



**ST. THOMAS COLLEGE  
OF TEACHER EDUCATION, PALA  
ESTD. 1957**

## **2.4.5 ADEQUATE SKILLS ARE DEVELOPED IN STUDENTS FOR EFFECTIVE USE OF ICT FOR THE TEACHING-LEARNING PROCESS**

### **A) 2.4.5 DOCUMENTARY EVIDENCE IN SUPPORT OF EACH RESPONSE SELECTED**

<b>CONTENT</b>	<b>PAGE NO.</b>
<b>1. Preparation of lesson plans</b>	<b>1-34</b>
<b>2. Developing assessment tools for both online and offline learning</b>	<b>35-50</b>
<b>3. Effective use of social media/learning apps/adaptive devices for learning</b>	<b>51-54</b>
<b>4. Identifying and selecting/ developing online learning resources</b>	<b>55-62</b>
<b>5. Evolving learning sequences (learning activities) for online as well as face-to-face situations</b>	<b>63-65</b>

## EFFECTIVE USE OF ICT FOR TEACHING-LEARNING PROCESS

### 1. PREPARATION OF LESSON PLANS

- English Education

<u>Internship Teaching Manual - 42</u>	
Name of the teacher: <u>Early S Thomas</u>	Subject: <u>English</u>
Name of the school: <u>Mahatma Gandhi Govt H S Pala</u>	Unit V: <u>Share and Care</u>
Standard: <u>VIII</u>	Lesson: <u>The school for sympathy by L.V Lucas</u>
Duration: <u>35 minutes</u>	Paragraphs: <u>introduction and paragraph 1</u>
Date: <u>13-01-23</u>	

Context Analysis:

Theme: Human values

Subthemes: i) Empathy ii) friendship iii) Need of love and care to the differently abled iv) understanding and co-operation

Ideational Content

The school for sympathy by L.V Lucas depicts the need for empathy towards the differently abled. In this story he talks about Miss Beam's school where the children have to undertake an exercise of going through the blind day lame day dumb day and the deaf day to get first hand experiences about the life of

Scanned with OKEN Scan

Physically challenged people in the first paragraph the narrator introduces us to Miss Beam's school and he describes how an eight year old boy helps a girl of twelve with a blindness on her eyes.

Linguistic content

Vocabulary items

- 1) Sympathy - a feeling of sincere concern for someone who is experiencing something painful. / sim'pəti/
- 2) acquire - /ə'kwɪə/ - to get or obtain something
- 3) flowerbed - /'flaʊəbɛd/ - an area of ground where flowers are planted.

grammar items prepositions - A preposition is a short word that is used in sentences to show the relationship nouns, pronouns or phrases have with other parts within the respective sentences.  
eg: when I arrived at school, I saw a girl of about twelve

Synthetic content: Write a paragraph about your school.

Learning Outcomes

The learners will be able to

- i) listen with comprehension.
- ii) understand the major events of the story.
- iii) develop L2/L3 skills

139

Scanned with OKEN Scan



Prof. Dr. BEENUMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- u) Read aloud with proper stress, intonation and accent
- v) understand the proper usage of prepositions
- w) write a paragraph about one's own school

### 3 Prior requisites

The learner

- i) knows to read, write and speak English
- ii) has a basic understanding of grammar terms
- iii) is familiar with the genre of short stories

### 4 Learning Strategies

video presentation, discussion, lead reading, group activity

### 5 Learning Aids

youtube video, ppt, dictionary, images

### 6 References

Teacher's text, Coursebook, dictionary, online resources

Scanned with OKEN Scanner

Process	Response
<p><u>Entry activity / Introduction</u></p> <p>The teacher builds rapport with the students. Then the teacher shows a <sup>youtube</sup> video. The video presents three chicks eating grains while a blind chick tries hard to get grains. Seeing this the mother hen asks what can they do to help that poor thing and one of the chick says that it will eat only after the blind chick eats. The teacher then asks</p> <ul style="list-style-type: none"> <li>i) What will you do if you are the chicks?</li> <li>ii) What is the message of this video?</li> </ul> <p>Then the teacher consolidates their responses and introduces the new lesson 'The school for sympathy' by E.V. Lucas. The teacher asks about the meaning of the title and about response from students. The teacher then explains the theme and biography of the author, with the help of ppt.</p> <div style="border: 1px solid black; padding: 5px;"> <p>The school for sympathy is a short story by E.V. Lucas which depicts the need for sympathy towards differently abled. A lady named Mrs. Beams owns the school and students are taught to have concern for people with disabilities. Friendship, sympathy, co-operation, love care etc. are the major</p> </div>	<p>Students watched the video eagerly and answered to the questions.</p> <p>no response some said that they will help.</p> <p>students said "the need of sympathy and care"</p> <p>some students read the meaning of the word sympathy.</p>

Scanned with OKEN Scanner



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

... will ...

## Leading the Story

### a) Lead reading by the teacher

The teacher reads about the story and asks leading questions

- 1) Who is the narrator of the story?
- 2) Who was the manager of the school?

### b) Lead reading by the students

The teacher asks the learners to read the paragraphs silently and underline new words. The teacher asks a few pre-reading questions

- 1) How old was the girl whose eyes were covered?
- 2) What was the gift the narrator saw there?

### c) Collaborative reading

The teacher asks students to sit in groups and discuss the of the story and also the meaning of the new words. The students refer dictionary to find out the meaning of the new words. The teacher explains the meanings of words using different techniques. Images of flowerbed are shown for better understanding.

### d) Scaffolding reading

1) Have you visited any other school? What all things did you find attractive in that school?

2) Why, do you think, the writer wanted to visit Miss Beam's school?

### e) Lead reading by the learners

The teacher asks a few students to read the paragraph aloud.

### Consolidation

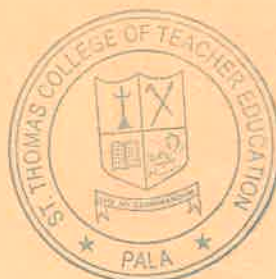
Today we saw the introductory paragraph of the story 'The School for Sympathy' by E.V. Lucas. The narrator introduces us to the school run by Miss Beam. We also learned about prepositions.

themes

students asked about the meaning of words like acquire, describe, flowerbed, etc. They referred dictionary and found out the answers.

many of them talked about neighbouring schools that they have visited.

three students read the paragraph aloud and necessary corrections were given.





Writing Activity

a) Individual writing : The teacher asks students to write a paragraph about the school.

b) group writing : The teacher asks the students to discuss in groups and edit their writings, modify it further

c) Editing : The teacher asks students to exchange their writings. The teacher guides them in editing with respect to syntax, capitalization, tense.

Presentation of teacher's version

My school

I am studying in MGSNSS Pala. The school is named after Mahatma Gandhi. Govt U.S.S Pala. The school gives equal importance to academics, art and sports. I love my school and my teachers.

Follow up Activity : Write a short poem on your school

Self reflections : Today the students were very active and co-operative. They answered all the questions and wrote about their school. They shared their thoughts and feelings.

most of them write a paragraph about their school

students helped each other

students edited their works with the help of the teacher

students wrote it down

Answer



Prof. Dr. BEENAUMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## ● Mathematics Education

Name of the teacher: Riya Rose Johns  
Name of the School: St Thomas HS Pala  
Class: ix  
Division: B  
Strength: 13

Subject: Mathematics  
Unit: Prisms  
Topic: Prisms  
Date: 22.06.2022  
Duration: 35 minutes

- 5.11
1. To familiarize the concept of solids
  2. To develop the concept of prisms
  3. To define the base, lateral face of the prisms
  4. To construct a prism using geogebra

Solids, Prisms, lateral faces of prisms, 3D shapes.

1. A prism has two polygonal base
2. Prism is solid.
3. All the lateral faces of prism is rectangle.

- 9.11
1. Solids - Shapes that have 3 dimensional - height, length and breadth.

Process

Step 1 - Shows the papercuts of 2 dimensional figures such as triangle, square, pentagon, hexagon etc to recall the concept of 2D shapes.

Step 2 - Shows the models of solids like rectangular prisms, triangular prism and square prism and use the method of comparison to develop the concept of 3D shapes.

2. Prisms - A solid with identical polygonal base and rectangular lateral faces.

Process

Shows models of different prisms such as square prism and triangular prism and recording the common features of the solids.

3. Lateral faces - The rectangle in a prism are called its lateral face.

Learning Outcomes

1. The pupils develop competency in acquiring knowledge of the above terms, fact and concepts
2. The pupils develop competency in process of developing the above concepts.
3. The pupils develop competency in applying above process in unfamiliar situations.



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL

ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

4. The Pupils develop Creativity in developing new solids.

Brain Storming, heuristic method, individual activity

Surface, Polygon, 2D shapes

Models of different types of prisms

Paper cutouts of 2 dimensional shapes

PPT - To show the real life examples of Prism and definitions

Geogebra :- Construction of prism

811

Process/Activity	Response
<p><u>Activity 1</u> After a small interaction with students, teacher asks the students to give some examples of geometrical shapes in mathematics.</p> <p style="text-align: center;"><u>Consolidation</u> Triangle, square, Hexagon, Pentagon, Octagon, Rectangle</p>	

Activity 2

Teacher asks the students to identify the shapes of the paper cutouts and find its properties



(a)



(b)



(c)



(d)



(e)

811

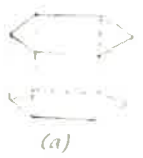



<p style="text-align: center;"><u>Consolidation</u></p> <p>(a) - Rectangle, (b) - Square, (c) - Triangle, (d) - Pentagon (e) - Hexagon</p> <p>They are polygons They have 2 dimensions They have only length and breadth. They are closed figure.</p>
---

Activity 3


Teacher shows some models of triangular prism, square prism and rectangular prism and asks them to identify its common name and




Process/Activity	Response
<p>Why they called?</p> <p><u>Consolidation</u></p> <p>Solids or 3-dimensional shapes Because they have thickness Solids have height, length and breadth</p> <p><u>Activity 4</u></p> <p>Teacher shows some models of square prism and triangular prism and asks them to identify their common features and identify their base and name the prism with its base.</p> <p><u>Consolidation</u></p> <p><u>Common features</u></p> <p>The surface of both sides are made up of two identical polygons and other surfaces are rectangles of the same height.</p> <p>The two identical polygons are opposites to each other</p>	

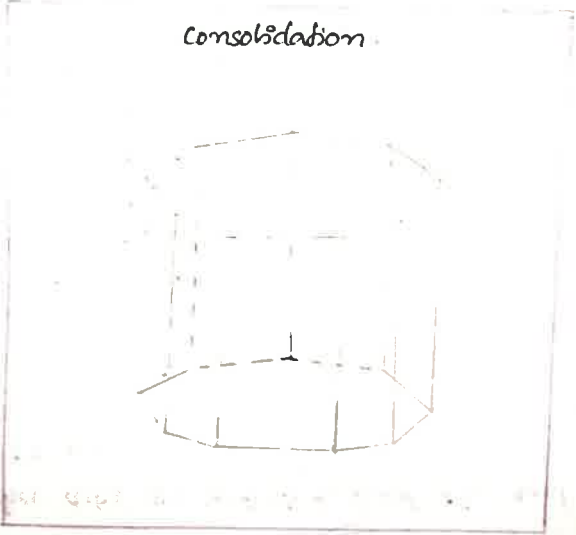

<p>Prisms - a solid with identical polygonal base and rectangular faces</p> <p>Base is square                      Base is triangle Square prism                      Triangular prism</p>	
<p><u>Activity 5</u></p> <p>Teacher gives a worksheet to each bond and asks them to identify prisms from the following figures and write their names.</p> <div style="border: 1px solid black; padding: 10px; display: flex; justify-content: space-around; align-items: center;">     </div>	
<p><u>Consolidation</u></p> <p>(a) and (d) are prisms (a) - Hexagonal prism, (d) - Heptagonal prism.</p>	



  
 Prof. Dr. BENNAMA MATHEW  
 PRINCIPAL  
 ST. THOMAS COLLEGE OF  
 TEACHER EDUCATION  
 PALA



Process / Activity	Response
<p><u>Activity 6</u></p> <p>Teacher construct a pentagonal prism using geogebra and explain the steps for the construction of prism.</p> <p>Consolidation.</p> <p>Take the application of 'Geogebra'            choose the 'tools' option and select 'more'.            select 'polygon' option and mention the number of Vertices            select 'x Root to Prism' and mention altitude.</p> 	

<p><u>Application Activity</u></p> <p>1. Teacher asks to the students to construct a heptagonal prism.</p> <p>Consolidation.</p> 	
--	---



Process / Activity	Response
<p>Teacher asks the students to find the real life examples of prisms</p> <p style="text-align: center;"><u>Consolidation</u></p> <ol style="list-style-type: none"><li>1. Rubik's cube</li><li>2. Tents</li><li>3. Giftboxes</li><li>4. Matchbox</li><li>5. Ice cube</li><li>6. Dice</li></ol> <p><u>Extension Activity</u></p> <ol style="list-style-type: none"><li>1. Construct an octagonal prism in geogebra and notedown the number of faces.</li></ol>	
<ol style="list-style-type: none"><li>2. Find more real life examples of prisms and name each of them</li></ol> <p><u>Teacher's Reflection</u></p>	



*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- Natural Science Education

## INTERNSHIP LESSON PLAN - 4.4

Name of the teacher: Archana Saji

Name of the school: St. Thomas Palakkattam

Standard: IX Unit: B

Strength: 39

Subject: Biology

Unit: Division for growth and reproduction

Topic: Cytokinesis - Animal Cell

Date: 13-01-2023

Duration: 50 minutes

### Content Overview

### Cytokinesis - Animal Cell

Terms

#### Content Analysis

Cytokinesis animal cell, invagination, daughter cells

Facts

- Cell division becomes completed only after the division of cytoplasm
- Division of cytoplasm is known as cytokinesis
- It is the second most important step in the end of mitosis.
- Cytokinesis is preceded by karyokinesis.
- The process of cytokinesis is almost similar in all eukaryotes
- The cytoplasmic division of an animal cell is referred to as animal cytokinesis
- The cells are divided by the formation of a cleavage furrow on both sides of the mother cell
- The division happens centrifugally
- The cell membrane is pinched off into two daughter cells

Concepts

- A contractile ring is formed in the middle by actin and myosin filaments that pull the cleavage furrow towards the centre.
- The process of separation of the cytoplasmic contents of a cell into two separate daughter cells is referred to as cytokinesis. It is the second most important step in the end of mitosis. Cytokinesis is preceded by karyokinesis, which is the division of a nucleus into two daughter nuclei.
- The process of cytokinesis is almost similar in all eukaryotes. However it tends to differ in cells that have a cell wall, like plants. The cytoplasmic division of an animal cell is referred to as animal cytokinesis. The cells are divided by the formation of a cleavage furrow on both sides of the mother cell.

Process

Cytokinesis

Learning Objectives

Knowledge Domain

- The pupil acquires knowledge and comprehension to,
- Recall the significance of karyokinesis
  - Illustrate stages of animal cytokinesis
  - Describe the process of cytoplasmic division in animals
  - Identify the changes occurring to plasma membrane during cytokinesis

Process Domain

- The pupil develops process skills to,
- Organise concepts regarding cytokinesis
  - Infer the role of cleavage furrow in animal cytokinesis
  - Explain by using their own words the process of animal cytokinesis
  - Raise questions regarding changes occurring to plasma membrane



Prof. Dr. BEENA MA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



- Application Domain** The pupil applies knowledge to
- Elaborate ideas regarding animal cytokinesis
  - Evaluate the significance of cleavage furrow in cytokinesis
  - Elaborate relationship between plant and animal cytokinesis
  - Actually think about different stages of animal cytokinesis
- Attitude Domain** The pupil develops positive attitude towards
- Explain the significance of cytokinesis in prokaryotic cells
  - Interact with others regarding animal cytokinesis
  - Show eagerness to learn and understand the process of animal cytokinesis
  - Develop sensitivity towards life
- Ability Domain** The pupil develops capability to
- Elaborate ideas regarding animal cytokinesis
  - Visualize the stages of cytokinesis division in animal cell
  - Construct model of animal cell during cleavage furrow
- De requisite** The pupil knows that
- Cell division becomes completed only after division of cytoplasm
  - Division of cytoplasm is not same in plant & animal cell
  - Cytoplasmic division results in the formation of 2 daughter cells

**Learning Strategies** Group discussion, Observation, Think-Pair-Share, ICT enabled Learning

- Learning Materials**
- Activity 1  
Slide showing different stages of cell division
  - Activity 2  
Video showing animal cell cytoplasmic division
  - Activity 3  
Slide showing unlabelled diagram of animal cell cytokinesis
  - Activity 4  
Activity card containing 4 true or false statements regarding animal cell cytokinesis

**Values** Respect towards life organisms about cytokinesis

**Expected Product** Discussion notes, Slide reflection, Video reflection, Completed activity card

Teaching/Learning Activity

Signature/Date

Introduction

Review about the previous topic



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



We have already discussed binary in the cell division notes

What are the processes?

- Cell Division

Yes what about the division of nucleus?

- Karyokinesis

Do the division process come to an end with it?

- No

What are the major component which is to be divided after nuclear division

- Cytoplasm

Very correct

So the process of Cytoplasmic division is same in plant & animal?

Definitely No

Let's learn the process by which cytoplasm of an animal cell divides

## Cytokinesis in Animal Cell



### Consolidation

#### Activity-1

Pupil observe a slide showing different stages of cell division. They to discuss in groups and identify stages of cell division.



### Consolidation

- Interphase
- M-phase
  - Prophase
  - Metaphase
  - Anaphase
  - Telophase
- Cytokinesis

Pupil observed the slide showing different stages of cell division with more interest. All groups actively participated in the discussion.

### Activity-2

Teacher shows a video regarding animal cell cytokinesis. Pupil are asked to pass with a friend and share their thoughts on animal cell cytokinesis.

Link: <https://youtu.be/wSxLGOANp76> or <https://youtu.be/ob1de1Wx0E1st1p4>

### Consolidation

- Cytokinesis is generally defined as the division of the cytoplasm during M phase of cell cycle.
- It is the 2nd step in M phase. This process cannot occur without karyokinesis.
- In animal cell cytokinesis occurs during cleavage furrow formation in the plasma membrane.
- Cleavage furrow deepens towards equator which results in the formation of two new daughter cells.
- The division undergoes centropetally, from periphery to center.

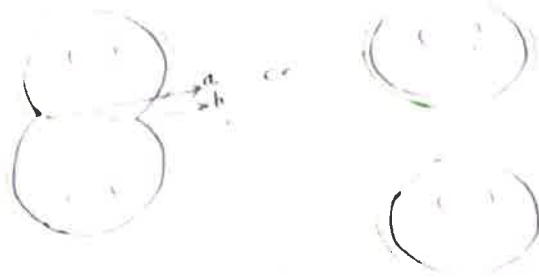
Pupil observed the video showing animal cell cytokinesis eagerly. Each student passed with a friend and shared their views regarding the video content. Some students found it fun.



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## Activity 3

Each group is given a set of drawing materials & a diagram of animal cell cytokinesis. They are asked to label the figure appropriately after group discussion.



### Consolidation

- a) Contractile ring
- b) Cleavage furrow
- c) Daughter cells

All groups actively participated. Group 2 had completed the activity firstly. All groups completed the activity within the time given.

## Activity 4

Each group is provided with an activity card containing true/false statements regarding animal cell cytokinesis. They are asked to check the correctness of each statement after discussing in group.

1. Cytokinesis cannot occur without karyokinesis
2. In animal cell cytokinesis takes place through the formation of cleavage furrow
3. Contractile ring is formed by golgi bodies and vacuoles
4. Animal cell cytoplasmic division happens centrifugally.

### Consolidation

- 1) True    2) True    3) False    4) False



All groups actively participated. Some groups made incorrect responses.

### Follow up activity

1. Write a note on Animal cell cytokinesis in Swixia class
2. Prepare a chart showing diagram of animal cell cytokinesis
3. Construct model showing cleavage furrow

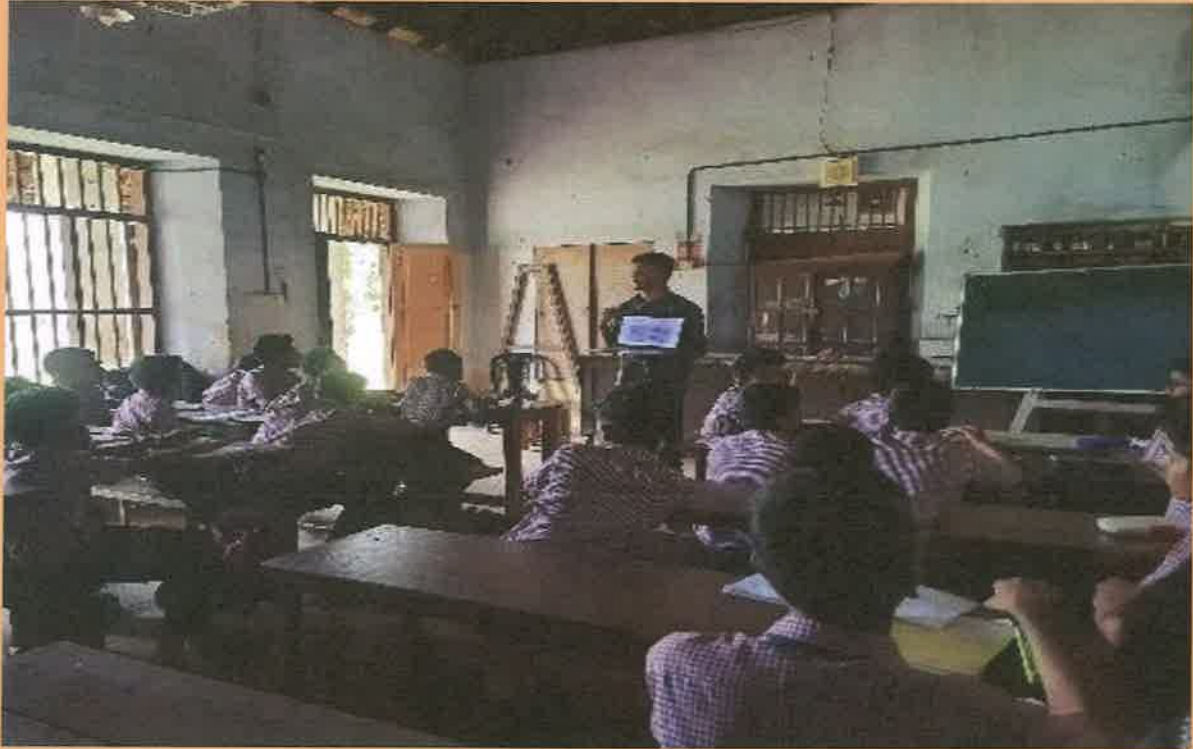
### Reflection

- My feelings/Assessment

I was confident in the class I was able to perform as I prepared.



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



● Physical Science Education

## DISCUSSION TEACHING MANUAL-1

### I - GENERAL INFORMATION

Name of the teacher	: Hanna Elizabeth Joy	Subject	: Chemistry
Name of the school	:	Unit	: Compounds of Non-metals
Standard	: II	Topic	: Ammonia
Division	:	Time	: 40 minutes
Strength	:	Date	: 06/06/2022

### II CONTENT OVERVIEW

The contents for the present discussion teaching manual includes properties, uses and preparation of ammonia.

### III CONTENT ANALYSIS

- i) **TERMS** : Ammonia, liquid ammonia, liquid ammonia, Quicklime
- ii) **FACTS** :
  - When  $\text{Ca(OH)}_2$  is added to  $\text{NH}_4\text{Cl}$  and stir well, pungent smelling gas is produced
  - Ammonia turns red litmus to blue
  - Ammonia has a pungent smell
  - Ammonia is colourless
  - When ammonia is taken in a round bottom flask and dipped in a beaker containing water
  - Ammonia in the water rises in the jet tube and water spreads as fountain



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



- iii) CONCEPTS :→ Ammonia is an important raw material for the production of nitrogenous fertilizers.
- Ammonia is essential for the growth of plants
  - Quick lime is used to remove the moisture during ammonia preparation.
  - Ammonia is highly soluble in water.
  - Ammonia is basic in nature
  - Ammonia is used for the manufacture of chemical fertilizers like ammonium sulphate, ammonium phosphate and urea
  - It is a refrigerant in ice plants
  - It is used to clean tiles and window panes
  - Ammonia gas can be liquified easily by applying pressure
- iv) DEFINITIONS :→ A highly concentrated aqueous solution of ammonia is called liquor ammonia.
- Liquified ammonia is known as liquid ammonia.
- v) EQUATIONS :→  $\text{NH}_3 + \text{H}_2\text{O} \rightarrow \text{NH}_4\text{OH}$
- $2\text{NH}_4\text{Cl} + \text{Ca}(\text{OH})_2 \rightarrow \text{CaCl}_2 + 2\text{H}_2\text{O} + 2\text{NH}_3$
- vi) FORMULAE :→  $\text{NH}_4\text{Cl}$ ,  $\text{Ca}(\text{OH})_2$ ,  $\text{CaO}$ ,  $\text{NH}_3$
- vii) PROCESS :→ Haber process
- Industrial preparation of ammonia is Haber process

## N LEARNING OBJECTIVES

### i) KNOWLEDGE DOMAIN:

The pupil acquires knowledge regarding the above mentioned terms, facts, concepts, definitions, equations, formulae and process.

#### Specific objectives :

- Recalls the use and properties of ammonia in daily life
- Describes the classroom preparation of  $\text{NH}_3$
- Translates the statement regarding laboratory preparation of ammonia into chemical equation.
- Recognizes that ammonia is basic in nature
- Lists the apparatus used in the laboratory preparation of ammonia
- Recognizes that  $\text{CaO}$  is a drying agent.
- Recognizes the common name and chemical name of  $\text{CaO}$ .

### ii) PROCESS DOMAIN :

The pupil develops process skills required to develop the knowledge and understanding of the above mentioned terms, facts, concepts, definitions, equations, formulae and process.

#### Specific objectives :

- Observes the steps in the laboratory preparation of  $\text{NH}_3$  by watching a video.
- Organizes concepts and ideas regarding the properties and preparation of ammonia
- Draws the shape of various apparatus used in the laboratory preparation of ammonia
- Defines the concepts namely liquor ammonia and liquid ammonia operationally
- Draws inferences regarding the properties of ammonia namely basic nature, solubility in water and density.





- Raises question on passing of ammonia through drying tower and collection of  $\text{NH}_3$  in inverted gas jar.
- Formulates hypothesis regarding the use of inverted gas jar and the use of drying tower in the laboratory preparation of ammonia.

### iii) APPLICATION DOMAIN :

The pupil applies above mentioned knowledge and understanding in new and unfamiliar situations.

#### Specific objectives :

- Applies the ideas and concepts related to the properties of ammonia in daily life situations.
- Consolidates ideas related to the properties of  $\text{NH}_3$  namely basic nature, solubility in water and density.
- Generalizes ideas regarding collection of gases which are less dense than air and passing gases through drying tower to remove the moisture content.
- Relates the ideas and concepts related to properties of ammonia in agricultural sector.
- Making decisions regarding the use of  $\text{NH}_3$  in daily life situation especially in agricultural sector.
- Analyses unknown situations to check the applicability of ammonia and its properties.

### iv) CREATIVITY DOMAIN :

The pupil develops creative abilities by learning the topic ammonia and its properties.

#### Specific objectives :

- Gives multiple responses to the open-ended questions regarding the use of inverted gas jar, drying tower etc.
- Visualises images related to the shapes and arrangements of apparatus in the laboratory preparation of  $\text{NH}_3$ .

### v) ATTITUDINAL DOMAIN :

The pupil develops scientific attitudes and values related to the topic preparation and properties of  $\text{NH}_3$ .

#### Specific objectives :

- Develops friendly and positive relationships through classroom activities.
- Develops self confidence through group interaction.
- Develops positive attitudes oneself through group interaction.
- Develops spirit of teamwork, self help and self reliance.

### vi) LEARNING STRATEGIES

- Demonstration
- Group activity
- Group discussion

### vii) SUBJECTIVE REALITY

- Preconception** : Students may have learn about density, solubility, colour change of litmus paper and importance of ammonia in plant growth.



ii) Mis-conception : Not identified any

## VII LEARNING RESOURCES

i) Glassware/Apparatus : Watch glass, test tube, litmus paper, glass rod.

ii) Chemicals/Consumers : Ammonium chloride and Calcium hydroxide ( $\text{Ca(OH)}_2$ )

iii) Audio-visual aids : Videos showing the laboratory preparation of ammonia and basic nature

iv) PRECAUTIONS : Chemicals should be handled with care

## VIII CLASSROOM TRANSACTIONS

PROCESS / ACTIVITY	EVALUATION / RESPONSE
<p><u>SENSITISATION (3 mts)</u></p> <p>Students observe the pictures of certain nitrogenous fertilizers (Ammonium sulphate, ammonium phosphate, urea etc.)</p> <p>Students give answers to the following questions.</p> <ol style="list-style-type: none"> <li>Are you familiar with these chemical compounds?</li> <li>Which is the common element present in these compounds?</li> <li>What is the importance of these compounds in agriculture and industrial sectors?</li> <li>Have you studied any of the nitrogen compounds?</li> </ol> <p>Let us learn more about ammonia today</p>	<ol style="list-style-type: none"> <li>Participation in group activities</li> <li>Concept formation</li> <li>Skill acquisition</li> <li>Reporting/Recording</li> <li>Presentation</li> </ol>

## SESSION-1

### DEMONSTRATION (4 mts)

Students observe the following experiment

Take a little  $\text{NH}_4\text{Cl}$  in a watch glass and add a little calcium hydroxide ( $\text{Ca(OH)}_2$ ) to it & stir well. Show blue and red litmus paper over the watch glass one by one.

#### Observation tips

- Sense the smell
- Colour change of the litmus paper

### GROUP DISCUSSION (10 mts)

Students discuss the following questions in groups, find out answers, record in their science diary and present in the whole group.

#### DISCUSSION TIPS

- Which is the gas produced?
- What is the colour of ammonia?
- What is the colour of ammonia?
- What is the colour change of litmus papers?
- What do you infer from this?
- How can we prepare ammonia in the classroom?



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

3) What is the importance of ammonia in agricultural sector ?

### ANSWERS

- 1) Ammonia
- 2) Pungent
- 3) Colourless
- 4) Red to blue
- 5) Ammonia is basic
- 6)  $\text{NH}_4\text{Cl} + \text{Ca}(\text{OH})_2 \rightarrow \text{NH}_3$
- 7) Essential for plant growth

### CONCLUSION

Ammonia is a colourless pungent smelling gas it is prepared by mixing  $\text{NH}_4\text{Cl}$  &  $\text{Ca}(\text{OH})_2$  in a watch glass. stirring it well. It is basic in nature. It is an important raw material for the production of nitrogenous fertilizers which is essential for the growth of plants.

### GROUP ACTIVITY (5 mts)

Students observe the video presentation of laboratory preparation of ammonia. They also observe the following figure showing the laboratory preparation of ammonia.



### Observation tips

- Reactants and products
- Apparatus used
- Position of gas jar

### GROUP DISCUSSION II (7 mts)

Students discuss the following questions in groups, find out answers, record in the science diary and present in the whole group.

### DISCUSSION TIPS

- 1) Which are the apparatus shown in the figure ?

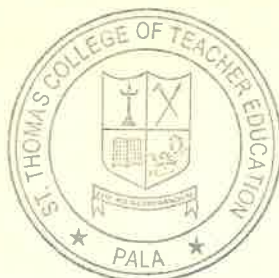



  
 Prof. Dr. BEENAMMA MATHEW  
 PRINCIPAL  
 ST. THOMAS COLLEGE OF  
 TEACHER EDUCATION  
 PALA

- 2) Which are the reactants and products?
- 3) Write the balanced equation
- 4) Which is the compound used in drying tower?
- 5) Why is ammonia gas passed through quick lime?
- 6) What is a drying agent?
- 7) What is the common name of CaO?
- 8) What is the position of gas jar?
- 9) What may be the reason for collecting ammonia in this manner?
- 10) What is your inference about the density of ammonia from this?
- 11) Draw the shapes of various apparatus shown in the figure

## ANSWERS

- 1) Test tube, drying tower, gas jar
- 2)  $\text{NH}_4\text{Cl}$  and  $\text{CaCO}_3$  are reactants and  $\text{NH}_3$  is the product
- 3)  $2\text{NH}_4\text{Cl} + \text{CaCO}_3 \rightarrow \text{CaCl}_2 + 2\text{H}_2\text{O} + 2\text{NH}_3$
- 4) CaO
- 5) To remove the moisture



  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



- 6) something which removes moisture
- 7) Quick Lime
- 8) Inverted
- 9) The density of  $\text{NH}_3$  is lighter than air
- 10) Lighter than air
- 11) =

## CONSOLIDATION

Ammonia is prepared by heating  $\text{NH}_4\text{Cl}$  with  $\text{Ca}(\text{OH})_2$  and balanced chemical equation is  $2\text{NH}_4\text{Cl} + \text{Ca}(\text{OH})_2 \rightarrow \text{CaCl}_2 + 2\text{H}_2\text{O} + 2\text{NH}_3$ . Ammonia gas is passed through a drying tower containing quick lime ( $\text{CaO}$ ) to remove the moisture present in it & collected in an inverted gas jar since it is less dense than air.


## SESSION - II

### GROUP ACTIVITY 1-1 (8 mins)

Students observe the video presentation of experiment demonstrating the solubility of ammonia in water, which is described as follows. They discuss the

57



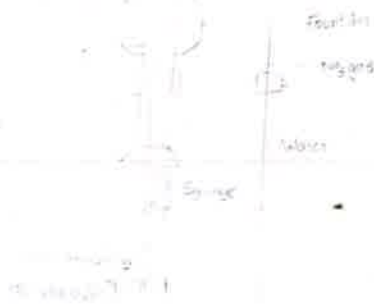
  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

following questions in groups, find out answers, record in the science diary and present in the whole group.

Arrange the apparatus as shown in the figure

Dip the jet tube in the beaker containing water, in which some phenolphthalein is added. Using a

syringe add a few drops of water into the flask in which ammonia is taken



### Observation tips

- Movement of water
- Colour of water

### DISCUSSION TIPS

- 1) what do you observe in the video?
- 2) why does water rush into the flask?
- 3) what is your inference about solubility of ammonia in water?
- 4) why does water entering the flask change its colour?

Dip the jet tube in the beaker containing water, in which some phenolphthalein is added. Using a syringe add a few drops of water into the flask in which ammonia is taken




### Observation tips

- Movement of water
- Colour of water

### DISCUSSION TIPS

- 1) what do you observe in the video?
- 2) why does water rush into the flask?
- 3) what is your inference about solubility of ammonia in water?
- 4) why does water entering the flask change its colour?



  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- 5) Which property of ammonia is responsible for this colour change?
- 6) What is the product obtained when ammonia is dissolved in water?
- 7) Write the chemical equation of the above mentioned reaction.

## ANSWERS

- 1) water rises upwards like a fountain
- 2) change in vapour pressure
- 3) Ammonia is highly soluble in water.
- 4) Ammonia is basic in nature.
- 5) Basic
- 6) Ammonium hydroxide
- 7)  $\text{NH}_3 + \text{H}_2\text{O} \rightarrow \text{NH}_4\text{OH}$

## CONSOLIDATION

Ammonia is highly soluble in water. A highly concentrated aqueous solution of ammonia is liquor ammonia. Ammonia gas is liquified easily by applying pressure. Liquified ammonia is known as liquid ammonia.

59

## X APPLICATION

Q1. When an ammonia tanker leaks, water is sprayed to reduce its intensity. What is the reason for this?

A1. Ammonia is highly soluble in water.

Q2. How do you check for ammonia leak?

A2. By observing its pungent smell or by testing with a litmus paper.

## XI FOLLOW UP ACTIVITIES

### i) Written Assignment

- 1) Explain laboratory preparation of ammonia with a neat labelled diagram.
- 2) Describe an experiment to demonstrate water solubility and basic nature of ammonia.

### ii) Activity Assignment

Prepare a list of ammonia fertilizers used in your vegetable garden and agriculture by discussing with your parents.

## XII REFLECTION NOTES

- i) My findings
- ii) Follow up activities and remedial measures.



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA






- Social Science Education

INDUCTION TEACHING MANUAL - III	
Name of the Teacher Trainee: Annu Paulin Joseph Name of the Institution: St. Joseph's H.S.S, Vilakkumadam Subject: Social Science Unit: Water on Earth Topic: Spring, Geysers, Wetlands	Standards: VIII Division: C Date: 20-2-23 Strength: 35 Duration: 40 minutes
<u>CONTENT OUTLINE</u>  ⇒ Spring ⇒ Geysers ⇒ Wetlands	
<u>CONTENT ANALYSIS</u>  <u>Terms:</u>  <u>Facts:</u>	Horizontal walls, Spring, Geysers, Fissures, Magma, Wetland, Swampy regions, Natural sink.  ⇒ At some places, there will be regular flow of spring while at some places spring dries up soon after the end of season.



  
 Prof. Dr. BEENAMMA MATHEW  
 PRINCIPAL  
 ST. THOMAS COLLEGE OF  
 TEACHER EDUCATION  
 PALA



Concepts:

- ⇒ We can see the Old Faithful geyser at Yellow Stone National Park in USA.
- ⇒ The water that seeps through the fissures on the earth comes in contact with the magma and leads to the formation of hot springs and geysers.
- ⇒ Paddy fields, ponds, swampy region and all low lying regions come under the category of low lands.
- ⇒ Reclamation of the wet lands will lead to environmental problems like flood and lowering of water level.
- ⇒ World Wetlands Day is observed every year on February 2.
- ⇒ Spring: Spring occurs when water flow out along the surface wherever water table touches the ground.
- ⇒ Hot spring: Hot springs are naturally occurring spring of water that is warmed by heat within the earth.

Learning Outcomes

- ⇒ Geysers: The phenomenon of severe ejection of water from within the earth at regular intervals is known as geysers.
  - ⇒ Wetlands: Wetlands are the natural sinks of surface water.
- The learners will:-
- ⇒ understand the concept "spring".
  - ⇒ identify the features of hot spring.
  - ⇒ be able to describe the formation of geysers
  - ⇒ realise the environmental problems related to the reclamation of wetland.

Values Attitudes & Interest:

- The learners:-
- ⇒ will be more interested to know more about Kasargod Suringams
  - ⇒ will have an interest to enjoy the natural beauty of of springs around us
  - ⇒ will recognise the significance of wetland in the ecosystem and a value of protecting our environment is instilled in their mind.



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

<p><u>Skill:</u></p> <p><u>Teaching Learning Material:</u></p> <p><u>Learning Product:</u></p>	<p>⇒ The learner will be able to distinguish between spring and geysers</p> <p>⇒ The learner will be able to identify the factors which causes the disappearance of wetlands in our area.</p> <p>PPT with video and pictures</p> <p>Students learn about the formation of spring by drawing the picture.</p>
<p style="text-align: center;"><u>Learning Process</u></p> <p><u>INTRODUCTORY ACTIVITY</u></p> <p>Teacher creates rapport with children and talks friendly with them. Teacher then ask about multitude of wells which was taught in the previous class. Teacher begins the class by saying the interesting facts about Sringams.</p> <p>"Have you heard about Sringams in Kasargod?"</p>	<p style="text-align: center;"><u>Response</u></p> <p>Students enthusiastically observed video and responded very actively</p>

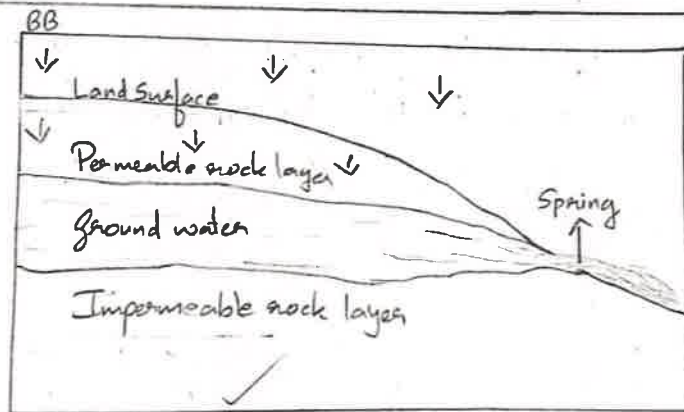
<p>"Have you heard about Horizontal well?"</p> <p>Students observe the video of Sringams in Kasargod and analyse its features.</p> <p><u>DEVELOPMENTAL ACTIVITY</u></p> <p><u>Activity:</u> - Observation of video</p> <p>Students observe the video of a natural spring water flow and identifies it is a spring.</p> <p>"Have you noted this type of springs in our environment?"</p> <p>"When does you noted it? Is it in rainy season?"</p> <p>"Does anybody have permanently or regularly flowing spring on your courtyard?"</p> <p>Students then learn about the formation of spring and hot spring with the help of teacher's explanation.</p>	<p>Students observed the video and responded with correct answers.</p>
---	--



Prof. Dr. BEENAMMA MATHEW  
 PRINCIPAL  
 ST. THOMAS COLLEGE OF  
 TEACHER EDUCATION  
 PALA

Consolidation:

Spring occurs when water flow out along the surface wherever water table touches the ground. At some places the water flowing out will be hot. They are hot springs.



Students correctly drew the picture of spring in their notebook.

Students understand the fact behind the formation of spring

Activity 2 - Observation of video

"Does anybody know about the Yellow Stone National Park in USA?"

Students observe the video of Old Faithful geyser found in Yellow Stone National Park in USA and recognise its features with the help of teacher's explanation.

Students keenly observed the video and identified the features of geysers

Consolidation:

The phenomenon of severe ejection of water from within the earth at regular intervals is known as "geysers". The water that seeps through the fissures on the earth comes into contact with the magma and leads to the formation of hot springs and geysers

Students get a clear idea about geysers and its features.

Prof. Dr. BEENA VIMA MATHEW  
PRINCIPAL

ST. THOMAS COLLEGE OF  
TEACHER EDUCATION

PALA





## Activity 3 - Observation of Pictures

Pictures of various wetlands, flood and wetland reclamation are displayed on slide and students observe the pictures. Students then learn about the features of wetlands. On the basis of their comprehension, they are asked the following questions :-

- "Can you say some examples of wetland?"
- "What are the uses of wetlands?"
- "What will be the role of wetlands during flood?"
- "What will be the reason for frequent floods happening in Kerala?"
- "What are the activities human beings which lead to the disappearance of wetlands?"

Students keenly observed the pictures and actively responded to the questions by giving proper answers.

"Other than flood, what are the bad effects of reclamation of wetlands?"

Consolidation:

Wetlands are natural sinks of surface water. Paddy fields, ponds, swamp regions, mangrove forests and all low lying regions come under the category of low lands. The water stored here form the part of under ground water. Reclamation of wetlands can lead to several environmental problems like lowering water levels in wells and flood.


Students realise the need and significance of wetlands.

### CONCLUDING ACTIVITY

The class is divided into two groups and a quiz is conducted. The questions are the following.

→ Name the phenomenon in which hot water flow out

Students enthusiastically attended the class and got a clear idea about the importance of wetlands.

  
 Prof. Dr. BEENAMMA MATHEW  
 PRINCIPAL  
 ST. THOMAS COLLEGE OF  
 TEACHER EDUCATION  
 PALA



along the surface of ground?

- In which country, Old Faithful geysers located?
- Name the phenomenon of severe ejection of water from within the earth at regular intervals?
- What is known as the natural sink of surface water?
- Give two examples for wetlands?

Students actively participated in the quiz

### FOLLOW UP ACTIVITY

Write a short essay on wetlands covering following topics


- Wetlands and the diverse ecosystems
- Significance of wetlands
- Threats faced by wetlands
- Steps to be followed to conserve wetlands.



### SELF REFLECTION

I was able to complete my lesson plan within 40 minutes. Students actively participated and responded in the class. I was also able to manage the class



  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- Commerce Education

TEACHING MANUAL - 38	
NAME OF THE TEACHER : SEENU THOMAS	SUBJECT : BUSINESS STUDIES
NAME OF THE INSTITUTION : HOLY CROSS H.S.S CHERPUKAZ	UNIT : SOCIAL RESPONSIBILITY OF BUSINESS AND BUSINESS ETHICS
CLASS : XI	CONTENT : REALITY OF SOCIAL RESPONSIBILITY
STRENGTH : 51	DATE : 13-01-2023 DURATION : 45 MINUTES
Content Outline	Reality of social responsibility
Content Analysis	
Terms	Social responsibility, public regulation, labour movement, business education, social interest,
Facts	1. Government take appropriate action to regulate the activities of business which act in a socially irresponsible manner. 2. Consumers are conscious of their rights and powers 3. Development of business education helps people to become more sensitive towards social issues. 4. Social and business interest are not contradictory but they are complement to each other.




Prof. Dr. BEENAMATHA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

	5. Modern education systems create separate class for managers to develop different attitude towards social responsibility.
Concept?	Recent changes in the attitude of business people has been the realization that they have social obligations to fulfil besides ensuring their own existence through profitable activity. Environment take appropriate actions to regulate the activities of business which act in a socially irresponsible manner. Consumers are conscious about their rights and powers. Development of business education helps people to become more sensitive towards social issues.
Curricular objective	To help the learner to understand the concept of reality of social responsibility through observation, story telling, general discussion and prepare note on reality of social responsibility.
Pre-requisites	The learner should have basic idea about meaning and importance of social responsibility, arguments for and against.
Learning strategy	Observation, Story telling, General Discussion
Learning material	<ol style="list-style-type: none"> <li>1. Movie clip from the movie Udaan</li> <li>2. Image of Indian Institute of Management</li> <li>3. Movie clip from the movie Annapurna</li> <li>4. Lots containing terms of reality of social responsibility.</li> </ol>

TEACHER ACTIVITY	PUPIL RESPONSE
<p><u>INTRODUCTORY ACTIVITY</u></p> <p>Teacher asks the following questions to the students</p> <ol style="list-style-type: none"> <li>1. What do you mean by social responsibility?</li> <li>2. Mention some of the arguments for social responsibility</li> <li>3. What are the arguments against social responsibility</li> <li>4. Now a days business enterprises are concerned with social responsibility why?</li> </ol> <p>From the answers teacher introduces the topic.</p> <div style="border: 1px solid black; padding: 5px; display: inline-block;">Reality of Social Responsibility</div>	<p>Obligation of business towards society</p> <p>Endorse and quality</p> <p>Award of environment regulation</p> <p>Lack of social skills</p> <p>Violation of objective</p> <p>Without decreasing social responsibility</p> <p>Firm cost exist.</p>
<p><u>DEVELOPMENTAL ACTIVITY</u></p> <p><u>ACTIVITY 1 : Observation</u></p> <p>Teacher shows a movie clip from the movie Udaan and asks the following questions to the students</p> <ol style="list-style-type: none"> <li>1. What is the situation of the movie clip?</li> <li>2. Why did the police officers entered the hotel?</li> <li>3. What was the action taken by the officers after getting the cat's dead body from the hotel kitchen?</li> </ol>	<p>Miss inspector in hotel</p> <p>Inspector on prostrate</p> <p>It look 1-clone</p>



  
 Prof. Dr. BEENAMMA MATHEW  
 PRINCIPAL  
 ST. THOMAS COLLEGE OF  
 TEACHER EDUCATION  
 PALA



4. Who is responsible to take appropriate action against business when it act in a socially irresponsible manner?

Environment

From the answers teacher concludes that

### 1. Threat of public regulations

Business individuals operate in a socially irresponsible manner, action is taken to regulate them for safeguarding people's interest. This threat of public regulation is important reason due to which business enterprise feels concerned with social responsibility.

### ACTIVITY 2 : Observation

Teacher shows a movie clip from the movie gramophone and asks the following questions to the students.

1. What do you see in this movie clip?
2. Why did the employees are conducting strike against the factory owner?
3. How did the employees become educated about their rights?

labour union.

It gives them personal benefits

Make more things about legal rights.

14

4. If the business enterprises are not taken into account the welfare of its workers, how it will affect the functioning of business?

If employees are not motivated properly productivity will decrease.

From the answers teacher concludes that

### 2. Pressure of labour movement

Labour movements forced business enterprises to pay due regard to the welfare of the workers instead of following a policy of profit and price.

### ACTIVITY 3 : Storytelling

Teacher narrates a story to the students and asks the following questions to the students:

Muthus purchased a saree from Sheermathi during the Onam season. The colour of the saree went away after the first wash and she returned the product to the textile shop. They were not ready to take the saree and they do not give any compensation to Muthus. So she file a complaint to the consumer court against textile shop and the court made an order in favour of Muthus.



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

15



1. Where did Madhu purchased saree from?
2. What happened to the saree after the first wash?
3. Why did madhu approached the consumer court?
4. How did the court made an order?

From the answers teacher concludes that

### Impact of consumer consciousness

Development of education and mass media and increasing competition in the market have made the consumer conscious of his right and power in determining market prices.

### ACTIVITY 4: General Discussion

Teacher asks the following questions to the students.

1. What is the main objective of business?
2. What will happen to business if it tries to maximise profit without considering the interest of the society?
3. Why did business enterprises are interacting with the members of the society?

Shyamally  
Colour of the saree went away  
The shop dealer take the saree and not give compensation to madhu  
Equal order was made in favour of madhu.

Profit -  
They can't survive for long time.

Business functions in the society

4. How did the businessmen became sensitive towards the social issues?

From the answers teacher concludes that

### Development of social standard for business

New social standards consider the economic activity of business enterprises as legitimate but with the condition that they must also serve social needs.

### Development of business education

Development of business education has made more and more people aware of the social purpose of the business.

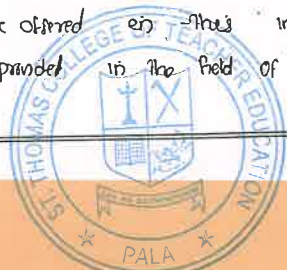
### ACTIVITY 5: Observations

Teacher shows the images of Indian Institute of Management and asks the following questions to the students

1. What kind of courses are offered in this institution?
2. Why such courses are provided in the field of business administration?

Achieves of society, social standards affect business & business serve social needs and must contribute towards social progress

Professional courses management courses  
to develop good managers for the business



Prof. Dr. BENJAMINA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

3. How do professional managers attitude towards social responsibility differs from earlier class of managers?

4. Why such difference in attitude exists for professional managers?

They are interested to generate profit by catering the need of the society. This concept sets one apart by shared interests.

From the answer teacher concludes that

### Development of professional managerial class.

Professional management in education in universities have created a separate class of professional managers who have got an altogether different attitude towards social responsibility as compared to the earlier class of owner managers.

### CONCLUDING ACTIVITY

Teacher distributes list containing reality of social responsibility and asks the student to explain the content given in the list.

Threat of Public Regulations

Pressure of Labour Movements



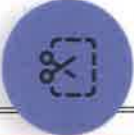
*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA


Impact of consumer consciousness	Development of social standard of business
Development of Business education	Development of Professional Managerial class.

CONTINUING ACTIVITY  
Teacher asks student to prepare note on reality of social responsibility

REFLECTION  
Student response was good. I was able to convey the content effectively using powerpoint presentation and other ~~various~~ <sup>add</sup> ~~teaching~~ <sup>activity</sup> aids.

69

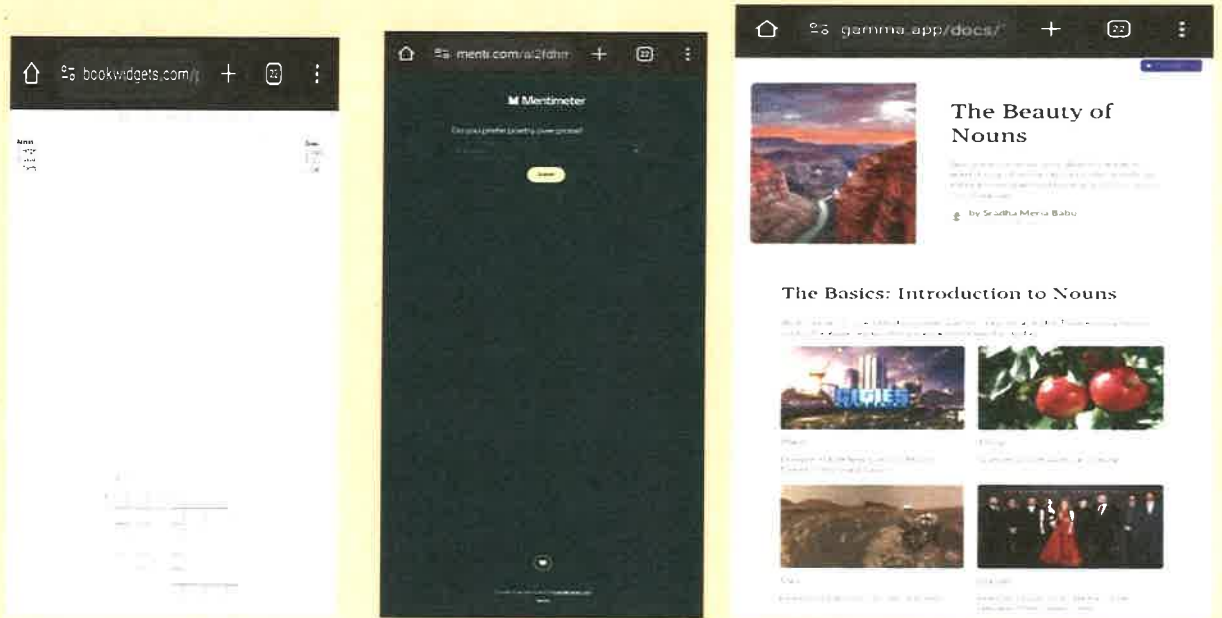


  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## 2. DEVELOPING ASSESSMENT TOOLS FOR BOTH ONLINE AND OFFLINE LEARNING

### Book Widgets, Mentimeter, Gamma

- English Education



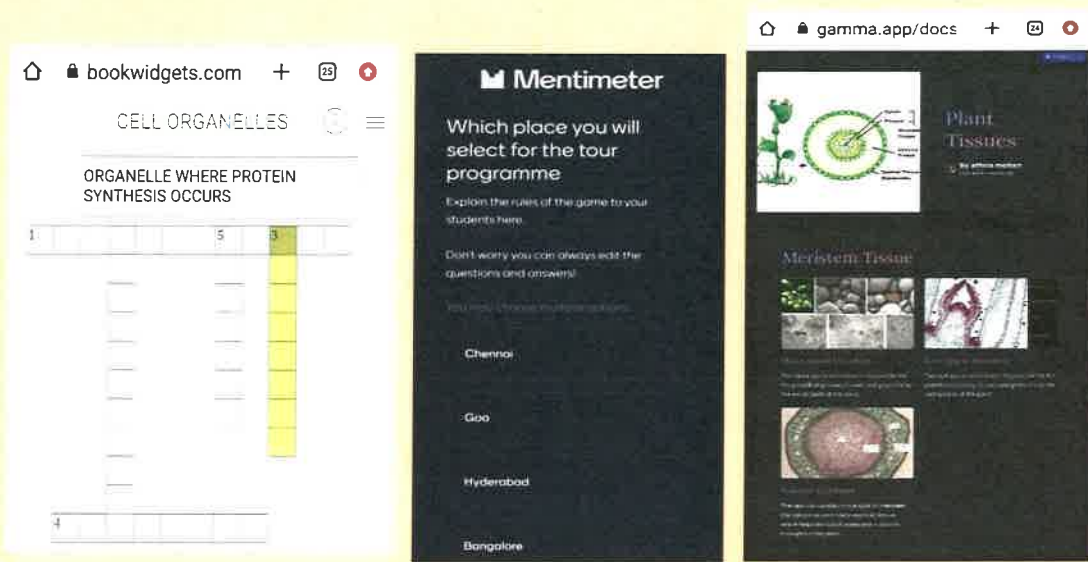
- Mathematics Education



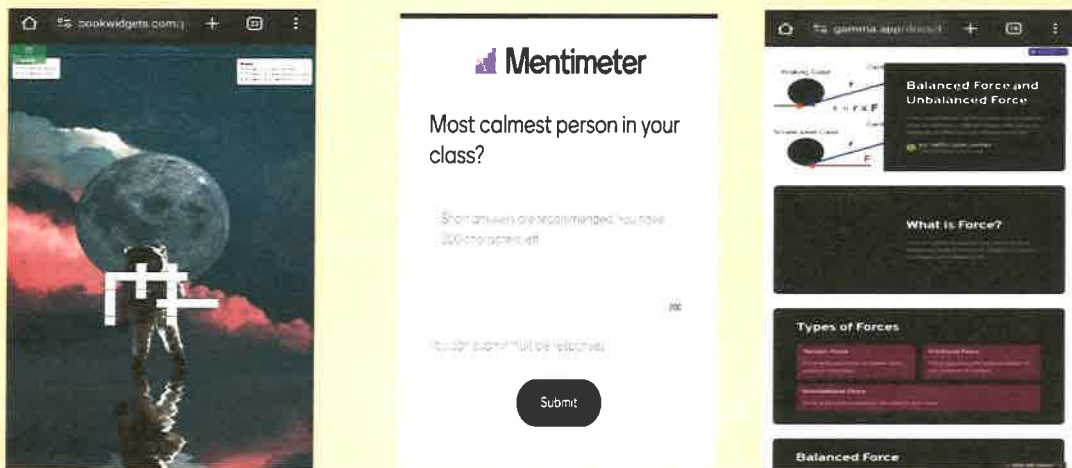
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



## ● Natural Science Education

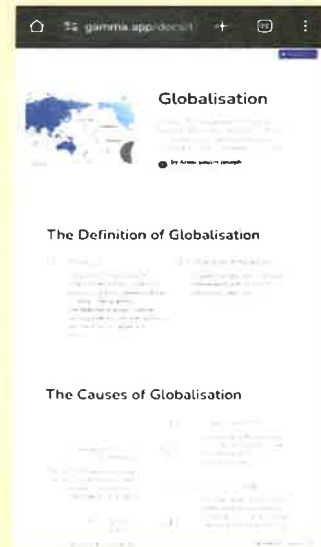
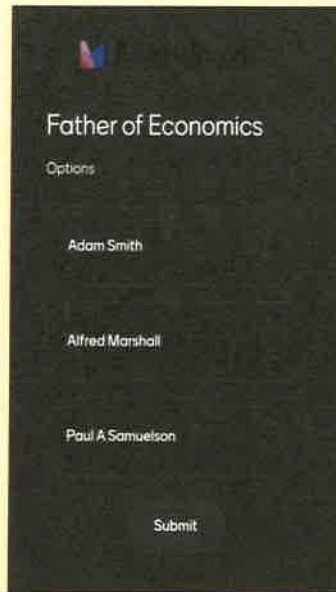


## ● Physical Science Education

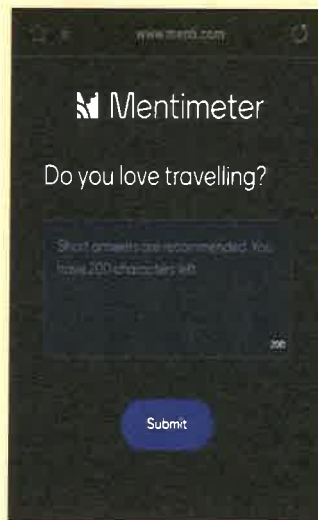
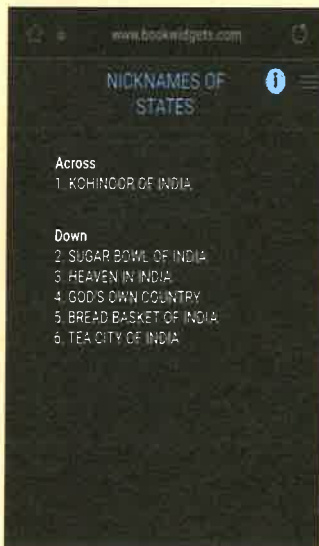


*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## ● Social Science Education



## ● Commerce Education



*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## Google Forms

A study on the awareness of teacher trainees about mental retardation and it's different aspects.

ststepala6@gmail.com Search account

Not signed in

\* Indicates required question

Name \*

Gender \*

Male

Female

Other

Name of the college \*

Subject \*

1. Which of the following is NOT the characteristic of a mentally retarded child ? \*

Delayed response

Deficit in social intelligence

Delay in developmental milestones


Ability to remember

2. Moderate mentally retarded are:

Trainable mentally retarded

Educable mentally retarded



  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

A Study on the Awareness about  
Inclusive Education among Teacher  
Trainees

stctepala@gmail.com [Switch account](#)

Not shared

\* Indicates required question

Name \*

Your answer

Gender \*

Male

Female

Other

Test paper Business Studies  
Total marks : 50

stctepala@gmail.com [Switch account](#)

Not shared

\* Indicates required question

1. Email \*

Your answer

2. Name of the student \*

Your answer

3. Division & class number \*

Your answer



*Beena*  
Prof. Dr. BEENA ANNA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



docs.google.com/forms/d/e/1FAIpQLSfZ5dH-dYdYK4RIUnDqwiVGI9tNZF5c881hM7-cu5NOqvPSiQ/viewform

Number System Quiz

stctepala6@gmail.com [Switch account](#)

Not shared

\* Indicates required question

Which are the digits in the number system? \*

1 point

1 to 9

1 to 10

0 to 9

0 to 10

The place value of the digit 5 in the number 8562 is \*

1 point

5

560

56

500

**General Quiz**

Quiz on general topic. Answer all five questions.

stctepala6@gmail.com [Switch account](#)

Not shared

\* Indicates required question

1. Which is the largest planet in our solar system? \*

Earth

Mars

Jupiter

Venus


2. What is the capital of France? \*

London

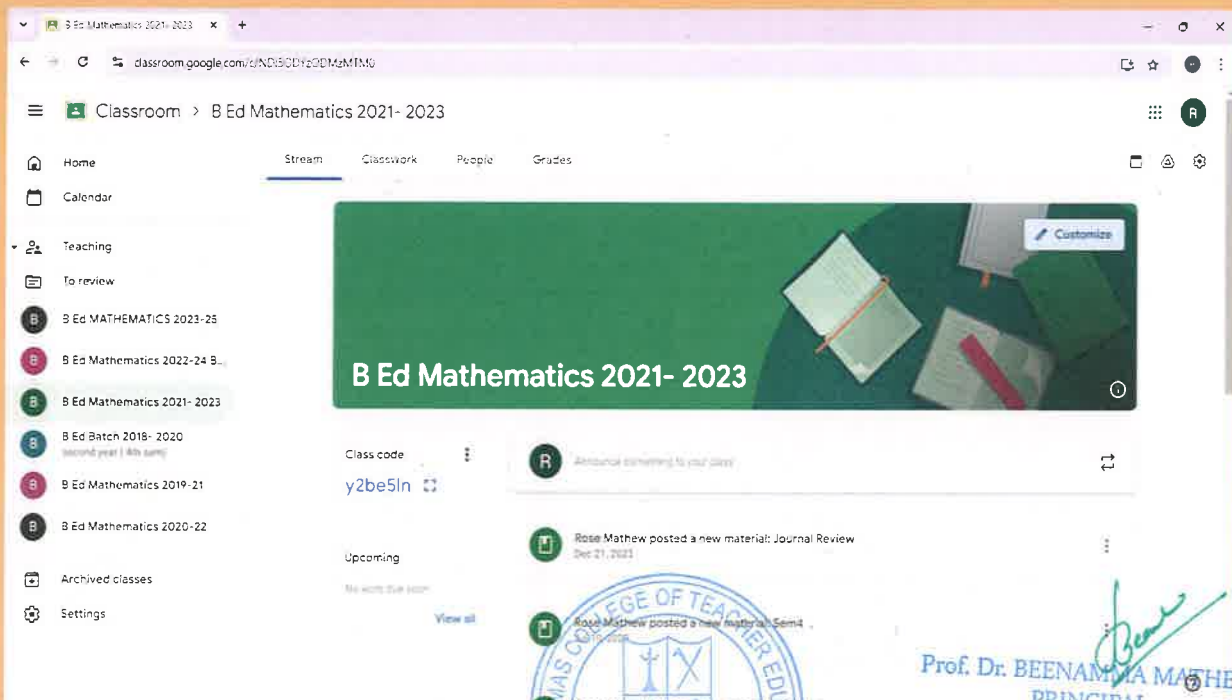
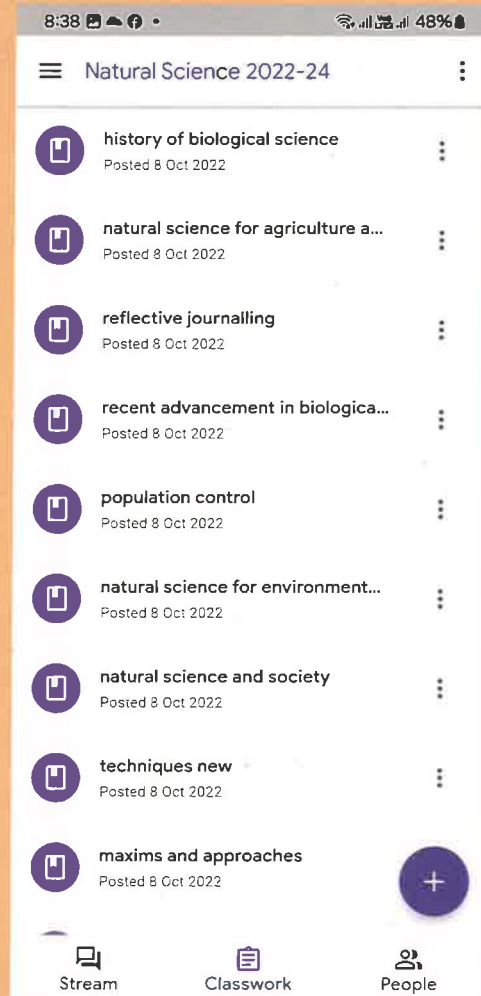
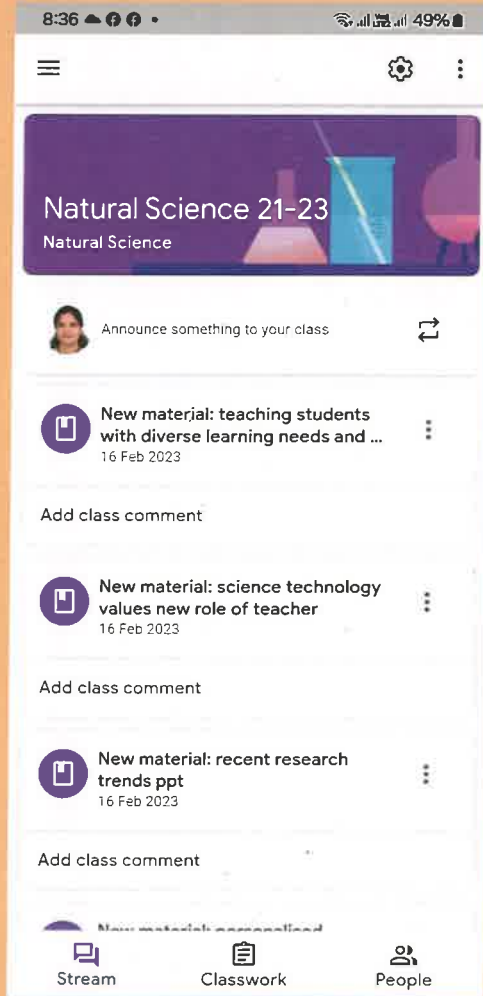
Berlin

Paris

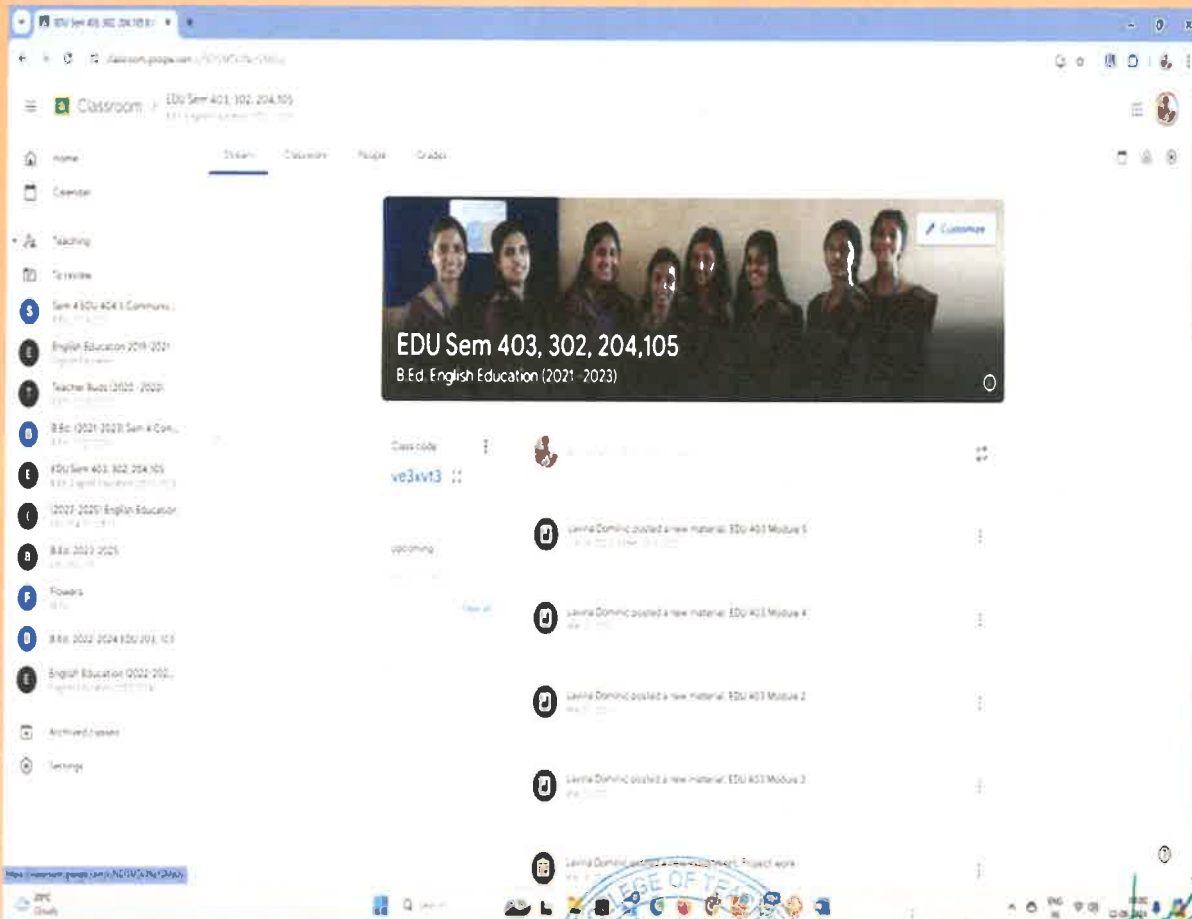
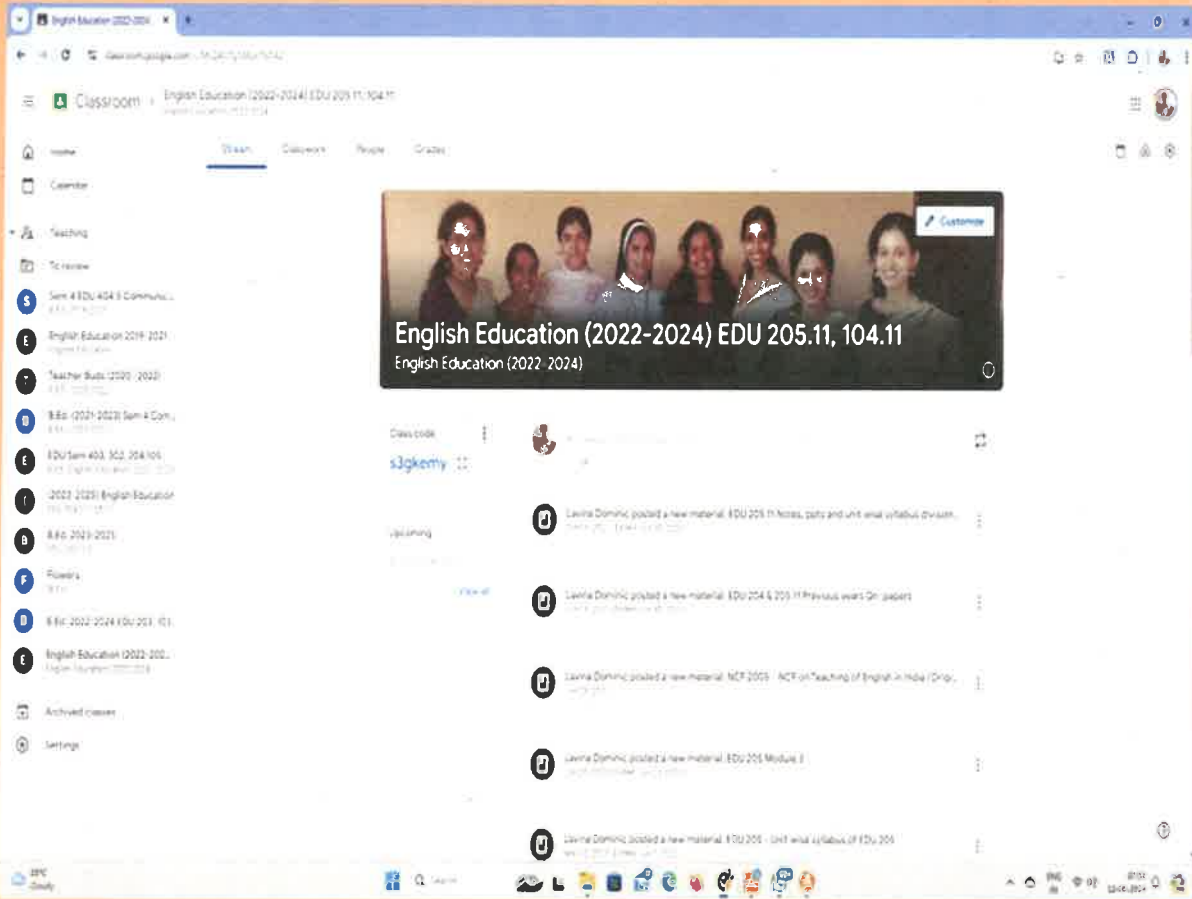


  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## Google Classroom



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



*Lavinia*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

This screenshot shows a Google Classroom interface for a class named "VAC 009 ONLINE ASSESMEN...". The left sidebar lists various classes, with "VAC 009 ONLINE ASSESMEN..." selected. The main content area features a banner image of a group of people with the text "VAC 009 ONLINE ASSESMENT TOOLS". Below the banner, there is a "Meet" section with a "Join" button and an "Announce something to your class" box. The bottom of the page shows a notification from "Sunu Austin" dated Jun 10.

This screenshot shows a Google Classroom interface for a class named "VAC 009 2021-2023 BATCH". The left sidebar lists various classes, with "VAC 009 2021-2023 BATCH" selected. The main content area features a blue banner with the text "VAC 009 2021-2023 BATCH". Below the banner, there is a "Meet" section with a "Generate link" button and an "Announce something to your class" box. The bottom of the page shows a notification from "Sunu Austin" dated Sep 11, 2022, regarding a new assignment: "Create an online quiz on Quizi...".

This screenshot shows a Google Classroom interface for a class named "Business studies". The left sidebar lists various classes, with "Business studies" selected. The main content area features a banner image of a laptop and tablet with the text "Business studies". Below the banner, there is an "Upcoming" section with a "View all" link. The bottom of the page shows a notification from "Sunu Austin" dated Sep 11, 2022, regarding a new assignment: "Create an online quiz on Quizi...".



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



## QUIZIZZ

The screenshot shows the Quizizz website interface. At the top, there's a navigation bar with the Quizizz logo, 'Enter code', 'Log in', and 'Sign up' buttons. Below the navigation bar, it says 'Browse from millions of quizzes'. A search bar is present. The main content area features a quiz titled 'Math Test' by 'Brijrajyothi'. It has 5 questions, 30 seconds per question, and 5 points. The first question is a multiple-choice question: 'What is 4 + 7?'. Below the question are four options: 3, 4, 13, and 14. To the right of the main quiz, there's a 'Suggestions for you' section with several other quiz cards, including 'Time, Multiplication and Division' (231.3K plays), 'Multiples' (443 plays), 'Factors and Multiples' (605 plays), 'Factors' (332 plays), 'Shapas' (8.6K plays), and 'Matrices' (1.1K plays). At the bottom of the main quiz area, there are buttons for 'Start now' and 'Assign'.

The screenshot shows the Quizizz website interface for a quiz titled 'maths' by 'BEENAMMA MATHIEW'. It has 5 questions, 30 seconds per question, and 5 points. The first question is a multiple-choice question: 'three, six, nine, twelve, \_\_\_\_\_'. Below the question are four options: thirteen, sixteen, fifteen, and fifteen. To the right of the main quiz, there's a 'Suggestions for you' section with several other quiz cards, including 'Venn Diagram' (3.3K plays), 'Calculus' (1.4K plays), 'Rules of Inference' (277 plays), 'Shapas' (3.7K plays), 'Time, Multiplication and Division' (231.3K plays), and 'Geometry' (831 plays). At the bottom of the main quiz area, there are buttons for 'Start now' and 'Assign'.



*Beenas*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

**QUIZZZ** Enter code Log in Sign up

Browse from millions of quizzes

Search in Quizizz library

**QUIZ** Share

**BIO LEARN**

3rd grade Biology  
0% accuracy · 0 plays

Aditya Shal 2 years

AI Enhance Worksheet Copy and Edit

Start now Assign

10 questions Show answers Preview

1. Multiple Choice 30 seconds 5 points

1. Which of the following cell organelles is absent in animal cells and present in a plant cell?

cell walls  cytoplasm  
 vacuoles  mitochondria

Suggestions for you See more

- Cell Organelles 12.1K plays 10m - 15m 35 Qs
- Organelles 10K plays 15 Qs
- Cell Structures and Functions 2.4K plays University 20 Qs
- Cell Structure and Function 604 plays 10m 21 Qs
- Cell Organelles and Function 5.9K plays 9m - 10m 20 Qs
- Kingdom Monera 1K plays 15 Qs

Start now Assign

2. Multiple Choice 30 seconds 5 points

2. Which of the following cell organelles does not contain DNA?

nucleus  lysosomes  
 mitochondria  chloroplast

3. Multiple Choice 30 seconds 5 points

3. Which of the following statements is true about the cell wall?

The cell wall is mainly composed of lipid  The cell wall is mainly composed of starch  
 The cell wall is mainly composed of protein  The cell wall is mainly composed of cellulose

Kingdom Monera 1K plays 7m 15 Qs

Diffusion & Osmosis Intro 473 plays 7m 20 Qs LESSON

Cells Quiz 1.9K plays 9m - 10m 20 Qs PREMIUM

Build your own quiz

Create a new quiz

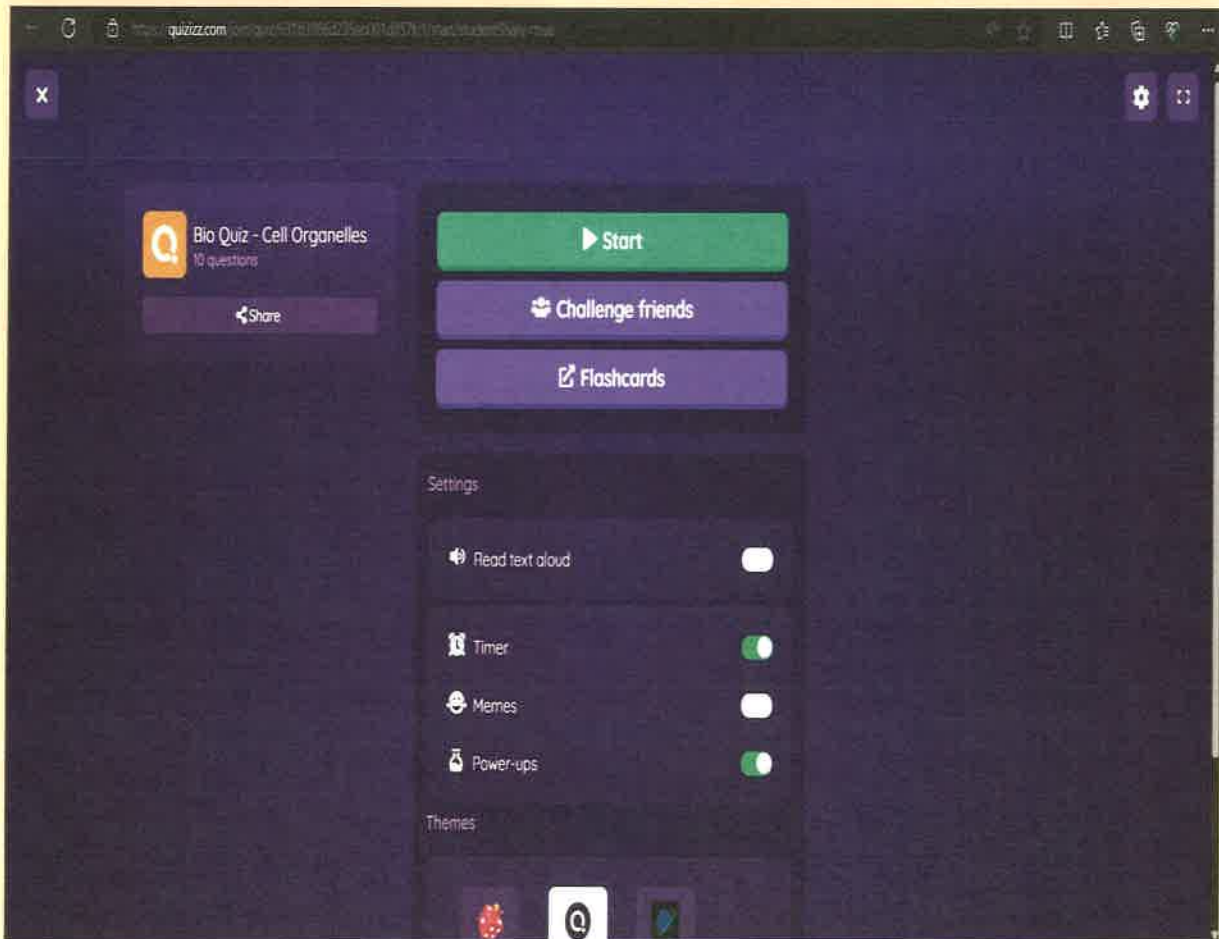
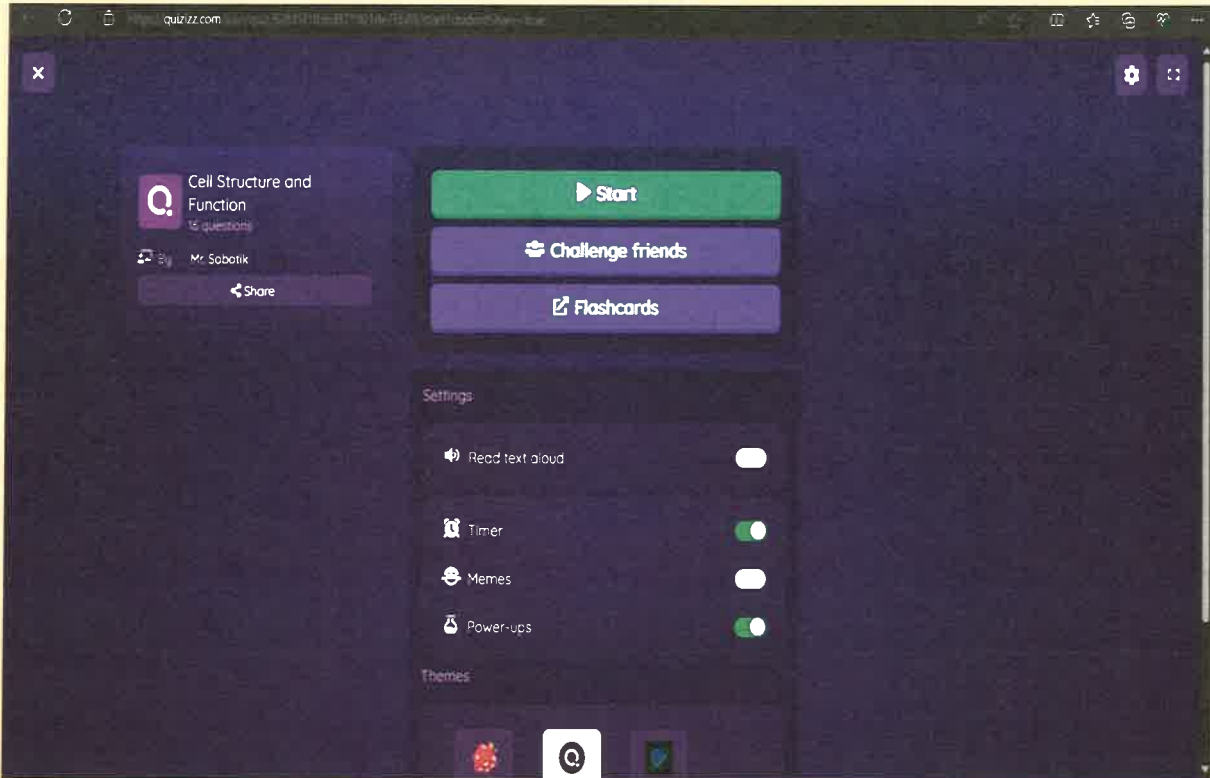
Explore all questions with a free account

Continue with Google

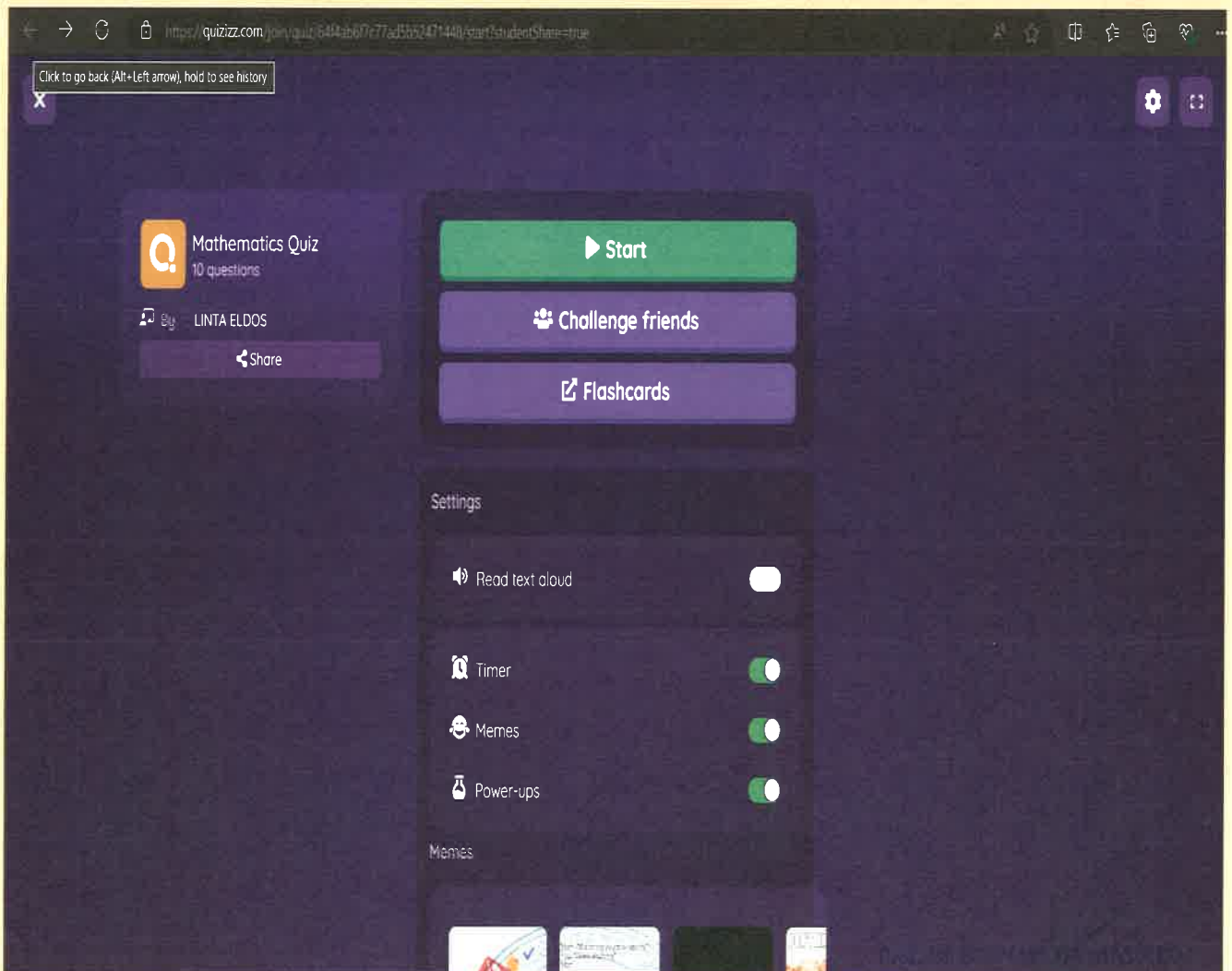
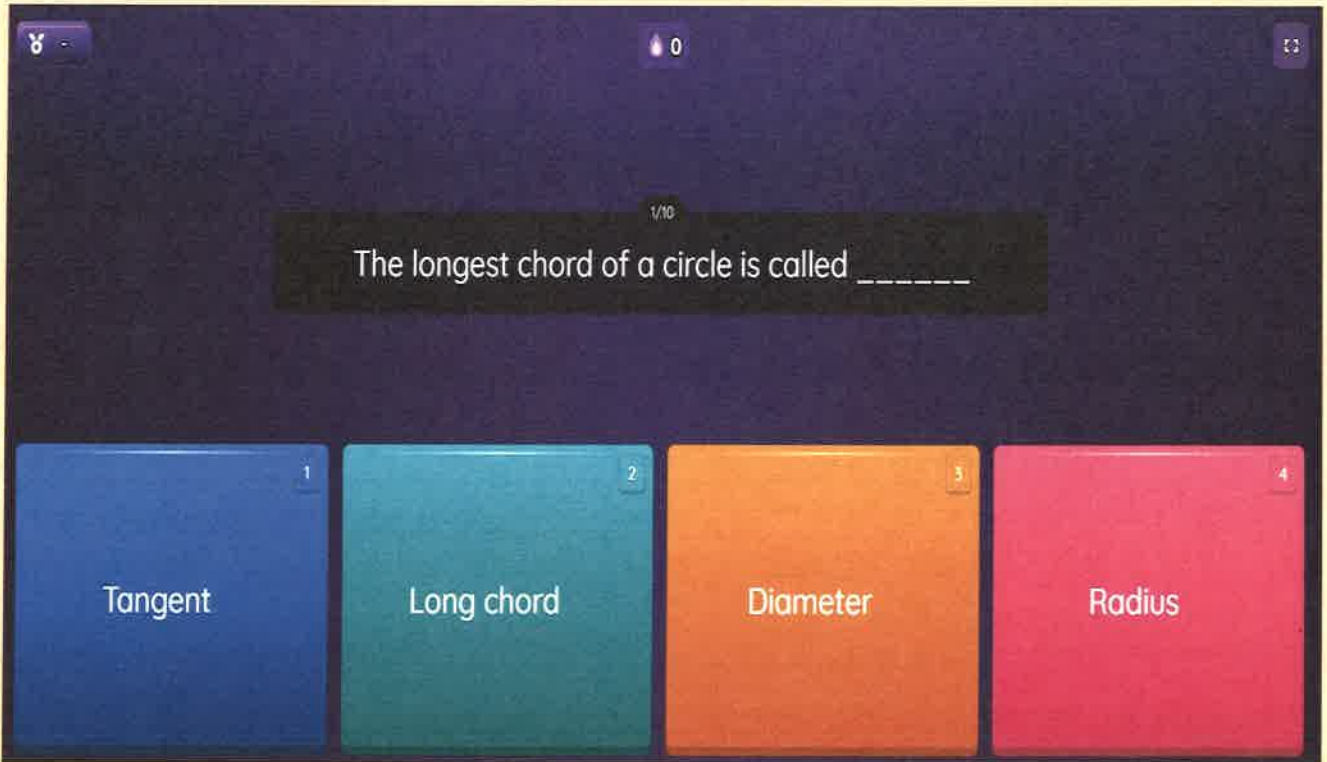
Continue with phone number



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA





## Flash Card

www.bookwidgets.com

Flash Cards 00:05

study practice


What is the derivative of  $x$  with respect to  $x$  ?

X Wrong ✓ Correct

www.bookwidgets.com

Flash Cards 00:09

study practice



Who is known as the "Father of Genetics"?

Show hint

X Wrong ✓ Correct

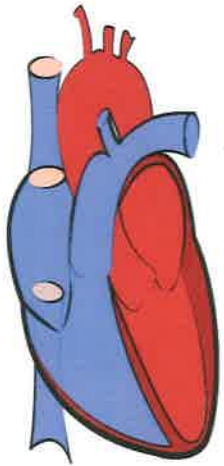


*Be...*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

Flash Cards

study practice

Did you know me? PUZZLE



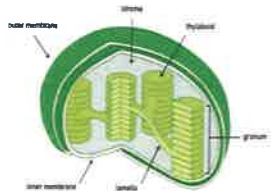
i am belonging to which system?

Show hint

Flash Cards

study practice

Identify this cell organelle



Show hint

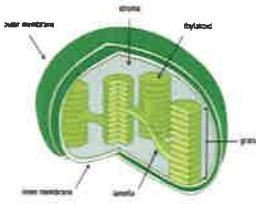


*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

Flash Cards

study practice

Identify this cell organelle



Show hint

X Wrong ✓ Correct

## Google Document

docs.google.com/document/d/14yDqChZfaVfEzygMCX-iz5SKNbtC4M9m0seLGI/edit

Normal text Arial 11 B I U A

Comments

All comments For you

All types

Rose Mathew Jul 26, 2021  
Suggestion accepted

Rose Mathew Jul 26, 2021  
Add paragraph

Sneha Jayakumar Aug 4, 2021  
Suggestion rejected

Rose Mathew Jul 26, 2021  
Delete space (3 times)

Sneha Jayakumar Aug 4, 2021  
Suggestion hidden

Reply or add others with @

**Concepts:**

1. Pyramids -> The pyramids are solids with a polygonal base, a point at the top called apex and having triangular lateral faces.

**Process:**

Formulating the concept of pyramid by

- constructing pyramids of different bases from the paper cuttings of specified measures and
- Comparing and contrasting between pyramids and prisms using the models of both

2. Base edges -> The sides of the polygon forming the base of a pyramid are called base edges.

3. Lateral edges -> The sides of triangular face in pyramids are called lateral edges
4. Apex -> The top most point of a pyramid is called its apex.
5. Height of a pyramid -> The perpendicular distance from the apex to the base of the pyramid.

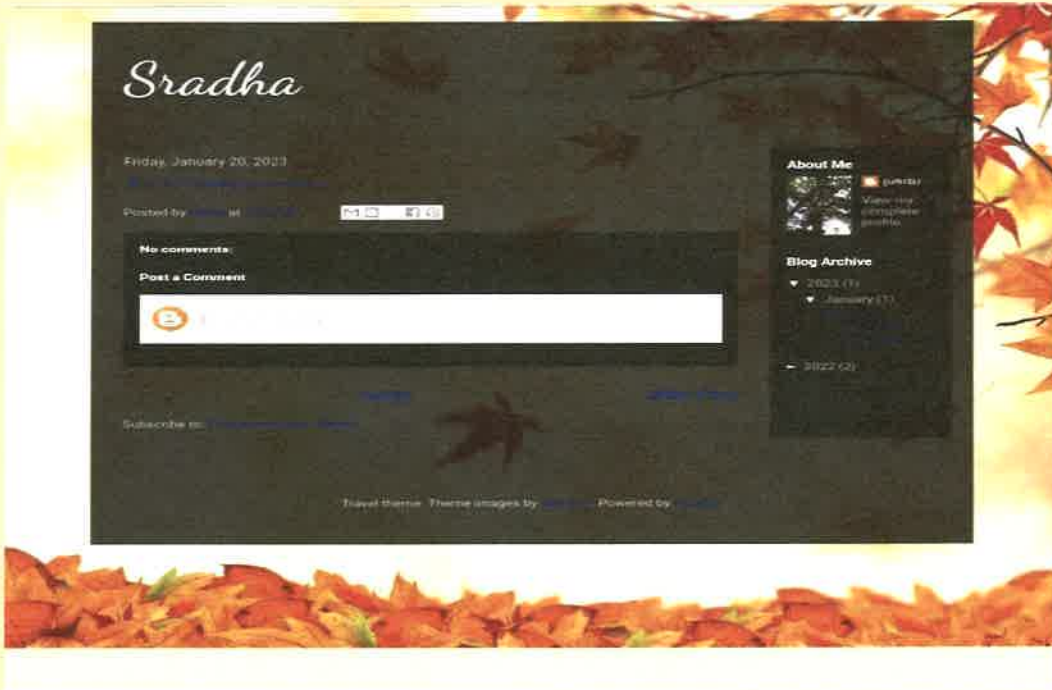


Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## 3. EFFECTIVE USE OF SOCIAL MEDIA/LEARNING APPS/ADAPTIVE DEVICES FOR LEARNING

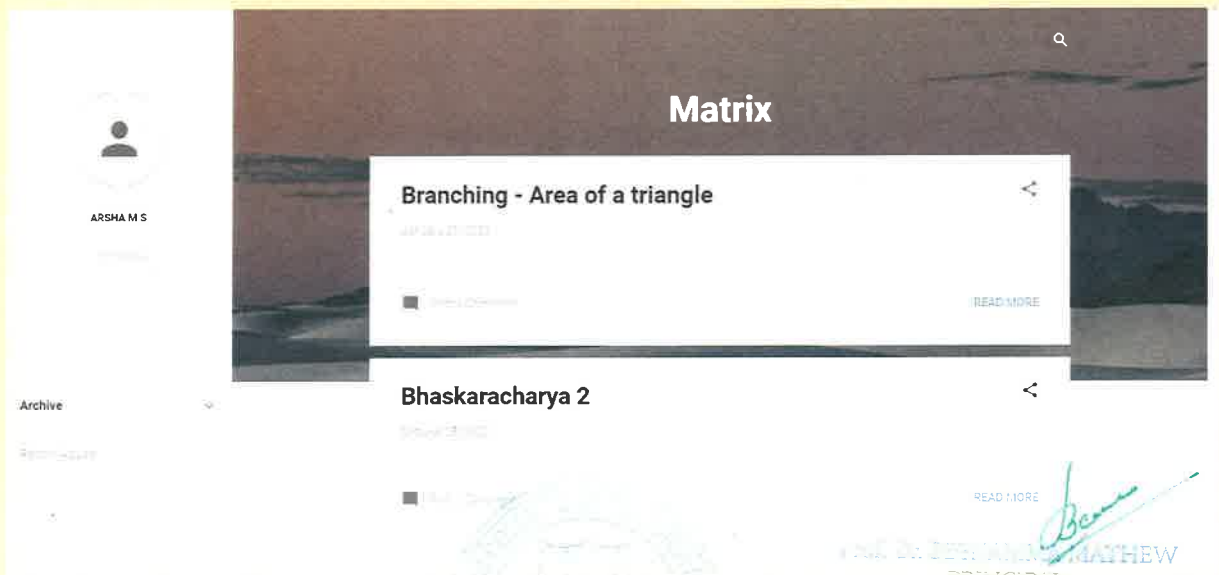
### Blog

- English Education



<https://sradhameriababu1.blogspot.com/2023/01/edu.html>

- Mathematics Education



<https://matrix600.blogspot.com/?m=1>



DR. DEEPAK K. MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION



- Natural Science Education



<http://forsythias99.blogspot.com>

- Physical Science Education

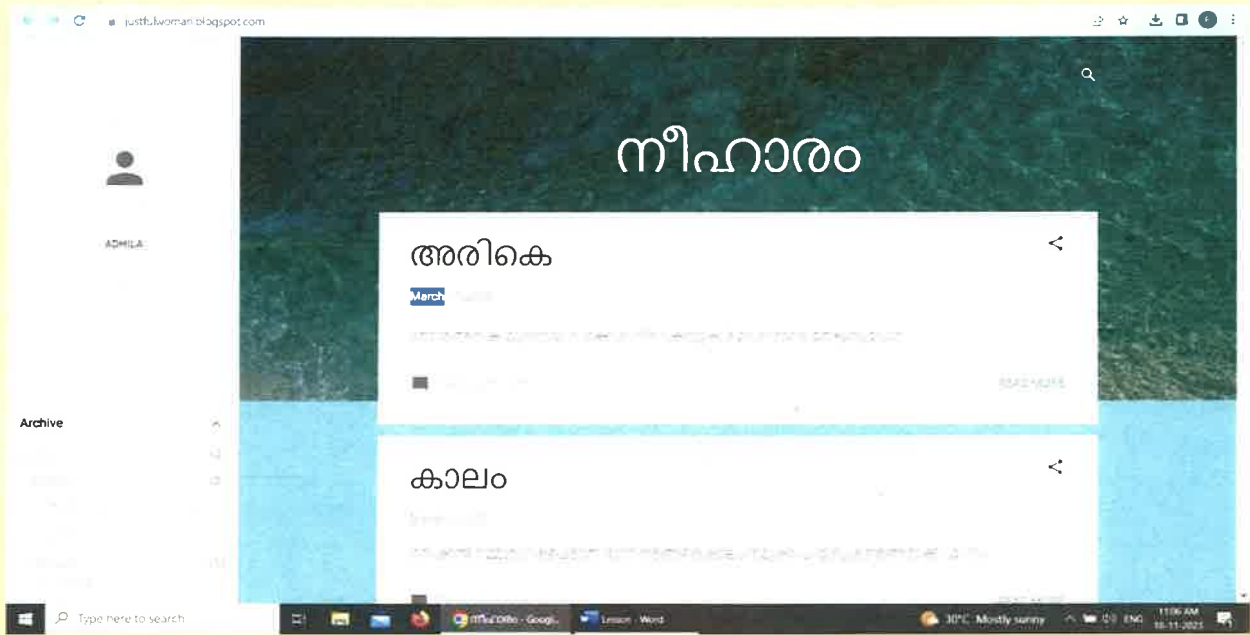


<https://inceptra2022.blogspot.com/?m=1>



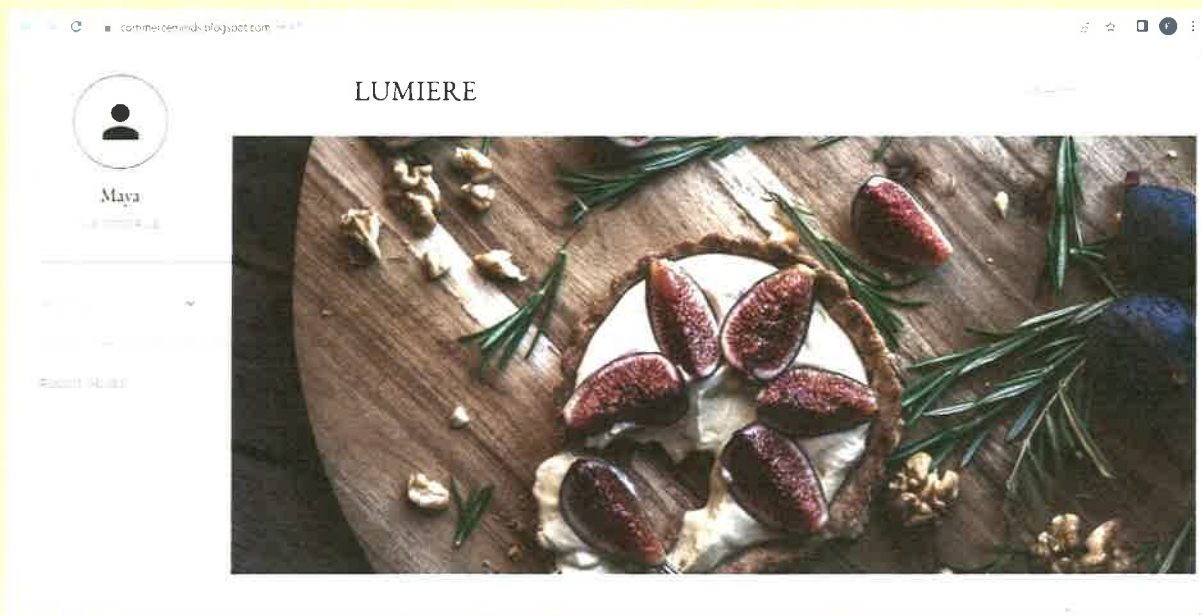
Prof. Dr. BEENAMATH MATHIEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- Social Science Education



<http://justfulwoman.blogspot.com/>

- Commerce Education

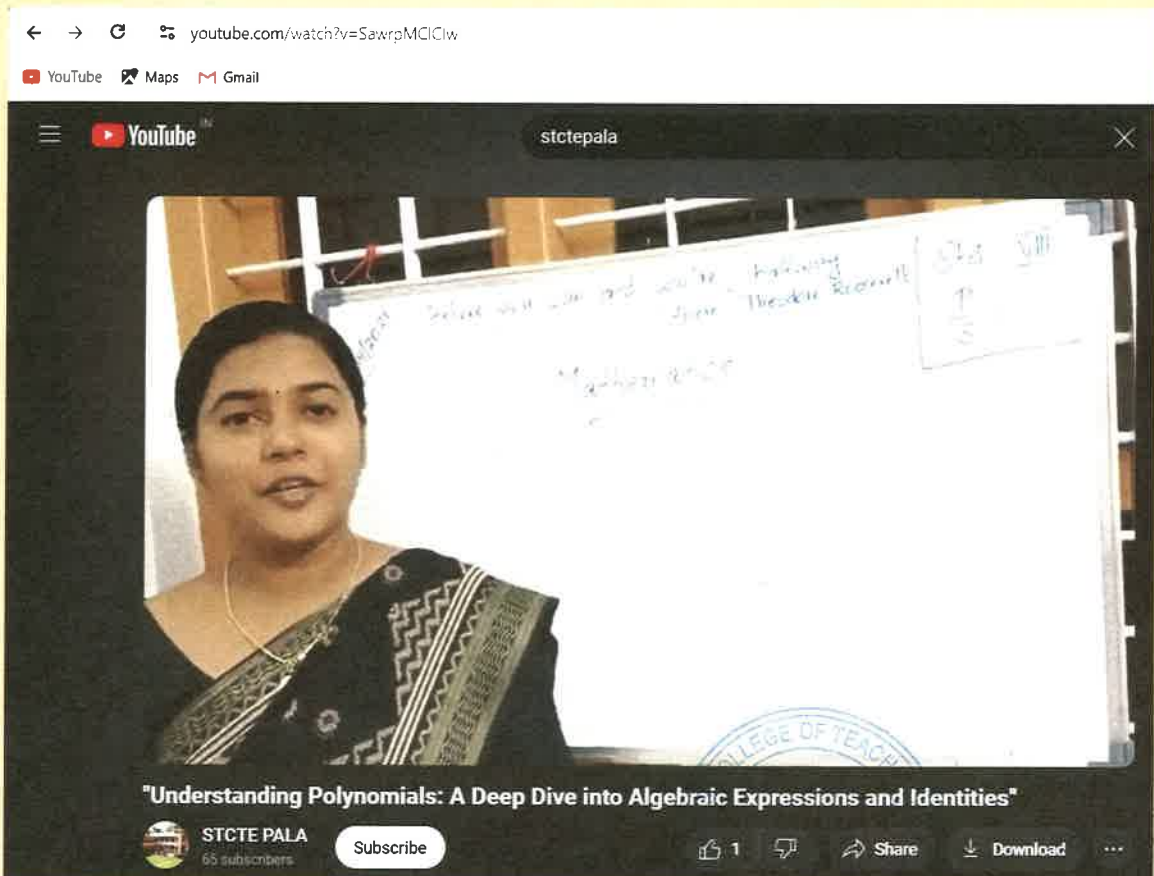
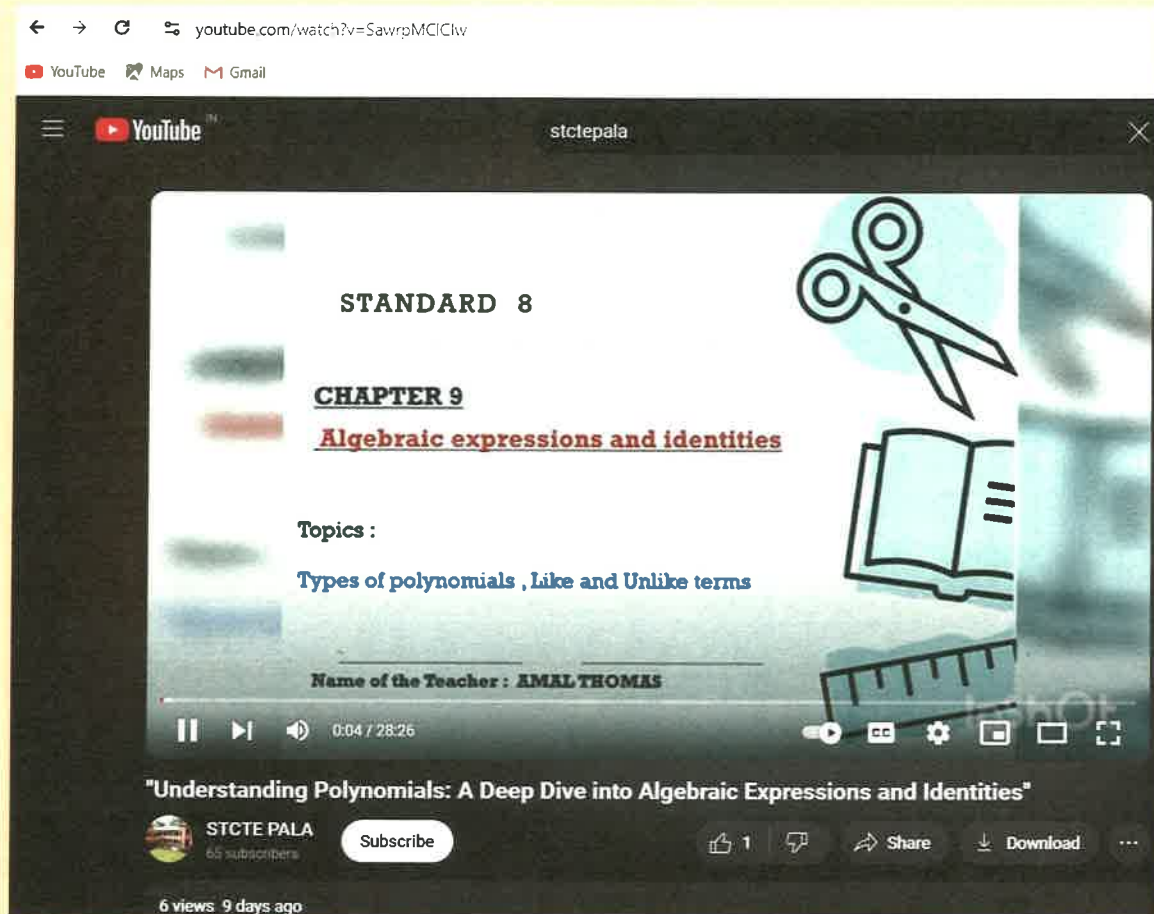


<https://commerceminds.blogspot.com/?m=1>



*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## Youtube



*Ben*  
ENAMMA MATHEW  
PRINCIPAL  
MAS COLLEGE OF  
EDUCATION  
PALA





## 4. IDENTIFYING AND SELECTING/DEVELOPING ONLINE LEARNING RESOURCES

### Branching Programme

- English Education

#### ST. THOMAS COLLEGE OF TEACHER EDUCATION, PALA PRACTICUM

EDU 103: Developments and Resources in Educational Technology  
Programmed Instructional Material Using Branching Programme

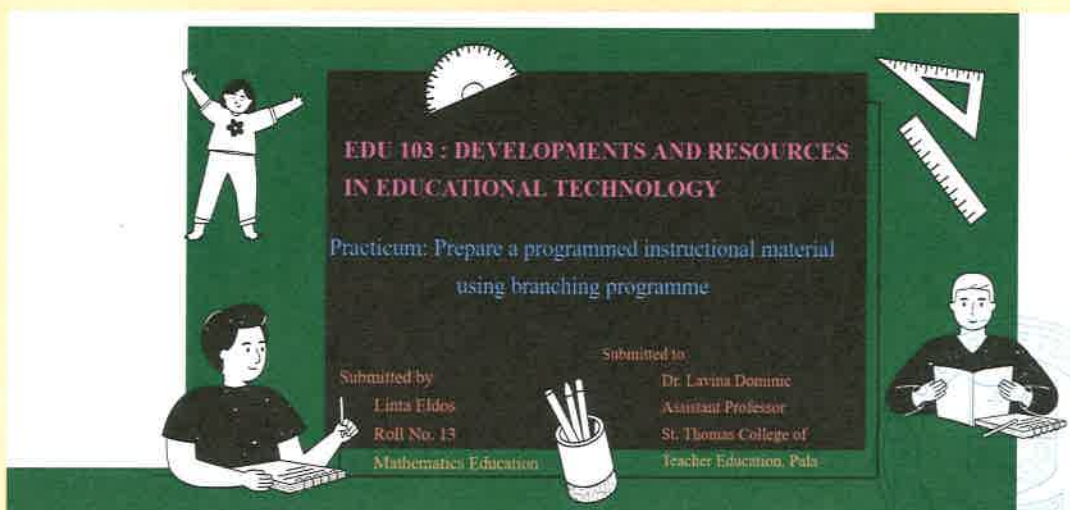
Submitted by,  
Sradha Meria Babu  
English Education  
Class no: 08  
Reg. no:

Submitted to,  
Dr. Lavina Dominic  
Assistant Professor  
St. Thomas College of  
Teacher Education, Pala

Submitted on: 23/12/2022



- Mathematics Education



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA







## Polygons

- A polygon is a closed figure made by joining line segments where each line segment intersects exactly two others.
- The sides of polygon are made of straight lines connected to each other end to end.
- An n-sided polygon is called n-gon.


Polygon is the combination of two words, i.e. poly means many and gon means sides.





- Natural Science Education

## BRANCHING PROGRAMME

Topic : Plant Tissues



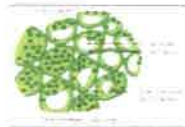
ATHIRA MOHAN  
NATURAL SCIENCE



## Plant tissues

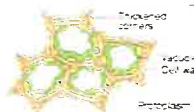
### Parenchyma

- Composed of cells with the simplest structure
- Seen in the soft parts of the plant
- Helps in photosynthesis and storage of food



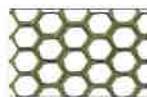
### Collenchyma


- Composed of cells that are thick only at the corners of the cell wall
- Provides flexibility and support to plant parts



### Sclerenchyma

- Composed of cells that are uniformly thick all over the cell wall
- Provides strength and support to plant parts



  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## ● Physical Science Education

**ST THOMAS COLLEGE OF TEACHER EDUCATION PALA**  
EDU 103 – PRACTICUM WORK

**BRANCHED PROGRAMMING**

Class : 10  
Unit : Energy Management

**Topic : LPG**

Submitted By,  
Fathima Salim  
Physical science  
Class no: 29

**LPG ( Liquefied Petroleum Gas)**

- Non renewable source of energy.
- Colourless, odourless gas.
- Obtained through fractional distillation of petroleum.
- Domestic LPG produces an odour since ethyl mercaptan is added as an indicator to detect the gas leakage.
- Main constituent of LPG is Butane.
- Other constituents are Propane and Iso butane
- Friendly to the environment
- Limit of flammability
- Calorific Value – ideal value

**Uses of LPG**

- Cooking
- Rural heating
- Motor fuel
- Refrigeration
- Propellant
- Agriculture – Drying processes
- Chemical feedstock




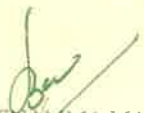
## ● Social Science Education

**EDU 103 – PRACTICUM  
BRANCHING PROGRAMME**

Submitted by  
Annu Paulin Joseph  
B. Ed Social Science  
Class No: 36  
Date: 22/12/2022

Submitted to  
Dr. Lavina Dominic  
Assistant Professor  
St. Thomas College of Teacher  
Education, Pala



  
Prof. Dr. EENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



## TAXES



Tax is the main source of income to the government.

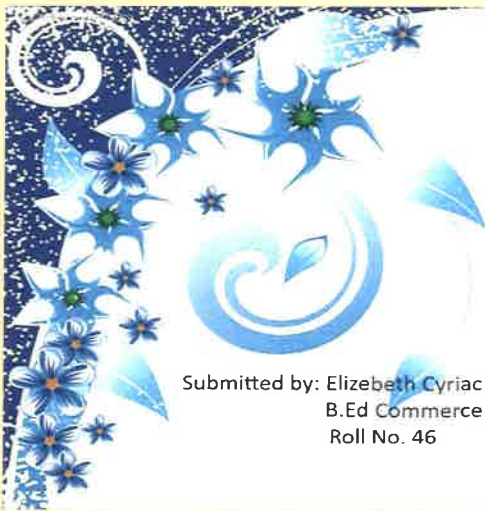
Tax is a compulsory payment to the government made by the public for meeting expenditure towards welfare activities and developmental activities.

Taxes are of two types:-

- Direct Tax
- Indirect Tax

**Direct Tax:** Under direct tax, the burden of the tax is borne by the same person on whom tax is imposed i.e, the tax is paid by the person on whom it is imposed. Example – Property tax, Personal income tax, Corporate tax etc.

### ● Commerce Education



## WELCOME

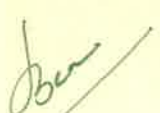
Submitted by: Elizabeth Cyriac  
B.Ed Commerce  
Roll No. 46

Submitted to: Dr. Lavina Dominic  
Asst. Professor  
St. Thomas College  
Of Teacher Education,  
Pala



Management is the **process** of **planning, organising, leading** with the aim of achieving goals **effectively** and **efficiently**.  
Process refers to primary functions and activities that management performs to get things done.  
Effectiveness is concerned with using the right task, completing the activities and achieving the goals.  
Efficiency means doing the task correctly and with minimum cost.



  
Prof. Dr. BEENAMIMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



## E- Learning Material

- English Education

**SEEDS AND DEEDS**  
E- LEARNING CONTENT PREPARATION

Submitted by,  
**Ancyamol Joy**  
English Education  
Roll. No. 2

Standard VIII, Part I, Unit 3

Submitted by,  
Dr. Beenam Mathew  
Principal  
St. Thomas College of Teacher Education  
Pala

**UNIT AT A GLANCE**

**PROSE**

The Light on the Hills (Lucy Clifford)  
Rosa Parks Sat Still (Rosa Parks)

**POEMS**

The Sower (Victor Marie Hugo)  
The Village Blacksmith (H. W. Longfellow)

**HOME**

- Mathematics Education

**EDU 107.2**  
Development and presentation of learning material  
for school pupils

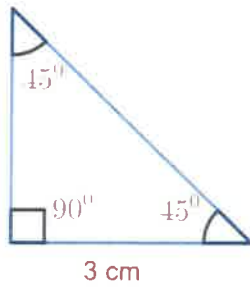
Submitted by  
**Riya Tresa Royce**  
B.Ed Mathematics



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



Have a look at this triangle

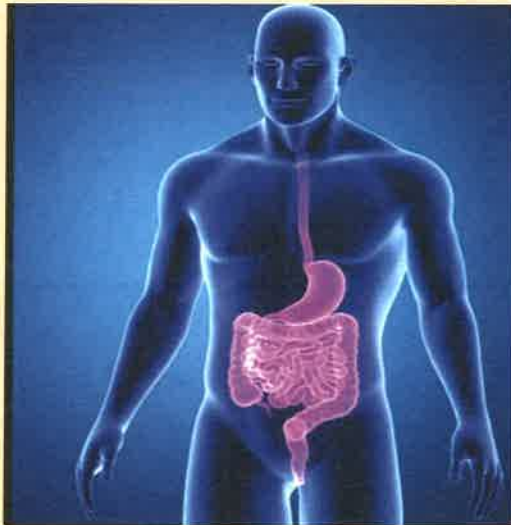


- ? What type of triangle is this
- ? What is the length of the perpendicular side opposite the  $45^\circ$  angle on the right
- ? What is the length of the hypotenuse
- ? Find the ratio of the side lengths



Check your answers

## ● Natural Science Education



### FOOD THROUGH DIGESTIVE TRACT

E-LEARNING MATERIAL PRESENTATION

CLASS 9  
CHAPTER 2

ATHIRA MOHAN  
NATURAL  
SCIENCE  
ROLL NO :21



## INTRODUCTION

- Digestion is the process of converting complex food materials into simple absorbable forms.
- We get nutrients required for life activities from the food we eat.
- Food materials we eat are not absorbed as such by our body.
- Digestion is the breaking down of nutrients into suitable nutrients.

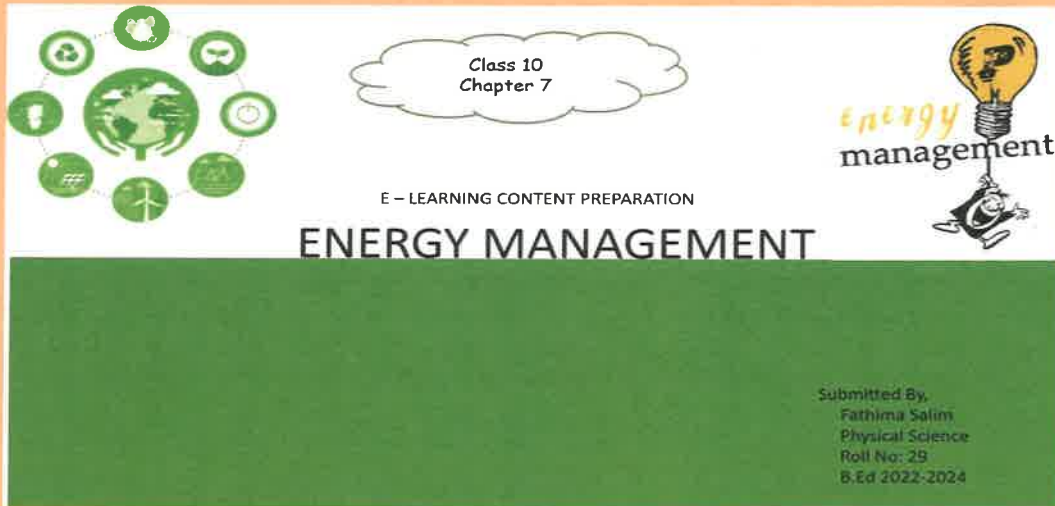
HOME

NEXT



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- Physical Science Education

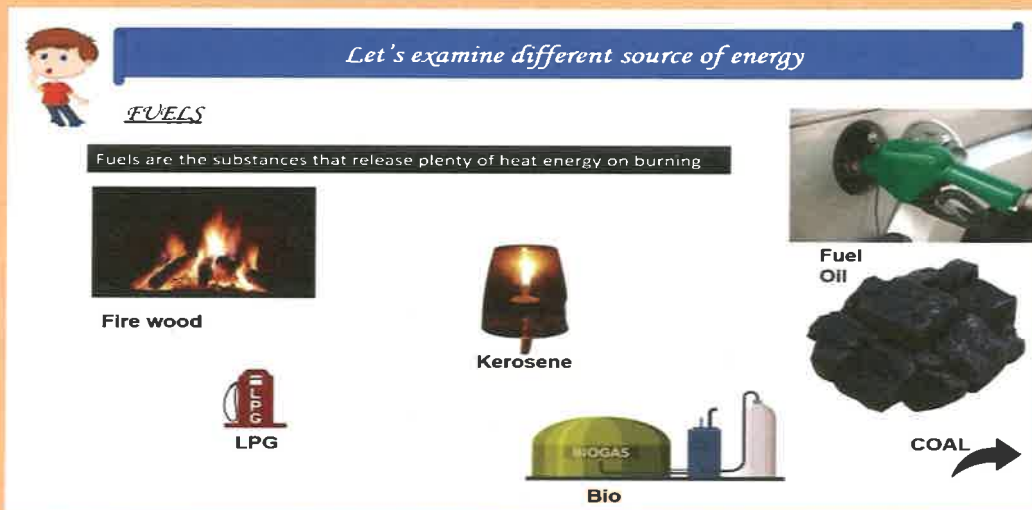


Class 10  
Chapter 7

E - LEARNING CONTENT PREPARATION

## ENERGY MANAGEMENT

Submitted By,  
Fathima Salim  
Physical Science  
Roll No: 29  
B.Ed 2022-2024



*Let's examine different source of energy*

### FUELS

Fuels are the substances that release plenty of heat energy on burning

Fire wood

Kerosene

LPG

Bio gas

Fuel Oil

COAL

- Social Science Education



# WELCOME

## EDU 205.19 - PRACTICUM

Preparation of E - Learning Material on a Topic in Social Science

Submitted By  
Annu Paulin Joseph  
Class: Social Science  
Class No: 36

Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

## LESSON DEVELOPMENT

- 01 Mercury is the smallest one
- 02 Saturn is the ringed one
- 03 Despite being red, Mars is cold
- 04 Venus has a beautiful name

- Commerce Education



## WELCOME

SUBMITTED BY: ELIZEBETH CYRIAC  
B.ED COMMERCE  
NO.46

Submitted to: Mr. Joffy J. Njavallil

Asst. Professor

St. Thomas College Of Teacher  
Education, Pala



## OBJECTIVES



Identify factors  
determining  
choice of form  
of organisation

Understand  
different forms  
of organisation

Know the  
features, merits  
and limitations  
of different  
forms of  
organisations

Distinguish  
between  
different forms of  
organisations



*Beena*  
BEENA MATHHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA





## Digital Album

- Natural Science Education



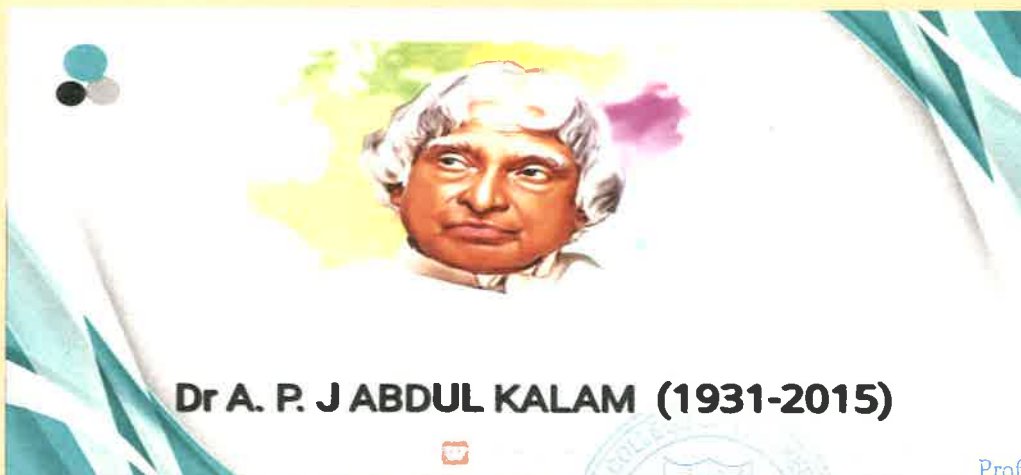
### *Justicia adathoda*




- 'Vasaka' - for bronchitis
- Respiratory ailments like asthma, cough and common cold
- Joint pain, sprain, eczema, malaria, rheumatism and swellings
- Treatment of piles and sexual disorders



- Physical Science Education



  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA



- ◆ Dr. A.P.J. Abdul Kalam, was the 11th President of India (2002-2007)
- ◆ .By profession he was a scientist and an administrator in India.
- ◆ He worked with Indian Space Research Organisation (ISRO) and Defense Research and Development Organisation (DRDO) as an aerospace engineer before becoming the President of India.




Kalam addresses engineering students at IIT Guwahati



Kalam along with Vladimir Putin and Manmohan Singh during his presidency

## ● Social Science Education


**ST. THOMAS COLLEGE OF TEACHER EDUCATION,  
PALA**



SUBMITTED BY  
ANNU PAULIN JOSEPH  
SOCIAL SCIENCE  
2022 – 2024

SUBMITTED TO  
DR. SUNU AUSTIN  
26 - 09 - 2022

**MAX WEBER**



(1864 – 1920)

Max weber was a German sociologist and political economist. He is regarded as one among the most important theorists of the development of modern Western society. He is recognised as one among the fathers of sociology.

His notable work, “The Protestant Ethic and the Spirit of Capitalism” (1905) is considered as founding text in economic sociology. In the book, Weber wrote that capitalism in Northern Europe evolved when the Protestant ethic influenced large numbers of people to engage in work in the secular world, developing their own enterprises and engaging in trade and the accumulation of wealth for investment.



*Beena*  
Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA

- Commerce Education



## Financial Systems

### Components



Financial  
Institutions

Financial  
Markets

Financial  
Instruments

Financial  
Services

Currency  
(Money)



Prof. Dr. BEENAMMA MATHEW  
PRINCIPAL  
ST. THOMAS COLLEGE OF  
TEACHER EDUCATION  
PALA