academic standards :-

conceptual understanding :- children able to understand the concept of conservation of forest and wildlife.

Asking questions and Making Hypothesis :- children asking questions about the conservation of forest and wildlife and making Hypothesis

Experimentation and field Investigation:- children do field Investigation and experiment on the conservation of forest and wildlife.

Information skills and projects:- children are collecting information on conservation of forest and wildlife and perform project on it

Appreciation and Aesthic sense and values:- The children able to appreciate the conservation of forest wildlife feel aesthic sense values nature

Application to Daily life and concern to Biodiversity:- The children use this process on conservation of forest and wildlife using daily life in Biodiversity.

Sl No	Teaching steps	Teaching learning startgy	Black Board Teaching	TLM.
1	Introduction Wishing mind mapping Posing questions Announcement	Good morning students How are you? what is Biodiversity? what is the National Park. children we shall Discuss about conservation of plants? animals.	Biosphere Biodiversity Wildlife Sanctary National Reserve Protected area.	Show on the chart
II	Reading the content	Read the content Pg No 32, 34		

Difficult words Meanings:-	Explanning the words meanings children read page NO 32	The protect Our flora and fuma and their habitats protected area called wiflife sanctuary
II. Conceptual understanding	Activity:- Animal life is also affected by the Deforestation cause Disturbel in food chain and also observe Affects of Deforestation around us.	
Observation	Deforestation makes the Animals homeless. Animals become easy Poray for the Hunters. Animals face Bad effects of the natural calamities.	Shaw the pictures.
V Demonstration observation	Deforestation cause the Disturbance in food chain Deforestation makes animals Homeless. Animals become easy pray for hunters.	
Discussion	Biodiversity is the variety of living oraganisms in specific area.	

V conclusion	The protected areay meant for the conservation of plants and animals are called Biosphere Reserve.		
Evaluation	what is National Park. what is wild life santuary	Areas reserved for wild life where they can freely use the Habitay ; natural Reserve where animals & protected from Disturbance to them and ther Habitat	showed on the charts.
Assignment	children write Brief information about the conversation of plants and animals in Note ~~book~~?		

Macrolesson plan-19

Preliminary information

Name of the student Teacher:

Register No:

Subject : Biological science.

Class : 8th.

Name of the observer: K. Durga

Name of the school: Z.P.H.S Tarluwada

Date: 28-02-24

Time: 45min

Name of the Topic : conservation of plant and animals

Name of the subTopic: flora an fauna.

Teaching method : Lecture cum Demonstration Method.

Teaching learning material : Showing on charts.

Reference Books: Biological Science & Dictonary

Content Analysis: what is flora an fauna.

write 2 examples for flora and fauna.

Acadamic Standards;

conceptual Understanding:- childre able to understanding about the concept of folk and fauna.

Asking Question Making Hypothesis:- children asking questions abaut flora and fauna making Hypothesis.

Experimentation and field Investigation:- children do field and Investigation and experiment on flora and fauna.

Information skills and project method:- children collect data about flora and fauna having Aesthetic feel sense and values in nature. perform project on it.

Application of Aesthetic sense and values:- children are Appropriate the flora and fauna having Aesthetic felt sense and value in nature.

Application of Daily life and concern Biodiversity:- children use this Process in their Daily life of flora and fauna in Biodiversity.

S.No	Teaching steps	Teaching learning startgey	Black Board Teaching	TLM.
1.	Introduction wishing mind mapping Paiding questions Announcement of the Topic	Good morning students How are you? write the Difference between flora and fauna. Did Animal feels happy in surving their habitat? children we shall discuss about the flora and fauna	flora:- The plants found in a particular area.	Show on the chart

II	Read the content: Difficult words meaning	children Read page NO.36. and underline words. explaining the meaning in the lesson.	
III.	conceptual understanding	children Read Pg NO.36 and write examples for flora fauna	eg:- teak, Guva for flora.
		activity:- cutting the trees Raising water level air, pollution. Excessive construction of Buildings using more resources. Now check out their	Bulls walk are examples for fauna.
	Observation	Implementing some laws & acts which control the conservation of wild life By awareness of Biodiversity.	

IV Demonstration Activity:- cutting trees Raise Fe_2O_3, H_2O, land pallution Exercise construction Building

observation Using more resource Implementing some leaves and acts as controled the conservation of wild life

Discussion The plants found in a partic ular area is flora. the animals found in particular area is fauna.

V conclusion the animals are conservabe and their habbitait.

Evaluation:- write 2 examples for flora fauna.

Assignment children write about flora fauna table form.

Ex: Teak, mangoes flora. Deer leopard are for fauna.

shown the chart

Macrolesson – 20

preeminary information:-

Name of the student teacher:-

Name of the observer: K. Durga

Name of the school: Z.P.H.S Tarluvada

Register NO:-

Date: 29-02-24

Time: 45min

Subject: Biological science

Class: ~~8~~th

Name of Topic: conservation of plants

Name of the sub-Topic: Endemic species

Teaching method: leeture cum Demonstration method

Teaching learning material: Showing on charts

Reference Books: Biological science, Dictionary.

Content Analysis: What is endemic species?

Give the examples endemic flora of Balimeli Biosphere.

Academic Standards:-

Coneptual Understanding:- children are ableto understand about the endemic species

~~Asking~~ questions and making Hypothesis:- children asked questions on endemic species and making Hypothesis

Experiment field Investigation:- children do field investigation & experiment.

Information Skills & Project:- children collect and perform project on appreciation endemic species

Appreciation and Aesthtic sense values:- children appreciate the about endemic species and feel Aesthtic sense and values in the nature.

Application to Daily life & concern Biodiversity:- children all this proces in their Daily of endemic species in the Biodiversity.

S. No	Teading steps	Teaching learning startgy	Black Board Teading	TLM
	Introduction	Good morning students		
	wishing	How are you		
	mindmapping	write 2 example for endemic fauna		
	Reading & Questions	children lets discuss about the endemic species.	Endemic species	Shown the charts
	Annament of Topic	children read P.g. No. 38		
	Read the content Difficult words meanings	Explaning Difficult words meaning in the lesson		

VII. conceptual understanding	children Read page NO 38 of endemic species content Activity: Try to Identify the flora and fauna of your and list them.	
observation	flora: peepal; Rose lemon fauna: ox, dog; cat, etc.	
Demonstration	Activity:- find the endemic plant and Animal of region where you live.	show on the pictures.
observation	endemic plants:- wild mango etc. Animals Bison, Indian squad.	
Discussion	The species of plants and Animals are found in Panthalan area.	
conclusion	A group of Panthalan which are capable of Inter breeding.	Bison Indian giant squad and flying squad.
Evaluation	what is Beinaeli endemic flora example.	
Assignment	children write the endemic species?	