



**St. Joseph College of Teacher Education for Women
Ernakulam**



CRITERION II

2.7.5 Performance of students on various assessment tasks reflects how far their initially identified learning needs are catered to

(Documentary evidence in respect to claim)

Submitted to
National Assessment and Accreditation Council (NAAC)
3rd Cycle of Assessment



**ST. JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN ERNAKULAM
KOCHI-682035, KERALA**

2.7.5 Performance of students on various assessment tasks reflects how far their initially identified learning needs are catered to

(Documentary evidence Of the need Classroom Management)

Sl.No.	Need	Documents	Pages
1	Classroom Management	Criticism Teaching Manual	1-16
		Induction lesson plans	17-28
		Workshop on Preparation of teaching aids	29-30
		Self-assessment tool	31-48
		Preparation of ICT Materials	49-56

CRITICISM TEACHING MANUALS

CRITICISM TEACHING MANUAL No. 1

Name of the teacher : Saniya Simon	Standard : \bar{X}
Name of the school : St. Marys CGHSS, Ernakulam	Date : 6/7/2022
Name of the subject : Biology	Duration : 40 minutes
Name of the Unit : Sensations and responses	Period : 4 th
Name of the topic : Structure of neuron	Strength : 12/12

CONTENT ANALYSIS

TERMS

: Neuron, nerve cell, nervous system, cell membrane, cytoplasm, nucleus, dendron, dendrite, schwann cell, cell body, axon, axonite, synaptic knob, neurotransmitters, myelin sheath, oligodendrocytes, spinal cord, white matter, grey matter

FACTS

: * Neuron is the basic structural unit of the nervous system
* Nerve cell has a cell body which consists of cell membrane, cytoplasm and nucleus



Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph's College of Teacher
Education for Women,
Ernakulam

- * Dendron, dendrite, schwann cell, axon, axonite and synaptic knob are the main parts of neuron
- * Dendron is a short filament from the cell body.
- * Branches of dendron are called dendrites
- * Dendrites receives impulses from adjacent neuron
- * Axon is the longest filament from the cell body
- * Axon carries impulses from the cell body to outside
- * Schwann cells encircles the axon
- * Axonite carries impulses to the synaptic knob
- * The tip of axonite is called synaptic knob.
- * Neurotransmitter are secreted by synaptic knob
- * Myelin sheath is a membrane containing lipid.
- * Axon of the neuron are encircled by myelin
- * Nerve is a group of axons
- * Schwann cells forms the myelin sheath in the nerves
- * Oligodendrocytes are specialized cells which forms myelin sheath in brain and spinal cord
- * Oligodendrocytes and schwann cells protects the neurons
- * Oligodendrocytes constructs myelin sheath by covering different axons

- * Myelin sheath has a shiny white colour
- * Myelinated nerve cells in brain and spinal cord is called white matter
- * Non-myelinated nerve cells in brain and spinal cord is called grey matter
- * Myelin sheath provide nutrients and oxygen to the axon
- * Myelin sheath accelerates impulses
- * Myelin sheath act as a electric insulator and protect the axon from external shocks

CONCEPTS

- The structure of neuron is well suited for the function of impulse transmission

LEARNING OBJECTIVES

KNOWLEDGE DOMAIN : The pupil acquires knowledge and ~~comprehension~~ ^{understanding} about:

- identifies the structure of neuron
- differentiates between grey matter and white matter
- lists out the parts of neuron
- explains the formation of myelin sheath



Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 St. Joseph College of Teacher
 Education for Women,
 Ernakulam

PROCESS DOMAIN : The pupil develops process skills in :

- observes the structure of neuron
- classifies the various parts of neuron
- communicates the functions of myelin sheath
- infers the role of myelin sheath in protection of brain and spinal cord

APPLICATION DOMAIN : The pupil applies knowledge in :

- critically thinks about the role of various parts of neuron in impulse transmission
- understands the functions of myelin sheath
- gives reason for the differentiation of grey matter and white matter
- applies the knowledge about neuron in the study of nervous system

ATTITUDINAL DOMAIN : The pupil develops positive attitude towards:

- develops positive attitude towards people suffering from nervous disorder
- takes initiatives to follow healthy lifestyle

- makes decision to avoid the use of drugs
- develops curiosity to know more about nervous system

CREATIVITY DOMAIN : The pupil creates ideas about:

- prepares chart on structure of neuron
- designs poster about the health hazards caused by drugs
- constructs 3D model on the structure of neuron
- conducts awareness class on drug abuse

PRE-REQUISITE

The pupil already knows that the responses occur when the impulses reach the brain

LEARNING STRATEGIES

Group discussion, demonstration

Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam



LEARNING MATERIALS / ICT

- Activity No.1 :

Activity No.2 :

- 1) Textbook
- 2) Activity card on structure of neuron
- 3) Chart on structure of neuron

Activity No.3 :

- 1) Reading material on function of various parts of neuron
- 2) Activity card on function of various parts of neuron
- 3) Video clipping on function of various parts of neuron

Activity No.4 :

- 1) Textbook
- 2) Activity card on formation and functions of myelin sheath
- 3) Powerpoint slides on formation and functions of myelin sheath.

VALUES

- 1) Empathy towards fellow beings
- 2) Self respect
- 3) Determination for healthy living

EXPECTED PRODUCTS

- 1) Model on structure of neuron
- 2) Chart on harmful effects of drugs
- 3) short note on the formation of myelin sheath

LEARNING ACTIVITIES

Activity No. 1 (Introduction)

Teacher and students conduct a discussion on the stimulus and responses in organisms with daily life examples

Points for discussion

- * Stimulus and responses in organisms
- * Control and coordination
- * Neurons



Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

RESPONSE/EVALUATION

- 1) Participation in the activity
Students carefully observed the chart on stimulus and responses and they actively participated in the discussion about stimulus and responses
- 2) Communication and coordination of ideas
With the help of the chart, students understood the stimuli and communicated their experience. Each student from group 1 and group 2 shared their experience
- 3) Acquisition of skills
Students were able to acquire

LEARNING ACTIVITIES

STRUCTURE OF NEURON (CB)

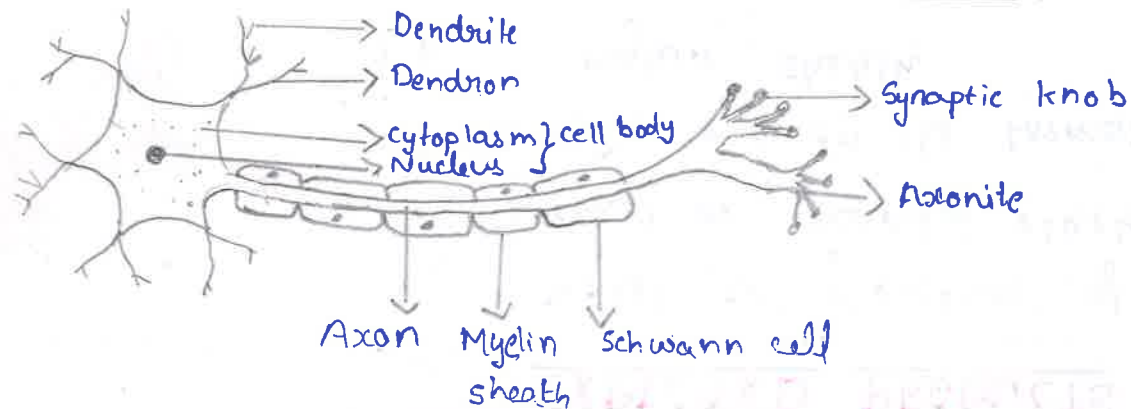
Teacher consolidates the discussion by saying that neuron is the basic unit of nervous system which helps in the control and coordination of activities.

Teacher divides the class into different groups

Activity No.2

With the help of textbook, students complete the activity card to understand the parts of neuron

STRUCTURE OF NEURON



RESPONSE/EVALUATION

the skills of observation, critical thinking and communication

4) Presentation and performance

students presented their ideas with great enthusiasm. A student from group 2 spoke very clearly about stimulus and responses to the whole class

1) Participation in the activity

students actively participated in the activity on structure of neuron and group 1 completed the activity first

2) Communication and coordination of ideas

Students communicated their ideas very effectively in the groups about the structure of neuron. Student from

LEARNING ACTIVITIES

Fill in the blanks

- 1) The branches of dendron is called _____
- 2) _____ is the longest filament from the cell body
- 3) _____ encircles axon
- 4) The tip of axonite is called _____
- 5) _____ is the short filament from the cell body
- 6) The branches of axon is called _____
- 7) _____ and _____ comprises the cell body

Cell body (CB)

Nucleus (CB)

Cytoplasm (CB)

Dendron (CB)

Dendrites (CB)

Schwann cells (CB)

Axon (CB)

Axonite (CB)

Synaptic knob (CB)

RESPONSE / EVALUATION

group 4 answered most of the questions correctly and clearly. So the rest of the groups also got their answers correct

3) Acquisition of skills

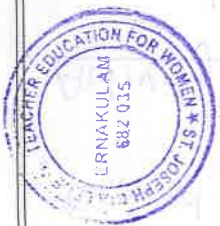
Students acquired skills like problem solving, communication skill and take initiatives to answer the questions

4) Presentation and performance

Students performed the activity very well. Students was very excited to present the answers. I asked students from group 2 and group 3 to present their answers and they answered very excellently

5) Documentation

A completed document on the structure of neuron was prepared by



Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

LEARNING ACTIVITIES

Teacher consolidates the activity by explaining the detailed structure of neuron using chart

Activity No.3

With the help of reading material and activity card students understand the function of various parts of neurons

Observe the table carefully

Parts	Functions
- Dendrite	- Receives impulses from adjacent neuron.
- Dendron	- carries impulses from dendrites to the cell body
- Schwann cell	- Encircles the axon
- Axon	- carries impulses from cell body to outside
- Axonite	- carries impulses to the synaptic knob

RESPONSE / EVALUATION

the students

1) Participation in the activity
students carefully observed the video on functions of various parts of neurons and actively participated in the discussion.

2) Communication and coordination of ideas
students were very keen to understand the functions of neurons. students read reading materials in groups and shared their ideas. One student from group 1 and one student from group 4 read the answers very clearly and aloud.

LEARNING ACTIVITIES

- Synaptic knob - secretes neurotransmitters

Complete the boxes with the help of table

Dendrite	
Dendron	
	encircles the axon
Axon	
Axonite	
	secretes neurotransmitters

receives impulses (CB)

impulses from dendrites to cell body (CB)

impulses from cell body to outside (CB)

impulses to the synaptic knob (CB)

secretes neurotransmitters (CB)



RESPONSE (EVALUATION)

3) Acquisition of skills

Students acquired skills such as problem solving, observation and communication.

4) Presentation and performance

Students very well answered the questions. One student from group 4 effectively presented the functions of each part.

5) Documentation

A completed document on the functions of each part of neurons was prepared by the students.

Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

LEARNING ACTIVITIES

Teacher consolidates the activity by explaining functions of various parts of neuron using video

Activity No. 4

With the help of textbook, students complete the activity card to understand the formation of myelin sheath.

I) Identify the word pair relation and fill in the blanks

a) Myelin sheath in nerve : Schwann cells

Myelin sheath in brain and spinal cord : _____

b) Myelinated nerve cells : _____

Non-myelinated nerve cells : Grey matter

II choose and stick the correct function of myelin sheath from the box given below

RESPONSE/EVALUATION

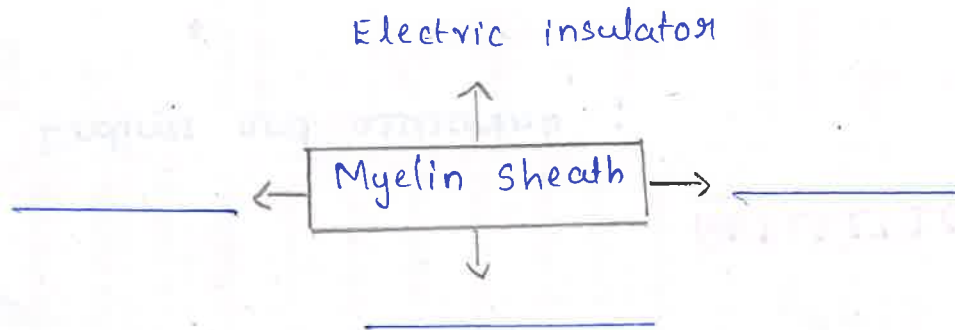
1) Participation in the activity

Students carefully read the material on formation of myelin sheath and they actively involved in the discussion

2) Communication and coordination of ideas

Students very well communicated their understanding about myelin sheath and they communicated the formation of myelin sheath in the group with the help of text book.

LEARNING ACTIVITIES



Provide O_2 to axon, accelerate impulse, receives impulses from dendrites, secretes neurotransmitter

Myelin sheath (CB)

Schwann cells (CB)

Oligodendrocytes (CB)

White matter (CB)

Grey matter (CB)

Protection of axon (CB)

Impulse transmission (CB)

RESPONSE / EVALUATION

3) Acquisition of skills
Students acquired skills like communication, critical thinking and observation.

4) Presentation and performance
Students from group 1 and group 3 answered all the questions first. A student from group 3 presented the functions of myelin sheath clearly.

5) Documentation

A completed document on the formation and functions of myelin sheath was prepared by the students

Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam



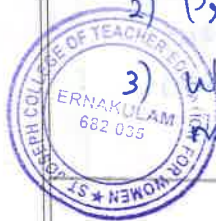
LEARNING ACTIVITIES

Teacher consolidates the activity by explaining the formation and functions of myelin sheath using a powerpoint presentation

Teacher consolidates the class by explaining the structure of neuron, functions of parts of neuron, formation and functions of myelin sheath and giving awareness about nervous disorders and its prevention

FOLLOW UP ACTIVITIES

- 1) Prepare a model on structure of neuron
- 2) Prepare a chart on harmful effects of drugs
- 3) Write a short note on the formation of myelin sheath



REFLECTION

My findings and assessments :

Remedial activities :

19/10/2022

RESPONSE / EVALUATION

Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

St. Joseph College of Teacher Education for Women, Ernakulam

Induction Programme

Student Teacher Evaluation Proforma - Semester II (2022)

Name of the Teacher : *Saniya Simon* Class: *X*
 Optional Subject : *Natural science* Date: *6/7/22*
 Date of Observation : *6/7/22*
 Name of the School : *St. Marys CGHSS, Ernakulam*

Sl. No	Components	Sub components	Excellent	Very Good	Good	Average	Poor
1	Introducing the Topic	Relevant		✓			
		Interesting	✓				
		Novel	✓				
2	Subject Competency	Resourcefulness		✓			
		Linking with life situation	✓				
		Logical Sequence		✓			
		Creativity and Imagination	✓				
		Consolidation		✓			
3	Communication	Stimulus Variation		✓			
		Fluency of language	✓				
		Presentation	✓	✓			
		Language					
4	Instructional Strategies	Encourages learning	✓				
		Interactive mode	✓				
		Progress of lesson		✓			
		Technology integration	✓				
5	Learning Materials	Skillful handling	✓				
		Novelty and variety		✓			
		Innovation		✓			
		Appropriateness	✓				




Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 St. Joseph College of Teacher
 Education for Women,
 Ernakulam

6	Classroom Climate	Student centeredness	✓				
		Learner participation		✓			
		Inclusion		✓			
		Individual assistance		✓			
7	Learning Activities	Utilization of Technology	✓				
		Suitability		✓			
		Guided Activity	✓				
		Comprehensiveness	✓				
8	Closure	Time management		✓			
		Evaluation		✓			
		Follow up/Extension activity		✓		✓	
		Critical reflection					
9	Teacher	Appearance and Manners	✓				
		Confidence Level	✓				
		Techno pedagogue	✓				
10	ICT skills	Digital literacy (online resources)	✓				
		Create Audio/Video	✓				
		Online accessibility		✓			
		Presentation skills		✓			

Comments: Teacher introduced the topic very interestingly chart and powerpoint slides used were appropriate for the content. Teacher succeeded in linking the content with life situation. Teacher should be little more louder and should take more care to provide equal attention to all groups.

Name of the observer: Meera Susan Kurian

Signature: 





Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph's College of Education,
Ernakulam

INDUCTION TEACHING MANUAL No.5

Name of the teacher : Meera Susan Kurian	Standard : <u>VIII C</u>
Name of the school : St. Joseph CoHSS, Thripunithura	Date : 1/8/22
Name of the subject : Biology	Duration : 40 minutes
Name of the unit : Cell clusters	Period : 3 rd
Name of the topic : Levels of organisation	Strength : 35/39

CONTENT ANALYSIS

TERMS : Atom, molecule, cell, cell organelle, tissue, organ, organ system, organism, population, community, nervous tissue, epithelial tissue, connective tissue, muscular tissue, digestive system, respiratory system, excretory system, heart, blood vessels, nose trachea, lungs, kidney, ureter, urinary bladder, brain, nerves, digestion, cell division, cell differentiation

- FACTS** :
- All materials are basically made up of atoms
 - Atoms combine together to form molecules
 - Cell is the basic unit of life
 - Cell contains cell organelles

- Tissues are group of similar cells that have a common origin and perform specific functions.
- Organs are formed by group of tissues that undertake specific functions.
- Combined action of various organs helps in the smooth functioning of the body.
- Organs combine to form organ system.
- Organisms can survive when organ systems work in coordinated way.
- Stomach which helps in digestion is made up of muscular tissue.
- Stomach is lined by epithelial tissue.
- Stomach has blood vessels that carry blood.
- Nervous tissue helps to receive stimuli regarding changes taking place in the stomach and send proper impulses.
- Structure of higher order animals is a combination of various organ system.
- Stomach, liver, intestine etc are different organs of digestive system and its combined action helps in digestion.
- Circulatory system consists of organs like heart and blood vessels.



Alice Joseph
 Alice Joseph
 Principal in charge
 St. Joseph's College of Higher
 Education for Women,
 Ernakulam

- Respiratory system consists of organs like nose, trachea and lungs.
- Excretory system consists of organs like kidney, ureter and urinary bladder.
- Nervous system consists of organs like brain and nerves.
- Organ systems cannot function independently.
- Combined action of different organ systems helps to perform various physiological activities.
- The group of any particular kind of organisms in an ecosystem is called population.
- All organisms in an ecosystem constitute a community.

CONCEPTS

- : Different types of tissues act complementarily to perform complex physiological activities in organisms.

LEARNING OBJECTIVES

KNOWLEDGE DOMAIN

- : The pupil acquires knowledge and comprehension about:
 - explains the formation of organ system
 - lists out the organs belonging to each organ system

- identifies the importance of tissues
- differentiates between organs and tissues

PROCESS DOMAIN

: The pupil develops process skills in:

- observes the formation of organ system
- communicates the role of digestive system
- infers the role of organs in proper functioning of body
- classifies the types of organs found in various organ systems

APPLICATION DOMAIN

: The pupil applies knowledge in:

- understands the role of organs in physiological functions
- applies the knowledge of levels of organization in the study of diversity in organisms
- analyzes the peculiarities of different organisms
- gives reason for the complexity of living organisms

ATTITUDINAL DOMAIN

: The pupil develops positive attitude towards:

- develops positive attitude towards good health practices
- shows readiness to exercise daily
- takes initiatives to follow healthy living

Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 St. Joseph College of Higher
 Education for Women,
 Ernakulam



CREATIVITY DOMAIN

- develops curiosity to know more about diversity in organisms

: The pupil creates ideas about :

- designs poster to create awareness on importance of healthy living
- prepares a chart showing levels of organisation
- prepare a model of digestive system

PRE-REQUISITE

The Pupil already knows that human body is made up of different types of tissues.

LEARNING STRATEGIES

Group discussion, demonstration

LEARNING MATERIALS / ICT

Activity No.1 :

- Activity No.2 :
- 1) Reading material on organ system
 - 2) Activity card on organ system
 - 3) Powerpoint slides on organ system

- Activity No.3 :
- 1) Textbook
 - 2) Activity card on levels of organization
 - 3) Powerpoint slides on levels of organization

VALUES

- 1) Self respect
- 2) Concern for fellow being
- 3) Determination for healthy living

EXPECTED PRODUCTS

- 1) Table on organ system and organs belonging to them
- 2) Flowchart on levels of organization

Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 Joseph College of Teacher
 Education for Women,
 Ernakulam



LEARNING ACTIVITIES

Activity No.1 (Introduction)

With Teacher and students conduct a discussion on how cells combine to form tissues, tissues form organ and organs form organ system

RESPONSE / EVALUATION

1) Participation in the activity
 students actively participated in the activity by sharing their ideas on organisation levels during the discussion.

LEARNING ACTIVITIES

POINTS FOR DISCUSSION

- * Cells → Tissues
- * Tissues → Organ
- * Organs → Organ system
- * Importance of organ system

Levels of Organisation (CB)

Teacher consolidates the activity by explaining the importance of organ systems in carrying out physiological functions smoothly.

Teacher divides the class into different groups.

Activity No. 2

With the help of reading material students complete activity card and understand about various organ system in human body.

Organ system

In human body organs combine to form organ system. Excretory system, Circulatory system, Nervous system, and respiratory

RESPONSE/EVALUATION

2) Communication and coordination of ideas

All students responded with great interest and communicated their ideas of levels of organisation.

3) Acquisition of skills

Students acquired skills like initiative, critical thinking and communication.

4) Presentation and performance

Students were full of vigour and remained active throughout discussion. All students responded very well.

1) Participation in the activity

Students were immersed in reading the given reading material on organ system to understand the

LEARNING ACTIVITIES

System are the major systems in our body. Circulatory system is made up of heart and blood vessels. Nose, trachea and lungs are the organs in respiratory system. Excretory system consists of kidney, ureter and urinary bladder. Brain and nerves make up the nervous system.

Read the description and answer the following questions

I Fill in the blanks

- Organs combines to form _____
- _____ and nerves are the parts of nervous system

II Circle the organs belonging to excretory system

kidney, Heart, lungs, Ureter, Urinary bladder

RESPONSE / EVALUATION

content and complete the activity card

2) Communication and coordination of ideas

All students responded actively and communicated well about the parts of organs present in each organ system within groups and completed the activity card on organ system

3) Acquisition of skills

Students acquired skills like observation, understanding and communication

4) Presentation and performance

Students showed great interest in giving responses and all groups performed



Alice Joseph
Principal in Charge
Department of Teacher
Education for Women
Bangalore

LEARNING ACTIVITIES

III Match the following

A	B
Heart, blood vessels	- Nervous system
Brain, nerves	- Respiratory system
Nose, trachea, lungs	- Circulatory system
	- Excretory system

Nervous system (CB)

Respiratory system (CB)

Excretory system (CB)

Circulatory system (CB)

Teacher consolidates the activity by explaining various organ system using powerpoint slides

RESPONSE / EVALUATION

well in the class. The I & III group completed the activity card first. Diya of group III showed great initiativeness to read out the answers. All other groups were also able to find out the correct answers

s) Documentation

A completed document on organsystem were prepared by the student.

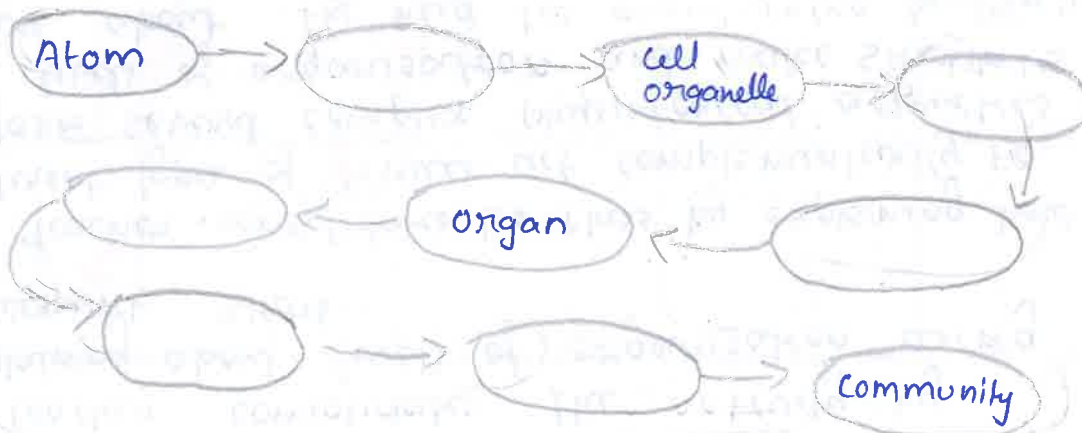
LEARNING ACTIVITIES

Activity No.3

By completing the activity card with the help of textbook students understand about levels of organisation.

Levels of Organisation

I Complete the flowchart using the words given in the box below.



Cell, population, organism, organ system,
Tissue, Molecule

RESPONSE/EVALUATION

1) Participation in the activity
Students actively participated in the activity by completing the activity card on levels of organisation by carefully going through the text book

2) Communication and coordination of ideas

Students shared their ideas about levels of organisation within groups and completed the activity card.

Alice Joseph
Dr. Alice Joseph

Principal in Charge
Joseph College of Teacher Education for women,
Ernakulam

3) Acquisition of skills

Students acquired skills like teamwork, observation and communication

4) Presentation and performance

Students performed very well in the activity. second



LEARNING ACTIVITIES

Levels of Organisation (CB)

Atom → Molecule → cell organelle → cell → Tissue → organ → organ system → organism → population → community } (CB)

Teacher consolidates the activity by explaining about levels of organisation using powerpoint slides.

Teacher consolidates the class by explaining how different types of tissues act complementarily to perform several complex physiological activities and levels of organisation and make students aware about the need for maintaining healthy life

FOLLOW UP ACTIVITIES

- 1) Prepare a table showing organ systems and organs belonging to them
- 2) Prepare a flowchart on levels of organisation

REFLECTION

My findings and assessment : The class went quite well. Students responded very well during discussion. Blackboard work was good. Some of the powerpoint slides were bit confusing for the students.

Remedial activities : I will make powerpoint slides more simple and effective.

RESPONSE/EVALUATION

group members completed the activity card first. IV and Vth group had some doubts regarding the completion the activity card. With proper assistance they also completed the activity card. All groups read out the correct answers

5) Documentation

A completed document on levels of organisation were prepared by the students

All students very well prepared the table on organsystem and flowchart on levels of organisation

Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Bnakulam



Dr. Alice Joseph
18/8/22

Dr. Alice Joseph
18/8/22

Supervision Diary cum Reflective Journal

II Semester

Name of the Student: Meera Susan kurian

Subject : Biology

Name of the School : St. Joseph's CGHSS
Tripunithura

Unit : Cell clusters

Sl. No:	Date	Content Outline	Learning Strategy adopted	Remarks of the Supervising/ Mentor Teacher
1.	11/7/2022	* Cell and tissues - Cells - Types of cells - Tissues	Group discussion, Demonstration	<p>Very good Rich 10/8/22</p> <p><u>Alice Joseph</u> Dr. Alice Joseph Principal in Charge St. Joseph College of Teacher Education for Women, Ernakulam</p>
2.	18/7/2022	* cell differentiation * stem cells	Group discussion, Demonstration	
3.	22/7/2022	* Animal tissues - Epithelial tissue - Nervous tissue - Muscular tissue - Connective tissue	Group discussion, Demonstration	
4.	29/7/2022	* Plant tissues - Meristematic tissues - Parenchyma - collenchyma - sclerenchyma - vascular tissues	Group discussion, Demonstration	
5.	11/8/2022	* levels of organization	Group discussion, demonstration	



MICROTEACHING LESSON PLAN No. 2

Name of the student teacher : Meera susan kurian	Date : 5/1/2022
Subject : Biology	Duration : 6 minutes
Topic : Blood groups	Strength : 4
Skill : Skill of questioning	

Goodmorning students, today we are going to learn about the topic blood groups

- Do you all know your blood group? (Directing)
- Which all are your blood groups? (clarity)
- Who discovered blood group? (specificity)
- Which are the major types of blood groups? (Relevancy)

- Which is the most common blood group? (specificity)
- Which is the rarest blood group? (concrete)
- What is the basis of classification of blood groups? (Directing)
- What are antigens? (prompting)
- What is meant by antibody? (coherence)
- Where are these antigens and antibodies found? (specificity)
- Which are the antigens that determines a blood group? (clarity)
- Which are the antibodies found in blood? (concrete)
- Which are the antigens present in blood group A? (coherence)
- Which are the antibodies present in blood group A? (Pacing)
- What about the antigens present in blood group B? (specificity)
- Which are the antibodies found in blood group B? (coherence)
- What about the antigens present in blood group AB? (clarity)
- Which are the antibodies found in blood group AB? (Pacing)
- Which are the antigens in O blood group? (specificity)
- What about antibodies found in O blood group? (clarity)
- What does the +ve & -ve signs in your blood group indicates? (Directing)



Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 St. Joseph College of Teacher
 Education for Women,
 Ernakulam

- Who discovered RH factor? (concise)
- What does the term blood transfusion means? (Directing)
- Does anyone of you donated your blood? (specificity)
- Can a person with A blood group receives blood from person carrying B blood group? (Relevancy)
- why is it not possible to receive different blood group? (Directing)
- What happens if a person receives blood different from his own blood group? (Relevancy)
- Which are the blood groups from which A group can accept blood? (prompting)
- Which are the blood groups to which A can donate blood? (coherence)
- What blood types can AB accept? (clarity)
- Which are the blood groups to which AB can donate blood? (coherence)
- Which are the blood groups B can accept blood from? (clarity)
- Which are the blood groups to which B can donate blood? (coherence)

- What blood types can O group accept? (prompting)
- Which are the blood groups to which O can donate blood? (clarity)
- Which blood group can donate blood to all other groups? (Relevancy)
- How is it possible for O blood group to donate blood to all other groups? (clarity)
- Which blood group can accept blood from all other groups? (specificity)
- What are the factors other than blood group matching taken to consideration for blood transfusion? (Directing)
- Who all are at risk of donating blood? (concrete)
- Where is the blood collected from donor stored and preserved? (specificity)
- What temperature is blood stored at blood banks? (clarity)
- What is the importance of blood donation? (prompting)
- Does donating blood cause you any health problem? (Relevancy)
- What are the benefits of blood donation? (clarity) (pausing)

Hope you all understood the topic, Thank you

Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 St. Joseph College of Teacher
 Education for Women,
 Ernakulam

Dmc
 14/2/2022



OBSERVATION SCHEDULE FOR THE
SKILL OF QUESTIONING (FLUENCY)

Sl. No.	Component skills	Frequency in minutes													
		Teaching						Total	Re-teaching						Total
		1	2	3	4	5	6		1	2	3	4	5	6	
1	Clarity							7							9
2	Concise							4							8
3	Relevancy							5							9
4	Specificity							5							9
5	Pacing							3							9
6	Pausing							4							9
7	Coherence							4							6
8	Directing							6							7
9	Prompting							3							8

Ami



Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

REFLECTION - SKILL OF QUESTIONING

Description of event

The skill of questioning was practised on 5/1/2022. The topic I choose for this skill was 'Blood groups'. The aim of this practice was to develop the questioning ability i.e., to ask questions with clarity, relevancy, specificity etc. During the teach sessions there was many problems like loss of continuity, difficulty in adjusting pace and also questions were not sufficient for the completion of allotted time. More questions were added during reteach.

Feelings and thoughts

Initially I was very much tensed as I was not sure that I could remember all questions. Also I was doubtful that the questions I prepared was sufficient for the time allotted. During teach session I understood the things to be improved and was able to improve it during reteach session.

Evaluation

My peer group evaluated my questioning



Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

Session. They gave me many points to improve. They told me to take care of the pace of asking questions. They also suggested to add more questions so that time can be managed.

Analysis

When the entire session was analysed, there were some areas to improve. The most important was to focus on continuity as there were many questions, some were forgotten and it caused loss of continuity. Also in order to reach the allotted time more questions were needed to be added. By correcting these mistakes, I managed to improve and complete the teach session much better than the teach session.

Action plan

It is an important skill in teaching - learning process. By asking questions we can actually make the students to participate more actively throughout the class.

By practicing this skill I got idea about



Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

the areas to be improved. I will try my level best to master this skill

Name and signature of the student teacher

Meera Susan kulan

~~Meera~~

Date : 5/01/2022

Dr
14/2/2022



Alice Jose
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

MICROTEACHING - LINK PRACTICE LESSON PLAN

Name of student teacher	: Meera Susan Kurian	Date	: 12/1/2022
Name of Institution	: St. Joseph College of teacher education for women, Ernakulam	Duration	: 20 minutes
Subject	: Biology	Strength	: 17
Topic	: Plant tissues		
Skills	: Stimulus variation Blackboard writing Questioning		



Alice Joseph
Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

Teacher activity	Pupil activity	Component skills		
Goodmorning students, today we are going to study about PLANT TISSUES.	Good morning teacher	Stimulus variation	Questioning	Chalk/Blackboard writing
		voice modulation Verbal focusing	-	PLANT TISSUES ① (at the top centre of the black board)
Do you know what are cells?	Yes, They are the basic unit of life	voice modulation Teacher-class interaction	Directing	-
Yes, cell is the basic unit of life. The what is tissue?	Group of cells	Body movements Teacher-class interaction Verbal focusing	-	-
Yes, tissues are group of cells. Now lets study more about plant tissues	-	Verbal-gestural focusing voice modulation	-	-

Teacher activity	Pupil activity	Component skills	
<p>On the basis of ability of cell to divide, plant tissues are classified into two types</p>	-	Stimulus variation	Questioning Chalk/Blackboard writing
<p>Do you know which are the two types of plant tissue?</p>	Meristematic and Permanent tissue	Verbal-gestural focusing Body movements Teacher-class interaction Voice modulation Verbal-gestural focusing	clarity
<p>Yes, meristematic and permanent tissue are the two types of plant tissues. Now let's discuss more about meristematic tissue</p>	-	Verbal focusing Body movements	Meristematic tissue (2) (Below (1) to the extreme left)
<p>Can anyone tell me what are meristematic tissue?</p>	Group of young and actively dividing cells	Teacher-pupil interaction Verbal-gestural focusing	Specificity <u>Alice Joseph</u> Dr. Alice Joseph Principal in Charge St. Joseph College of Teacher Education for Women, Ernakulam



Teacher activity	Pupil activity	Component Skills		
<p>Correct, they are actively dividing cells with thin cell wall and are responsible for the growth of plants</p>	<p>—</p>	<p>Stimulus variation</p>	<p>Questioning</p>	<p>Chalk/Blackboard writing</p>
<p>Meristematic tissue is further classified into three types based on location at which they are seen on plants. They are apical meristem, lateral meristem and intercalary meristem</p>	<p>—</p>	<p>Verbal-gestural focusing</p>	<p>—</p>	<p>—</p>
<p>First lets study about apical meristem. Apical meristems are seen on the tip of root and shoot of plants</p>	<p>—</p>	<p>Verbal focusing</p>	<p>—</p>	<p>Apical meristem ③ (Below ② to extreme left)</p>

Teacher activity	Pupil activity	Component skills		
<p>Do you know the function of apical meristem?</p> <p>Yes, correct apical meristem helps to grow in length. Root apex and shoot apex are examples of apical meristem</p>	<p>They help to increase the height of plant.</p>	Stimulus variation	Questioning	Chalk/Blackboard writing
<p>Next type of meristem is lateral meristem. They help to increase the thickness or width of the plant. Lateral meristem is absent in monocot plants. Cork cambium and vascular cambium are examples of lateral meristem</p>	-	Verbal-gestural focusing	-	Lateral meristem ④ (Below ② next to ③)
<p>The last type of meristem is intercalary meristem. They are found in internodes and help in internodal elongation</p>	-	Voice modulation	-	Intercalary meristem ⑤
		Verbal-gestural focusing	-	(below ② next to ④)



Alice Joseph
 Dr. Alice Joseph
 Principal in Charge
 St. Joseph College of Teacher
 Education for Women,
 Ernakulam

Teacher activity	Pupil activity	Component skills		
<p>Next lets see permanent tissues. Do you know what is permanent tissue?</p> <p>Yes correct, They are mature cells</p>	<p>They are completely grown mature cells</p>	<p>Stimulus Variation</p> <p>Verbal focusing</p> <p>Teacher-class interaction</p> <p>Body movements</p>	<p>Questioning</p> <p>Directing</p>	<p>chalk/Blackboard writing</p> <p>Permanent tissue (6) (Below (1) to extreme right)</p>
<p>The permanent tissue is further classified into two. Lets see more about simple permanent tissue.</p>	<p>-</p>	<p>voice modulation</p> <p>Verbal-gestural focusing</p> <p>Body movements</p>	<p>-</p>	<p>Simple (7) (Below (6) to the left)</p>
<p>Simple tissue are tissues that are made of only one type of cell. There are three types of simple tissue. The first one is parenchyma</p>	<p>-</p>	<p>voice modulation</p> <p>Verbal-gestural focusing</p>	<p>-</p>	<p>Parenchyma (8) (Below (7) to the left)</p>
<p>Do you know the characters of a parenchyma cell?</p> <p>Yes, They are thin walled cells</p>	<p>Thin walled cells made of cellulose</p>	<p>Teacher-class interaction</p> <p>Voice modulation</p>	<p>Specificity</p>	<p>-</p>

Teacher activity	Pupil activity	Component skills		
<p>Parenchyma are major part of ground tissue. They are isodiametric or polyhedral in shape. They are either closely packed or with small intercellular space</p>	-	Stimulus variation	Questioning	Chalk/Blackboard writing
<p>Parenchyma cells which have chloroplast in it is known as chlorenchyma and which has air in it is called aerenchyma. Storage, photosynthesis, transportation and gaseous exchange are the major functions</p>	-	Voice modulation	-	Diagram of parenchyma (9) (Below (8))
<p>Next one is collenchyma. They are oval or polygonal cells with localised thickening</p>	-	Verbal-gestural focusing	-	collenchyma (10) (Below (7) next to (8))



Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

Teacher activity	Pupil activity	Component skills		
<p>Do you know the main function of collenchyma?</p> <p>Yes correct, collenchyma are living mechanical tissue and also they provide flexibility</p>	<p>Provide mechanical support to plants</p>	<p>stimulus variation</p> <p>Teacher-class interaction</p> <p>Body movements</p> <p>Verbal focusing</p>	<p>Questioning</p> <p>clarity</p>	<p>chalk/blackboard writing</p> <p>Diagram of collenchyma (11) (below (10))</p>
<p>Next is Sclerenchyma</p> <p>They are dead cells with lignin deposits in inner wall. They don't possess intercellular gaps. They are of two types - fibre and sclerides</p>	<p>-</p>	<p>Verbal focusing</p> <p>Voice modulation</p>	<p>-</p>	<p>Sclerenchyma (12) (below (7) next to (10))</p>
<p>Can you tell me the function of sclerenchyma?</p> <p>Yes, they provide mechanical support</p>	<p>Provide mechanical support</p>	<p>Teacher-class interaction</p> <p>Verbal focusing</p>	<p>specificity</p>	<p>Diagram of sclerenchyma (13) (below (12))</p>

Teacher activity	Pupil activity	Component skills		
<p>Next lets move on to complex permanent tissue. Complex tissue is made of more than one type of cell. They include xylem and phloem</p>	-	stimulus variation	Questioning	chalk/blackboard writing
<p>First lets discuss on xylem. Do you know the function of xylem? Yes correct, xylem is a vascular tissue and it helps in conduction of water</p>	conduction of water	Verbal focusing Teacher-class interaction Body movements	Specificity	Complex (14) (below 6 to extreme right)
<p>Xylem is made of four types of cells They are tracheids, vessels, xylem parenchyma and xylem sclerenchyma. Of these tracheids and vessels are the major water conducting tissue</p>	-	Verbal-gestural focusing Body movements	-	Tracheid (16) (below 15) Vessels (17) (below 16) xylem parenchyma (18) (below 17) xylem fibre (19) (below 18)



Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

Teacher activity	Pupil activity	Component Skills		
		Stimulus variation	Questioning	Chalk/blackboard writing
Both tracheids and vessels form tube like structure. Vessels show end to end connection. Both have lignin deposition. Vessels are only found in angiosperms	-	Voice modulation	-	-
Xylem parenchyma shows lateral conduction. Xylem fibre provides mechanical support	-	Voice modulation	-	-
Next is phloem. Do you know the function of phloem?	conduction of food	Teacher-pupil interaction	Specificity	Phloem (20) (below (14) to extreme left)
Yes correct conduction of food		Verbal focusing		

Teacher activity

The phloem has four components. They are phloem fibres, sieve tubes, phloem parenchyma and companion cells.

Pupil activity



Component skills

Stimulus variation

Questioning

Chalk/Blackboard writing

Voice modulation

Verbal focusing

Body movement

- Sieve tubes (21)
- (below 20)
- Companion cells (22)
- (below 21)
- phloem Parenchyma (23)
- (below 22)
- phloem fiber (24)
- (below 23)

That is all about plant tissues. I think the topic is clear to you, Thank you

Thank you teacher

Pausing

Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher Education for Women,
Ernakulam



Am
14/2/2022

Concept of Blackboard writing

PLANT TISSUES ①

Meristematic tissue ②

Permanent tissue ⑥

Apical meristem ③

Lateral meristem ④

Intercalary meristem ⑤

Simple ⑦

Complex ⑭

Parenchyma ⑧

Collenchyma ⑩

Sclerenchyma ⑫

Xylem ⑮

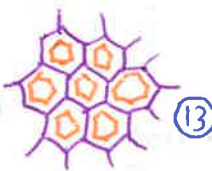
Phloem ⑳



⑨



⑪



⑬

• Tracheids ⑯

• Vessels ⑰

• Xylem

• Parenchyma ⑱

• Xylem

fibres ⑲

• Sieve tubes ㉑

• Companion cells ㉒

• Phloem

Parenchyma ㉓

• Phloem fibres ㉔

Dr. Alice Joseph
14/2/2022



Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

TEACHING MANUAL No. 9

Name of the teacher : Meera Susan Kurian

Standard : IX

Name of the school : St. Josephs CGHSS, Tripunithura

Date : 15/11/22

Name of the subject : Biology

Duration : 40 minutes

Name of the unit : Excretion to maintain homeostasis

Period : 6th

Name of the topic : Liver

Strength : 31/36

CONTENT ANALYSIS

TERMS : Liver, toxic substance, Ammonia, metabolism, urea, Aminoacids, nitrogenous compounds, carbondioxide, Enzymes, Homeostasis, regeneration, alcohol, proteins

FACTS : - Liver is the largest gland in the body

- Liver converts the toxic substances into harmless substances

- proteins in the body is broken down into aminoacids

- Aminoacids participate in metabolic activities of body to produce toxic substances called ammonia

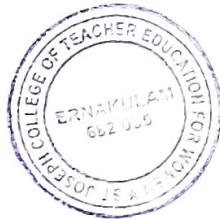
- Ammonia reaches the liver through blood

- Ammonia combines with CO_2 and water in the presence of enzymes to form urea

- Liver cells are destroyed by constant contact with poisonous substances

- Alcohol and food containing artificial ingredients leads to the destruction of liver cells

- Excessive consumption of alcohol reduces the regenerative power of



Alice Joseph
Principal
St. Joseph's College of Teacher Education, Ernakulam

liver

CONCEPT : Liver is the major organ involved in excretion and convert toxic substances into harmless substances

LEARNING OBJECTIVES

KNOWLEDGE : The pupil acquires knowledge and comprehension about

DOMAIN

- lists out various toxic substances produced in body
- identifies the organ for conversion of ammonia-
- explains the process of formation of ammonia
- discusses about the regeneration ability of liver

PROCESS
DOMAIN

: The pupil develops process skills in

- communicates the role of regeneration of liver
- infers the role of liver in detoxification in body
- classifies the various toxic substances produced in body.
- interprets the role of urea synthesis

APPLICATION
DOMAIN

: The pupil applies knowledge in

- understands the synthesis of urea
- gives reason for the destruction of liver cells
- critically thinks about the role of liver in excretion
- applies the knowledge of excretion of study about waste processing in liver

ATTITUDINAL
DOMAIN

: The pupil develops positive attitude towards

- takes decision to promote personal hygiene

- curious to know more about waste processing in liver
- develops interest in studying about liver
- takes decision to avoid junk food

CREATIVITY
DOMAIN

: The pupil creates ideas about:

- designs poster against alcohol consumption
- prepares a note on urea synthesis
- creates placard on the benefit of exercise
- designs chart on the importance of healthy liver

PRE REQUISITE

The pupil already knows that the liver is the largest organ that help in excretion

LEARNING STRATEGIES

Group discussion, Demonstration

LEARNING MATERIALS / ICT



- Activity No.1 : powerpoint slide on Liver
- Activity No.2 : 1) Textbook
2) Activity card on ammonia formation
3) powerpoint slide on ammonia formation
- Activity No.3 : 1) Textbook
2) Activity card on urea synthesis
3) video clipping on urea synthesis

Alice Joseph
Principal in Charge
St. Joseph College of Teacher
Education for Women,
Ernakulam

VALUES

- 1) Concern for our own body
- 2) Respect for fellow beings
- 3) Self respect

EXPECTED PRODUCTS

- 1) short note on liver
- 2) Flowchart on formation of ammonia and urea

LEARNING ACTIVITIES

Activity No. 1 (Introduction)

Teacher shows a powerpoint slide of liver and conducts a discussion based on it

POINTS FOR DISCUSSION
* Excretory organ
* Liver
* Functions of liver

Liver (CB)

Teacher consolidates the activity by explaining about liver and its functions

Teacher divides the class into different groups

RESPONSE / EVALUATION

- 1) Participation in the activity
students actively participated in the discussion after watching the powerpoint slides and were eager to know more about liver and its functions.
- 2) Communication and coordination of ideas
students communicate among themselves for active discussion
- 3) Acquisition of skills
students acquired skills like observation and rational thinking
- 4) Presentation and performance
students actively expressed their point of view

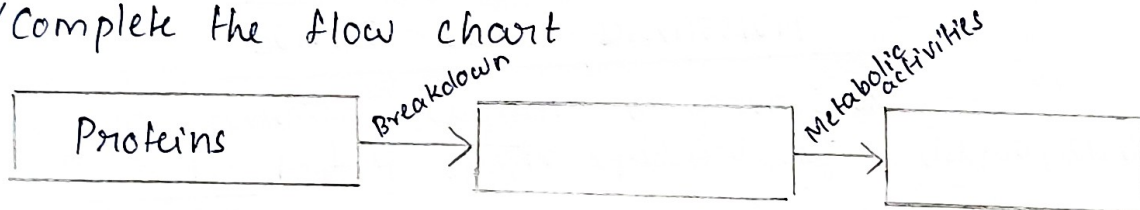
LEARNING ACTIVITIES

Activity No. 2

With the help of textbook students complete the activity card and understand about ammonia formation

Ammonia formation

Complete the flow chart



(Hints :- Amino acids, Nitrogenous byproducts, Ammonia)

Proteins (CB)

Amino acids (CB)

Nitrogenous byproduct-Ammonia (CB)

Teacher consolidates the activity by explaining ammonia formation with the help of power point presentation

Activity No. 3

With the help of textbook students complete the activity card on urea synthesis and understand about it

RESPONSE / EVALUATION

- 1) Participation in the activity
students actively participated in the activity on parts involved in the ammonia formation
- 2) Communication and coordination of ideas
students communicated among groups and found solutions to questions
- 3) Acquisition of skills
students acquired skills like observation and communication
- 4) Presentation and performance
students discussed the activity card among the groups. Group I completed the activity card first. Anviya read out answers with great confidence
- 5) Documentation
A completed document on ammonia formation were prepared by the students

Alice Joseph

- 1) Participation in the activity
students actively participated in the activity on urea synthesis

LEARNING ACTIVITIES

about the regeneration capacity of liver cells using a video

Teacher consolidates the class by explaining about liver as a waste processing unit and remind the students that students the importance of following a healthy life style.

FOLLOW UP ACTIVITIES

- 1) Write a short note on liver
- 2) prepare a flowchart on formation of ammonia and urea

RESPONSE / EVALUATION

- 3) Acquisition of skills
students develop skills in observation, communication and critical thinking
- 4) Presentation and performance
students expressed their ideas about liver cells and their regeneration capacity

All the students prepared flowchart on ammonia and urea formation and note on liver

REFLECTION

My findings and assessment : I was confident and have given detailed explanation of the topic. The activity could have little more interesting

Remedial activities : I will try to make activity more interesting and engaging

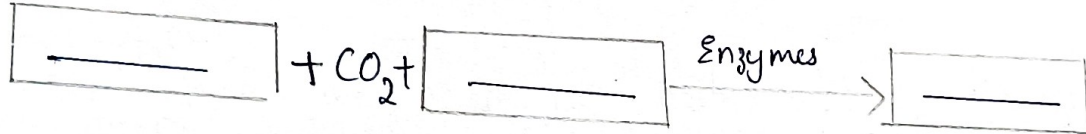
Roh
15/11/22

Shruti
15/11/22

LEARNING ACTIVITIES

Urea Synthesis

Complete the flow chart



Ammonia (CB)

Enzymes (CB)

Urea (CB)

Teacher consolidates the activity by explaining urea synthesis with the help of a video clipping

Activity No.4

With the help of video clipping on regeneration of liver cells teacher conducts a discussion

POINTS FOR DISCUSSION

- * Liver cells
- * Regeneration
- * Toxic substances and liver

Regeneration (CB)

Teacher consolidates the discussion by explaining

RESPONSE / EVALUATION

2) Communication and coordination of ideas

Students communicated among group and finds answer for the questions

3) Acquisition of skills

Students acquired skills like observation, understanding and communication

4) Presentation and performance

Students showed great interest interest to read out the answers. First group members were the first to complete the activity card.

5) Documentation

A completed document on urea synthesis were prepared by the students.

1) Participation in the activity

Students actively participated in the discussion on regeneration of liver cells and expressed their ideas

2) Communication and coordination of ideas

Most of the students contributed their view points and successfully completed the discussion

Alice Joseph

Dr. Alice Joseph
Principal in Charge
Joseph College of Teacher
Education for Women,
Ernakulam



ST. JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN ERNAKULAM,

SUPERVISION DIARY

2021-2023

SEMESTER: I/II/III/IV

Name of the Student Teacher Meera Susan Kurian Subject Biology

Name of the School St. Josephs CGHSS Tripunithura Unit 1: Breathing for energy
2: Excretion to maintain homeostasis

Sl No.	Date	Content Outline	Learning Strategy adopted	Remarks of the Supervising Teacher
1	8/11/22	vital capacity		Very Good
2	14/11/22	Respiration in other organisms		
3	14/11/22	Respiration in plants		
4	15/11/22	Excretion to maintain balance		
5	15/11/22	Liver		



Alice Joseph

Dr. Alice Joseph
Principal in Charge
St. Joseph College of Teacher Education for Women, Ernakulam

Teacher-in-charge: Remadevi K. S.

Signature & Date

Ruch
17/11/22



ST. JOSEPH COLLEGE OF TEACHER EDUCATION FOR WOMEN ENNAKULAM, REFLECTIVE JOURNAL
2021-2023
SEMESTER: I/II/III/IV

Name of the Event: Internship programme
 Name of the Student Teacher: Meera Susan Kuvan
 Optional Subject: Natural Science Date: 15/11/22

Levels of reflection	JOURNALENTRY
Description <i>Describe what happened?</i>	The classes were taken for the 9th standard students in the topics vital capacity, respiration in other organisms, respiration in plants, excretion to maintain balance and liver. The classes went very well
Feelings <i>What were your thoughts & feelings?</i>	I prepared well for the class. I become more confident and maintained my energy levels. I was able to clarify the doubt of my students. The positive responses from the students increased my self confidence
Evaluation <i>What was good & bad about the experience?</i>	The classes were taken well. The learning materials were properly given. I improved my language fluency.
Analysis <i>What sense can you make of the situation?</i>	The overall performance and teaching learning experiences in the class was really good. The level of achievement of student in biology subject also improved. The co-operation of students in completing the learning activities were appreciable
Conclusion <i>What else could you have done?</i>	Most of the students in the class were responded well. I want to provide some time for recalling what was learned and to revise the portions taken in the present class.
Action Plan <i>What is your plan for the future?</i>	I will encourage my students for active learning and sustain their performance in the class. I will sustain my confidence level also

Teacher-in-charge: Divina Jacob

Signature & Date: Meera Susan Kuvan
9/2/2023