CRITERION III

RESEARCH AND OUTREACH ACTIVITIES

3.1 - Resource Mobilisation for Research

3.1.4 Institution has created an eco-system for innovation and other initiatives for creation and transfer of knowledge that include

1. **Participative efforts (brain storming, think tank etc.) to identify possible and needed innovations**
2. **Encouragement to novel ideas**
3. **Official approval and support for innovative try-outs**
4. **Material and procedural supports**

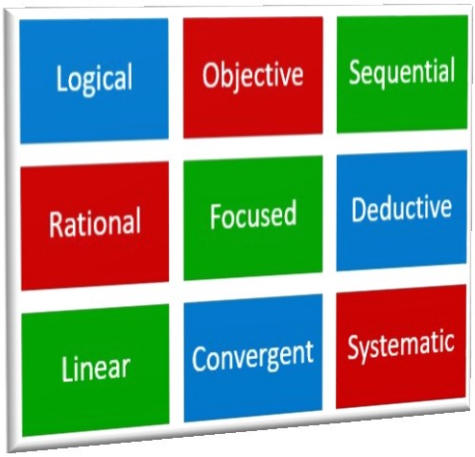
Reports of innovations tried out and ideas incubated

Innovations Tried-Out and Ideas Incubated	
a)	Stimulation of Analytical Thinking through Mathematics among School Students
b)	Active Learning Programme

SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF EDUCATION
(An Autonomous College affiliated to the Tamil Nadu Teachers Education University
and Re-accredited with A++ grade by NAAC with CGPA 3.82)
Sri Ramakrishna Vidyalaya Post, Coimbatore - 641 020.
Ph: 8012533915 e-mail:srkvcoen@yahoo.co.in Website: www.srkvcoe.org

Stimulation of Analytical Thinking through Mathematics among School Students

2022 - 2023



Programme Coordinator

Sri. V.ESWARAN
Assistant Professor in Mathematics

Organized by

Internal Quality Assurance Cell (IQAC)

SWAMI GARISHTHANANDA
SECRETARY

Dr. G. SUBRAMONIAN
PRINCIPAL

SRI RAMAKRISHNA MISSION VIDYALAYA COLLEGE OF EDUCATION
(AUTONOMOUS)
Coimbatore - 641 020

Stimulation of Analytical Thinking through Mathematics among School Students

Introduction:

Analytical thinking is a crucial skill that enables individuals to approach complex problems and challenges by breaking them down into smaller parts, analyzing them, and then putting them back together to form a solution. It is an essential skill for students to develop, as it helps them think critically and creatively, and it is useful in various academic and professional pursuits. In recognition of the importance of analytical thinking skills, Sri Ramakrishna Mission Vidyalaya College of Education initiated classes to develop these skills among school students.

Objectives:

- To promote analytical thinking skills among students from the sixth standard to the ninth standard.
- To enhance the pedagogical abilities of B.Ed. Student teachers and faculty members in delivering Mathematics education that stimulates analytical thinking.
- To create a competency-based educational approach that seamlessly incorporates analytical thinking strategies into the teaching of Mathematics.
- To establish a nurturing and participative learning setting that encourages teamwork, creativity and the development of problem-solving abilities
- To appraise students' advancements and offer them feedback by employing evaluation and feedback methods.

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Methodology:

a) Curriculum Integration:

A team of Mathematics educators, and experts and analytical thinking collaborates to integrate analytical thinking skills in existing curriculum that aligns with the national educational standards and promotes higher order thinking skills. The curriculum incorporates interactive teaching methods, problem-solving activities, and real-world applications of Mathematics.

b) Teacher Training:

Student teachers and faculty members received specialized training in instructional strategies that foster analytical thinking in Mathematics. The training included periodical workshops and orientations to equip teachers with the necessary skills to implement the programme effectively.

c) Implementation:

The programme implemented in campus schools, covering students from the first standard to the ninth standard. Teachers deliver the curriculum using a student-centered approach, encouraging active participation, critical thinking and analytical reasoning. The lessons designed to engage students in challenging problem-solving tasks and promote higher-order thinking skills.

d) Assessment and Feedback:

Ongoing assessment tools, such as formative and summative assessments, utilized to monitor students' progress and provide feedback.

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The primary goal of Analytical Thinking classes is to develop analytical thinking skill among school students through teaching Mathematical concepts. Mathematical abilities are essential because they provide structure for rationally solving problems. It helps in the conceptualization of several areas that include verbal components such as numerical knowledge, counting and reasoning as well as non-verbal components such as Mathematical notation, reasoning in time and space, calculation, and so on.

Mathematical exercises such as puzzles, riddles, and open-ended inquiries, finding patterns, brainstorming ideas, analysing data, and making situational decisions among students were planned and executed. Application of analytical thinking components paves the way for enhancing the IQ levels. It supports the growth of pupils' critical and creative thinking. It teaches children how to think differently in a diverse range of situations. Utilization of advanced technology in analytical classes stimulates the interest, curiosity and helps pupils to familiarize Mathematical concepts easily.

Phase I : Trainer Training Programme:

Regular Trainer's Training Programme on Stimulating Analytical Thinking through Mathematics is conducted for student teachers and question paper setters. The Programme coordinated by Sri. V. Eswaran, Assistant Professor in Mathematics and organized by the Internal Quality Assurance Cell, Sri Ramakrishna Mission Vidyalaya College of Education.

The programme has been designed to introduce teaching strategies and syllabus related to stimulating analytical thinking through Mathematics. It will cover various topics including the introduction to Moodle (LMS), hands-on training in Google Sheet, Google quiz and question bank preparation using various resources. The aim of the programme is to equip Student - teachers and Research scholars with the necessary skills and knowledge to promote analytical thinking and problem-solving abilities among school students through Mathematics.

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Phase – II : Implementation of Programme

Sri Ramakrishna Mission Vidyalaya College of Education initiated organising the Classes on "Stimulation of Analytical Thinking through Mathematics among School Students" for sixth grade students to ninth grade students of Sri Ramakrishna Mission Vidyalaya Swami Shivananda Higher Secondary School. Student-Teachers from Sri Ramakrishna Mission Vidyalaya College of Education and Ph.D Scholars from Department of Mathematics, Sri Ramakrishna Mission Vidyalaya College of Arts and Science has been handling the Analytical Thinking Classes weekly once for a period of 45 minutes duration. Analytical Thinking Tests were conducted through online mode twice in a month to assess pupils' progress. The programme coordinated by Sri. V. Eswaran, Assistant Professor in Mathematics.

Beneficiaries:

Following is the number of students benefited from stimulation of Analytical Thinking through Mathematics.

Class	Boys	Girls	Total
VI	122	56	178
VII	113	38	151
VIII	132	38	170
IX	162	72	234
Total	**529**	**204**	**733**

Impact:

The analytical thinking classes organized by Sri Ramakrishna Mission Vidyalaya College of Education helped students develop analytical thinking skills. The online analytical thinking tests conducted twice a month helped assess the progress of students. The students have shown improvement in their analytical thinking skills, which is evident from the progress shown in the analytical thinking tests conducted online.

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Moreover, the classes also helped students in enhancing their IQ levels, which will be helpful in their future academic and professional pursuits. Analytical thinking skills help students to think critically and creatively, which is essential in various areas of their life. By developing analytical thinking skills, students will be able to tackle challenges with more ease, which will help them achieve their goals. The use of advanced technology in analytical classes has made the classes more interesting and engaging for students. The students were introduced to new tools, such as educational apps, that allowed them to learn and practice analytical thinking skills in a funny and interactive way. By incorporating technology, the classes were able to stimulate the interest and curiosity of students, which helped them familiarize themselves with Mathematical concepts more easily.

Roles and Responsibilities:

Sri. V. Eswaran, as the coordinator of the programme, played a crucial role in planning, organizing, and overseeing its execution. The B.Ed. student teachers (Mathematics and Physical Science) from Sri Ramakrishna Mission Vidyalaya College of Education actively participated in the programme by conducting analytical thinking classes for the students. Mathematics student teachers were responsible for preparing the analytical thinking question papers and conducting online tests. Their efforts were closely guided and supervised by Sri. V. Eswaran, Assistant Professor in Mathematics.

Outcomes of the Programme:

- Improved analytical thinking skills among school students and student teachers leading to enhanced problem-solving abilities and critical thinking.
- Increased engagement and motivation among students due to the interactive and challenging nature of the curriculum.
- Strengthened Mathematical foundations, as students learn to apply analytical thinking strategies to solve complex problems.
- Enhanced pedagogical skills of student teachers, resulting in more effective delivery of Mathematics education that stimulates analytical thinking.

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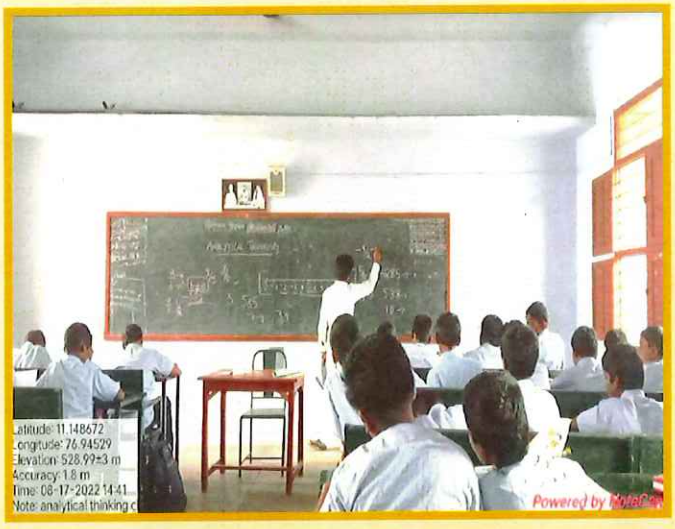
Glimpses

Stimulation of Analytical Thinking through Mathematics among School Students

Trainer Training Programme

Thinking Activity for Student teachers

Analytical Thinking Class



Analytical Thinking Class

Analytical Thinking Class

Analytical Thinking Class

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Stimulation of Analytical Thinking through Mathematics

Photographs of the Sessions

Stimulation of Analytical Thinking through Mathematics

Photographs of the Sessions

Stimulation of Analytical Thinking through Mathematics

Photographs of the Sessions

Stimulation of Analytical Thinking through Mathematics

Photographs of the Sessions

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Active Learning Programme

ACTIVE LEARNING METHODOLOGY

Sri Ramakrishna Mission Vidyalaya College of Education has initiated Active Learning Programmefor the students studying in Sri Ramakrishna Mission Vidyalaya Swami Shivananda Higher Secondary School (Girls Wing) on 13.07.2022. The students studying in classes 6th to 8thare engaged in Active learning classes by applying active learning strategies in the teaching learning process of Mathematics and Science subjects and extended to 9th students as well.

The students were engaged in Active learning classes once in a week for the time period of 90 minutes in each subject. So far students were engaged in 50 active learning classes in Mathematics and 50 classes in Science from the date of initiation.

Science subject is handled by Sri N. Rajesh Kumar, Assistant Professor in Biological Science and Mathematics is handling by Sri V. Eswaran, Assistant Professor in Mathematics. Faculty members use simulations, augmented reality, mixed reality problem-based activities and experiential learning in teaching subject-specific concepts that stimulate the interests of the students and made them active participation in the classes that enrich the higher-order thinking skills and students in the Active Learning Classes. In Active Learning methodology, students learn the concepts and core of the subjects practically by doing activities with lab articles, models and simulations like PhET, GeoGebra and OLABS etc.,

The Active Learning methodology is a modern classroom concept, which emphasis the 21st century skills among the students by adopting the following strategies, lab articles, models and ICT Tools.

Sample strategies used in Active Learning class,

- **Peer teaching activities**
- **Team Teaching**
- **Game-based learning**
- **Augmented Reality (AR)**
- **In-class demonstrations**
- **Jigsaw methods**
- **Simulation Based Learning**
- **Think-Pair-Share**
- **One minute paper**
- **Mixed Reality (MR)**
- **Group discussion**
- **Flipped Classroom**

Active Learning Techniques

Active learning engages students in learning, using activities such as reading, writing, discussion, or problem solving, which promote analysis, synthesis, and evaluation of class content. Active in-class learning also provides students with informal opportunities for feedback on how well they understood the material.

Brainstorming
Think – Pair-Share
Question and Answer Technique
Flipped Classroom
Concept Mapping
In-class Demonstrations
Short Cases/Scenarios
Simulation-based learning
Discussions
One Minute Paper
Exit Tickets
Think - Break Method
Virtual Reality
Augmented Reality
English Orthography – The English Writing System
Punctuated Lectures

Few of the Active Learning Techniques include

Scan the QR Code for additional Active Learning Techniques.

1. **Think-Pair-Share**

Students think about a particular question individually, then they form pairs to discuss their answers. The results are shared in a large classroom discussion. This process forces students to think individually, and then allows them to analyse and clarify their response collaboratively. It helps students organize prior knowledge, brainstorm, or summarize, and apply and integrate new information.

Works well with pre-planned questions.
Required Time: Typically, 5 – 10 minutes

2. **Brainstorming**

Brainstorming is a group problem-solving technique in which members spontaneously share ideas and solutions.Brainstorming is a group creativity technique by which efforts are made to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its members.It was first proposed by Alex Faickney Osborn in 1930.

Encourages creative thought.
Required Time: Typically, 2 - 3 minutes

3. **In-class Demonstrations**

In-classdemonstrations can be used to demonstrate the application of a concept. Students should be involved in the demonstration, and be required to reflect and analyse the process. For example, a teacher can have students predict the outcome of the demonstrations individually, and then have them discuss it in groups, or with the whole class. In-class demonstrations increase student enjoyment of the class.

Increases student understanding of concepts.
Required Time: Typically, 3 - 5 minutes

4. **One Minute Paper**

Students write a 1-2 minute response to an open question. This activity can be done at any time. If used at the end of class, students can write a response to provide the teacher with feedback on their understanding. A teacher might also include this activity throughout the class as a transition between topics, allowing them to reflect and summarize information, and identify what they do not understand, before moving on.

Typical questions - What is the most important thing you learnt today?
Summarize today's class in one sentence.
Required Time: Typically, 1-2 minutes

5. Discussions

Discussions can be useful both in-class and online, and can be adapted to any class size and to any discipline. In a discussion the instructor facilitates students' learning experience. Discussion requires students to think critically, and to evaluate their own and other's responses. Students can explore a diversity of perspectives, and build on each other's knowledge and understanding of the content.

Help students develop the skills of knowledge synthesis and integration.
Required Time: Typically, 3 - 5 minutes

6. Concept Mapping

A concept map is a way of representing or organizing knowledge.Concept maps identify the way we think, the way we see relationships between knowledge. The teacher who constructs concept maps for classes is interested in students understanding relationships between facts, not just "knowing" the facts.Teacher allows students time to think on their own before asking them to discuss with others and modify. Students may need coaching on concept mapping before they begin.

Concept maps show relationships between concepts
Required Time: Typically, 5 - 10 minutes

7. Question and Answer Technique

Questions are a simple yet effective way to promote interaction, and provide with a sense ofstudents' comprehension. Questions can be used in any discipline. A teacher can develop questions before class and decide when to ask them. Questions can be asked at any time, but it is important to vary the timing to prevent repetition/boredom. It is important to stimulate activity from the whole class and to acknowledge all answers, to support continued participation.

Helps to clarify students' thoughts
Required Time: Typically, 2 - 3 minutes

8. Short Cases/Scenarios

The use of case studies / scenarios allow students to apply the concepts learned in class to "real-life situations". This flexible method can be as simple as posing a single question to the class, to generate a discussion about how the students would approach a given scenario/situation. It can also be extensive, and require that students conduct additional research to effectively approach the scenario.

Students can briefly present their findings to the class, either in small groups, or in a paper/assignment.
Required Time: Typically, 5- 10 minutes

9. Flipped Classroom

The flipped classroom inverts the traditional learning experience. Lectures are shared outside of class time for individual review as homework, and classroom time is reserved for class discussion and interactive projects. Students complete the instructional portion at home on their own time and work on problem-solving during class time.Flipped classrooms accommodate different learning styles and speeds among students.

Flipped classrooms help students build higher-level skills at their own pace.
Required Time: Typically, 5 - 10 minutes

10. Exit Tickets

Exit Ticket is a formative assessment tool offering an effective way to end a class.Exit ticket ideas may focus on one specific concept or skill that students are expected to study that day.A good exit ticket may contain 3 to 5 questions on a piece of paper that students should be able to answer in just a few minutes before a unit ends.The responses can be used to inform the next step of the learning process.

Exit tickets provide feedback to the teacher about the class.
Required Time: Typically, 2 - 3 minutes

11. Think Break Method

A teacher asks a rhetorical question, and then allow 20 seconds for students to think about the problem beforeexplaining. This technique encourages students to take part in the problem-solving process even when discussion is not feasible. Having students write something down helps assure that they will in fact work on the problem.

Students are allowed to think about new information.
Required Time: Typically, 2 - 3 minutes

12. Simulation-based learning

Simulation-based learning is training in a virtual environment that mimics real -world
activities and scenarios. Students can apply practical information and skills not merely by reading theory books or listening to lectures but also by engaging in physical, hands-on activities. Learning in a controlled and safe setting gives students valuable hands-on experience that combines fundamental theoretical concepts with interactive, computer-simulated scenarios.

Access to high-value learning experiences.
Allows students to apply abstract concepts to active hands-on practice.

13. Virtual Reality

Virtual Reality refers to interactive content (images or videos) which enables the learner to explore the entire 360 degrees of a scene.Virtual reality can improve education by providing students with memorable and immersive experiences that would otherwise not be possible.Being able to see and experience extraordinary locations within the classroom is completely unique through VR and it is inspirational to students.

Students learn better through experience.
Virtual Reality has the ability to inspire.

14. Augmented Reality

Augmented reality (AR) is the integration of digital information with the user's environment in real time. Students can use real-world imagination to learn and understand difficult concepts. AR allows them to understand them better as they are experiencing concepts in the practical, real-time world. Educators can use AR in their classrooms to engage their students, reinforce information, and get them excited about learning.

AR is superimposing digital information onto real-world objects to create a 3D experience.

18. Punctuated Lectures

A punctuated lecture is a metacognitive strategy that helps students become aware of the behaviours they exhibit during a lecture. These behaviours (fidgeting, daydreaming, distraction) are unconsciously expressed and may impact student learning in the classroom. In becoming self-aware during class, students can begin to take control of their behaviours and be more accountable for their learning.

The Process

Listen – Stop – Reflect – Write - Feedback.

Listen: Students listen to a lecture.

Stop: After a designated time period, the teacher stops the lecture.

Reflect: Students are given time to reflect on their actions and thoughts during the lecture. They are prompted to think about what they were doing and analyse whether those behaviours helped or hindered their understanding of the topic.

Write: Students write down their insights. The information is processed and students determine how they can use the information to modify or change existing behaviours.

Feedback: Students give feedback to the teacher about what they have learned about themselves.

19. English Orthography – The English Writing System

The written form of communication is perhaps the most problematic area of language learning for non-native English speakers**.**

The letter 'x'

Rarely, a single letter is used to represent multiple sounds. A useful example of this is the letter 'x', which normally represents the two letters 'ks' when sounded together, for example in the word 'expect'.

The letter 'y'

When representing a vowel, the letter 'y' in final positions represents the sound 'ee' in words which have been borrowed from Greek. However, the letter 'i' is usually used to represent this sound when used in non-Greek words.

Homophone differentiation

Spelling may also be used to distinguish between English homophones (words with the same pronunciation but different meanings).

For example, the words 'hour' and 'our' are pronounced identically in some accents. However, they are distinguished from each other in English orthography by the addition of the letter 'h'.

20. Jigsaw Method

The jigsaw technique is a method of organizing classroom activity that makes students dependent on each other to succeed. The jigsaw technique is a cooperative learning method that brings about both individual accountability and achievement of the team goals. The process derives its name from the jigsaw puzzle because it involves putting the parts of the assignment together to form a whole picture.

It helps improve listening, communication, and problem-solving skills.

Required Time: Typically, 3 - 5 minutes

21. Puzzle-based learning (PBL)

Puzzle-based learning refers to the use of puzzles in order to train higher-order thinking skills like problem-solving. It is a new and emerging model of teaching critical thinking.Puzzles can also be a factor that helps retain and motivate students. The ultimate goal of puzzle-based learning is to lay a foundation for students to be effective problem solvers in the real world.

This approach encourages students to think about how they frame and solve problems not encountered at the end of the textbook chapter.

College of Education is involved in promoting active learning strategies among school students of Grades VI to IX of SRKV Swami Shivananda Higher Secondary School (Girls Wing). The detailed list of classes held ,

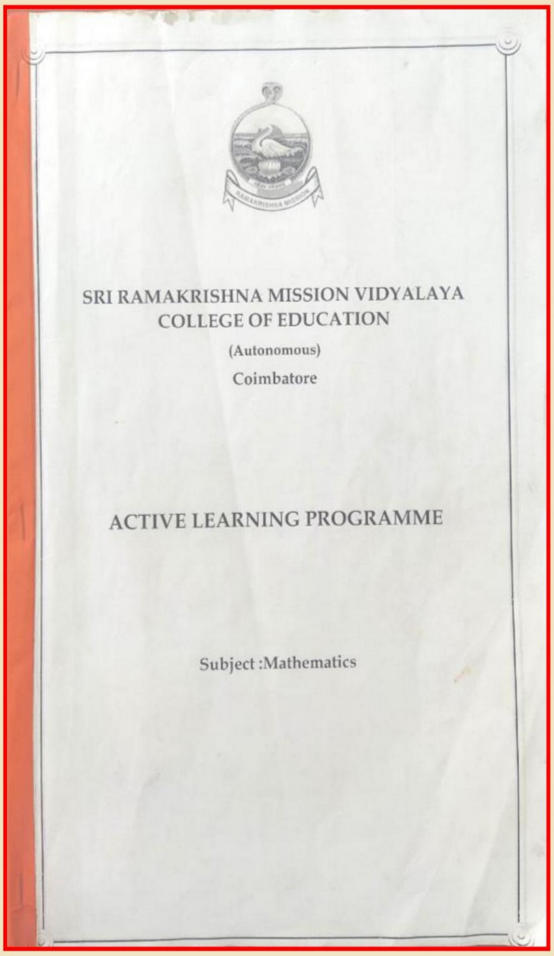
Date	Class	Subject	Faculty
01.08.2022	VI	Science	Sri. N. Rajesh Kumar
02.08.2022	VII	Mathematics	Sri. V. Eswaran
03.08.2022	VIII	Science	Sri. N. Rajesh Kumar
03.08.2022	VIII	Mathematics	Sri. V. Eswaran
04.08.2022	VII	Mathematics	Sri. V. Eswaran
08.08.2022	VI	Science	Dr. K. Rajamanickam Sri. N. Rajesh Kumar
10.08.2022	VII	Mathematics	Sri. V. Eswaran
10.08.2022	VII	Science	Dr. R. Ayyappan
11.08.2022	VII	Mathematics	Sri. V. Eswaran
11.08.2022	VI	Mathematics	Sri. V. Eswaran
16.08.2022	VIII	Science	Sri. N. Rajesh Kumar
17.08.2022	VII	Science	Sri. N. Rajesh Kumar
18.08.2022	VI	Mathematics	Sri. V. Eswaran
18.08.2022	VII	Mathematics	Sri. V. Eswaran
22.08.2022	VI	Science	Sri. N. Rajesh Kumar
23.08.2022	VIII	Science	Sri. N. Rajesh Kumar
25.08.2022	IX	Science	Sri. N. Rajesh Kumar
25.08.2022	VII	Mathematics	Sri. V. Eswaran
29.08.2022	IX	Mathematics	Sri. V. Eswaran
30.08.2022	VIII	Science	Sri. N. Rajesh Kumar
01.09.2022	IX	Science	Sri. N. Rajesh Kumar
02.09.2022	VII	Mathematics	Sri. V. Eswaran
07.09.2022	VIII	Mathematics	Sri. N. Rajesh Kumar

12.09.2022	IX	Mathematics	Sri. V. Eswaran
13.09.2022	VIII	Science	Sri. N. Rajesh Kumar
14.09.2022	VII	Science	Sri. N. Rajesh Kumar
	VIII	Mathematics	Sri. V. Eswaran
15.09.2022	VII	Mathematics	Sri. V. Eswaran
	IX	Science	Sri. N. Rajesh Kumar
21.09.2022	VIII	Mathematics	Sri. V. Eswaran
10.10.2022	IX	Mathematics	Sri. V. Eswaran
11.10.2022	VIII	Science	Sri. N. Rajesh Kumar
12.10.2022	VII	Science	Sri. N. Rajesh Kumar
	VIII	Mathematics	Sri. V. Eswaran
13.10.2022	VII	Mathematics	Sri. V. Eswaran
	IX	Science	Sri. N. Rajesh Kumar
17.10.2022	IX	Mathematics	Sri. V. Eswaran
18.10.2022	VIII	Science	Sri. N. Rajesh Kumar
	VII	Science	Sri. N. Rajesh Kumar
19.10.2022	VII	Mathematics	Sri. V. Eswaran
	IX	Science	Sri. N. Rajesh Kumar
20.10.2022	VII	Mathematics	Sri. V. Eswaran
	IX	Science	Sri. N. Rajesh Kumar
26.10.2022	VII	Mathematics	Sri. V. Eswaran
	IX	Science	Sri. N. Rajesh Kumar
27.10.2022	VII	Mathematics	Sri. V. Eswaran
	IX	Science	Sri. N. Rajesh Kumar
31.10.2022	IX	Mathematics	Sri. V. Eswaran
01.11.2022	VIII	Science	Sri. N. Rajesh Kumar
31.10.2022 07.11.2022	IX	Mathematics	Sri. V. Eswaran

01.11.2022 08.11.2022 15.11.2022 22.11.2022	VIII	Science	Sri. N. Rajesh Kumar
02.11.2022 09.11.2022 16.11.2022	VII	Science	Sri. N. Rajesh Kumar
02.11.2022 09.11.2022 16.11.2022	VIII	Mathematics	Sri. V. Eswaran
03.11.2022 10.11.2022 17.11.2022	VII	Mathematics	Sri. V. Eswaran
03.11.2022 10.11.2022 17.11.2022	IX	Science	Sri. N. Rajesh Kumar
30.11.2022	VIII	Mathematics	Sri. V. Eswaran
01.12.2022	VII	Mathematics	Sri. V. Eswaran
05.12.2022	IX	Science	Sri. N. Rajesh Kumar
08.12.2022	VII	Mathematics	Sri. V. Eswaran
12.12.2022	IX	Mathematics	Sri. V. Eswaran
03.01.2023	VIII	Science	Sri. N. Rajesh Kumar

ACTIVE LEARNING METHODOLOGY

Log Book



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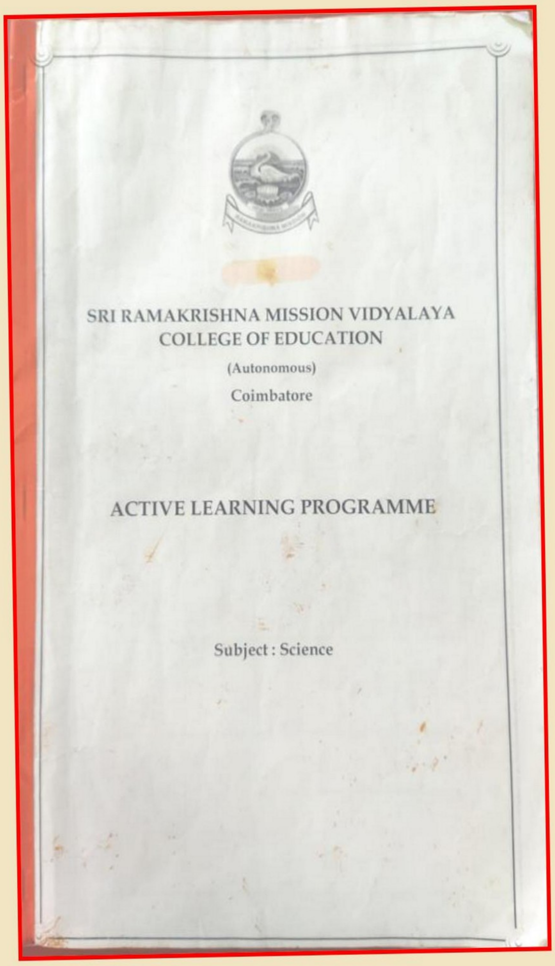
ACTIVE LEARNING PROGRAMME

Subject :Mathematics



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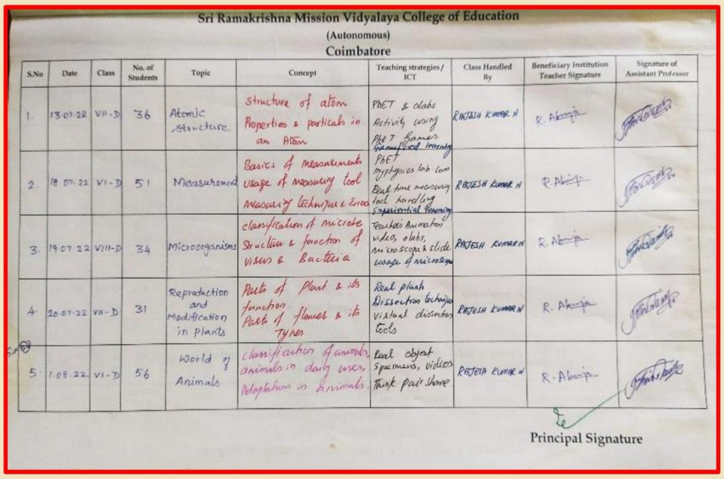
ACTIVE LEARNING PROGRAMME

Subject : Science



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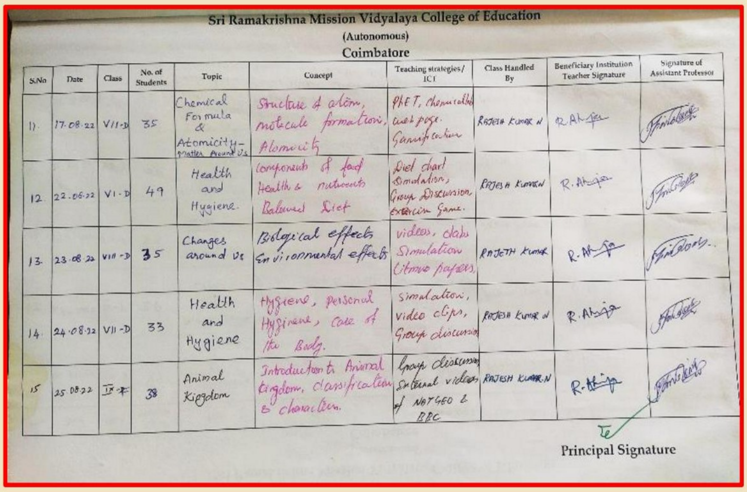
Coimbatore

S.No	Date	Class	No. of Students	Topic	Concept	Teaching strategies / ICT	Class Handled By	Beneficiary Institution Teacher Signature	Signature of Assistant Professor
1.	13.07.22	VII-D	36	Atomic Structure	Structure of atom Properties & particals in an Atom	PhET & olabs Activity using PhET Games Gamified learning	RAJESH KUMAR N	R. [illegible]	[illegible]
2.	18.07.22	VI-D	51	Measurement	Basics of measurements usage of measuring tool measuring technique & Error	PhET myphysics lab.com Real time measuring tool handling Experiential learning	RAJESH KUMAR N	R. [illegible]	[illegible]
3.	19.07.22	VIII-D	34	Microorganisms	classification of microbe Structure & function of virus & Bacteria	Teachers Animation video, olabs, microscope & slide usage of microscope	RAJESH KUMAR N	R. [illegible]	[illegible]
4.	20.07.22	VII-D	31	Reproduction and Modification in Plants	Parts of Plant & its function Parts of flower & its Types	Real plants Dissection technique Virtual dissection tools	RAJESH KUMAR N	R. [illegible]	[illegible]
5.	1.08.22	VI-D	56	World of Animals	classification of animals animals in daily uses, Adaptations in Animals.	Real object Specimens, videos Think pair share	RAJESH KUMAR N	R. [illegible]	[illegible]

Principal Signature



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Coimbatore

S.No	Date	Class	No. of Students	Topic	Concept	Teaching strategies / ICT	Class Handled By	Beneficiary Institution Teacher Signature	Signature of Assistant Professor
11.	17.08.22	VII-D	35	Chemical Formula & Atomicity - matter around us	Structure of atom, molecule formation, Atomicity	PhET, chemicalbk web page. Gamification	RAJESH KUMAR N	R. [illegible]	[illegible]
12.	22.08.22	VI-D	49	Health and Hygiene.	components of food Health & nutrients Balanced Diet	Diet chart Simulation, Group Discussion, exercise Game.	RAJESH KUMAR N	R. [illegible]	[illegible]
13.	23.08.22	VIII-D	35	Changes around us	Biological effects Environmental effects	videos, olabs Simulation Litmus papers,	RAJESH KUMAR	R. [illegible]	[illegible]
14.	24.08.22	VII-D	33	Health and Hygiene	Hygiene, personal Hygiene, care of the Body.	simulation, video clips, Group discussion	RAJESH KUMAR N	R. [illegible]	[illegible]
15	25.08.22	IX-[illegible]	38	Animal Kingdom	Introduction to Animal kingdom, classification & characters.	Group discussion External videos of NATGEO & BBC	RAJESH KUMAR.N	R. [illegible]	[illegible]

Principal Signature

ACTIVE LEARNING METHODOLOGY

Log Book

Science

Sri Ramakrishna Mission Vidyalaya College of Education
(Autonomous)
Coimbatore

S.No	Date	Class	No. of Students	Topic	Concept	Teaching strategies / ICT	Class Handled By	Beneficiary Institution Teacher Signature	Signature of Assistant Professor
21	11.10.2022	VIII D	37	Movement in Animals	Difference b/w Movement & Locomotion, movements of following type specimens. Earth worm, Birds, Snake, fish Cockroach & human	Experiential learning through Activities, PPt Quiz for reinforcement	RAJESH KUMAR N	R. Alagu	
22	12.10.2022	VII-D	32	Cell biology	Types of cell, Diseases Cell organelles and Structure of Cell	hands on practice with microscope and Group Discussion, Inquiry method	RAJESH KUMARN	R. Alagu	
23	13.10.2022	IX-F	41	Organ system in Animals	Organ systems in human beings, Digestive system parts & function.	Learning by doing. parts of body dissection in model, videos of human anatomy	RAJESH KUMAR N	R. Alagu	
24	25.07.2022	VI-D	54	Plants Around Us	Types of plants parts of plants and Utilization of plant in Daily life.	Real specimen Experiential learning Dissection & analysis of parts, Four study	RAJESH KUMAR N	R. Alagu	
25	18.10.2022	VIII-D	37	Movement in humans	Types of movement Organisation, & in human, skeleton system, Joints function.	Group Discussion Experiential learning Real skeleton model is used by students	RAJESH KUMAR N	R. Alagu	

Principal Signature

Mathematics

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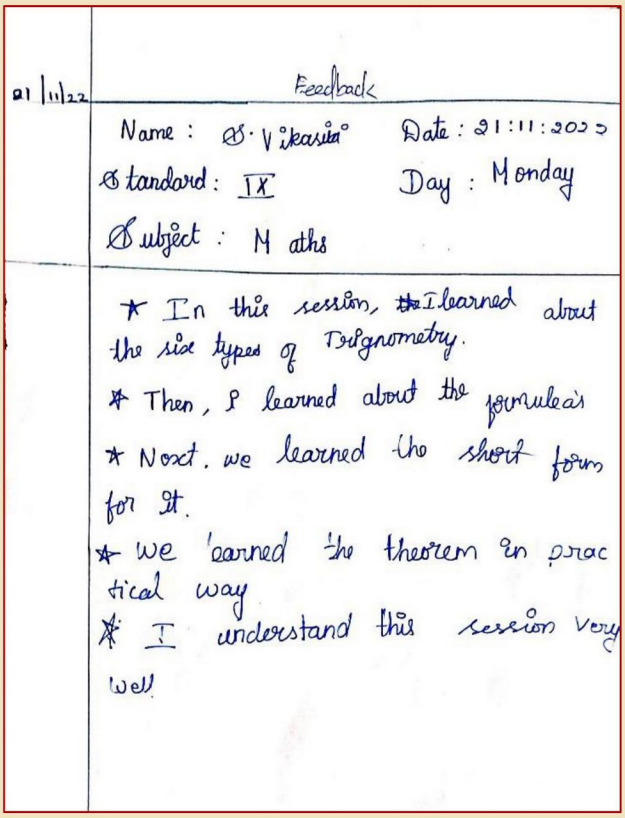
S.No	Date	Class	No. of Students	Topic	Concept	Teaching strategies / ICT	Class Handled By	Beneficiary Institution Teacher Signature	Signature of Assistant Professor
01	13.7.22	VIII	34	Measurement	Area & perimeter of regular 2D shapes / Irregular 2D shapes	online Tools of Didax, Mathigon, Toy theatre	V. ESWARAN	K. Ani 13/7/22	13/7/22
02	14.7.22	VI	56	Introduction to Algebra	Numerical & Geometrical pattern formation	Lab tools, Mathigon, Toy theatre	V. ESWARAN		14/7/22
03	14.7.22	VII	38	Measurement	Area & perimeter of Square & Rectangle & irregular shapes	Math learning centre app. Geogebra, Geoboard.	V. ESWARAN		14/7/22
04	20.7.22	VIII	34	Measurement	Area of circle, semicircle, Quadrent, Sector, Center angle of sector.	Group work Learning by doing. & Geogebra, Online Geoboard	V. ESWARAN	K. Ani 20/7/22	20/7/22
05	21.7.22	VI	56	Introduction to Algebra.	Variables & Constants. Algebraic Statements	Play way, Group activity AR - 3D views	V. ESWARAN		21/7/22

ACTIVE LEARNING METHODOLOGY

Students Feedback



21/11/22

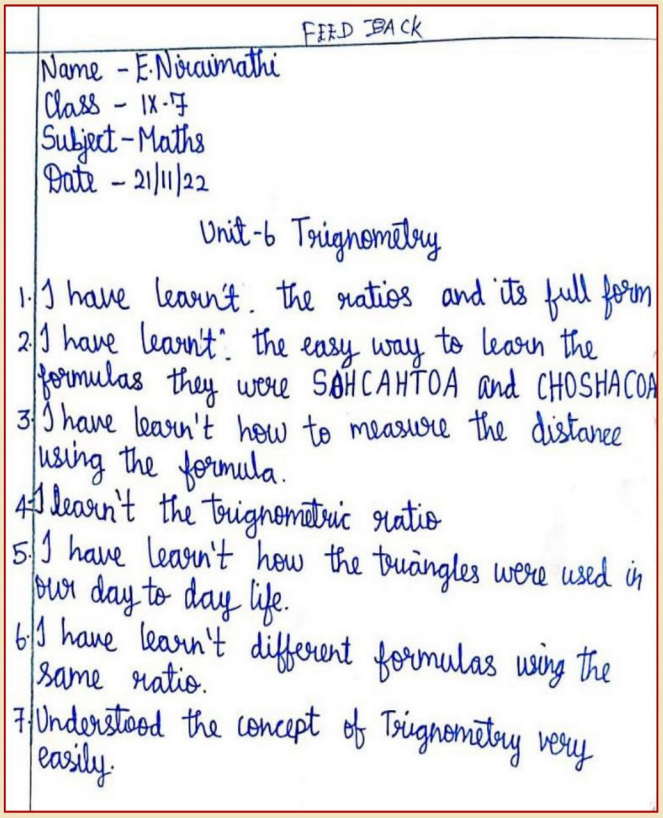
Feedback

Name : S. Vikasini Date : 21:11:2022

Standard : IX Day : Monday

Subject : Maths

* In this session, ~~the~~ I learned about the six types of Trignometry.
* Then, I learned about the formulea's
* Next, we learned the short form for it.
* we learned the theorem in practical way
* I understand this session very well



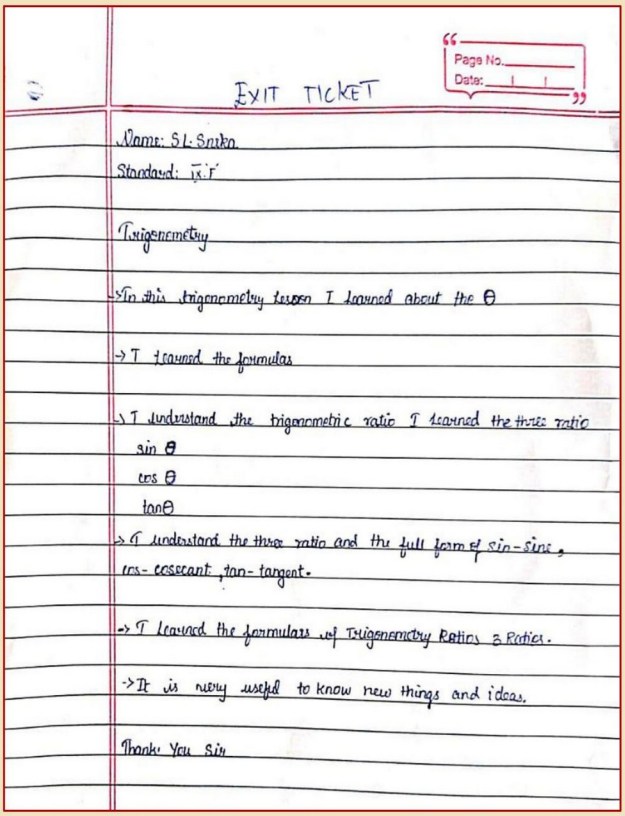
FEED BACK

Name - E.Nivaimathi
Class - IX-F
Subject - Maths
Date - 21/11/22

Unit-6 Trignometry

1. I have learn't the ratios and its full form
2. I have learn't the easy way to learn the formulas they were SOHCAHTOA and CHOSHACOA
3. I have learn't how to measure the distance using the formula.
4. I learn't the trignometric ratio
5. I have learn't how the triangles were used in our day to day life.
6. I have learn't different formulas using the same ratio.
7. Understood the concept of Trignometry very easily.

Students Exit Tickets



EXIT TICKET

Page No.
Date:

Name: S.L.Smitha
Standard: IX-F

Trigonometry

-> In this trigonometry lesson I learned about the θ

-> I learned the formulas

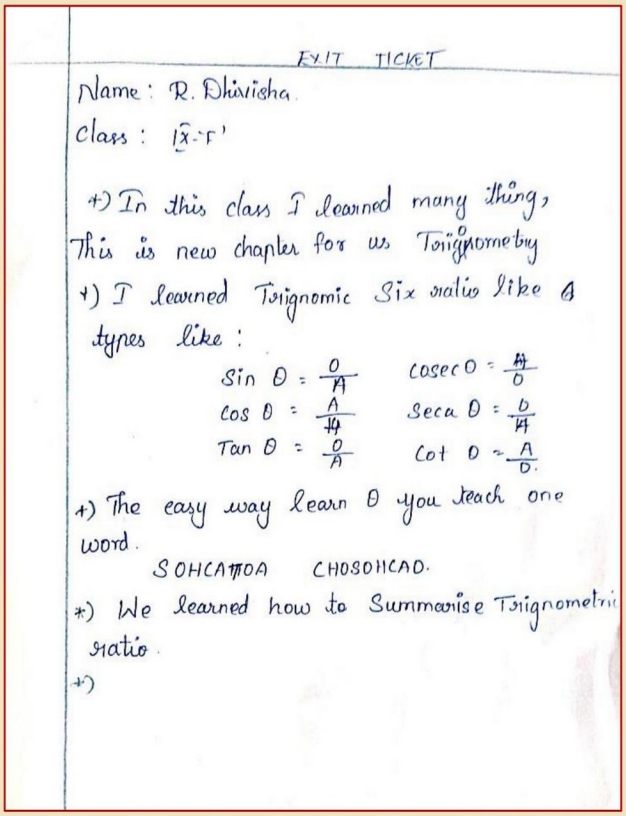
-> I understand the trignometric ratio I learned the three ratio
sin θ
cos θ
tanθ

-> I understand the three ratio and the full form of sin-sine, cos-cosecant, tan-tangent.

-> I learned the formulars of Trigonometry Ratios & Ratios.

-> It is very useful to know new things and ideas.

Thank You Sir



EXIT TICKET

Name : R. Dhivisha.
Class : IX-F

+) In this class I learned many thing, This is new chapter for us Trignometry

+) I learned Trignomic Six ratio like 6 types like :

$\sin\theta = \frac{O}{H}$ $\operatorname{cosec}\theta = \frac{H}{O}$

$\cos\theta = \frac{A}{H}$ $\sec\theta = \frac{O}{H}$

$\tan\theta = \frac{O}{A}$ $\cot\theta = \frac{A}{O}$

+) The easy way learn θ you teach one word.

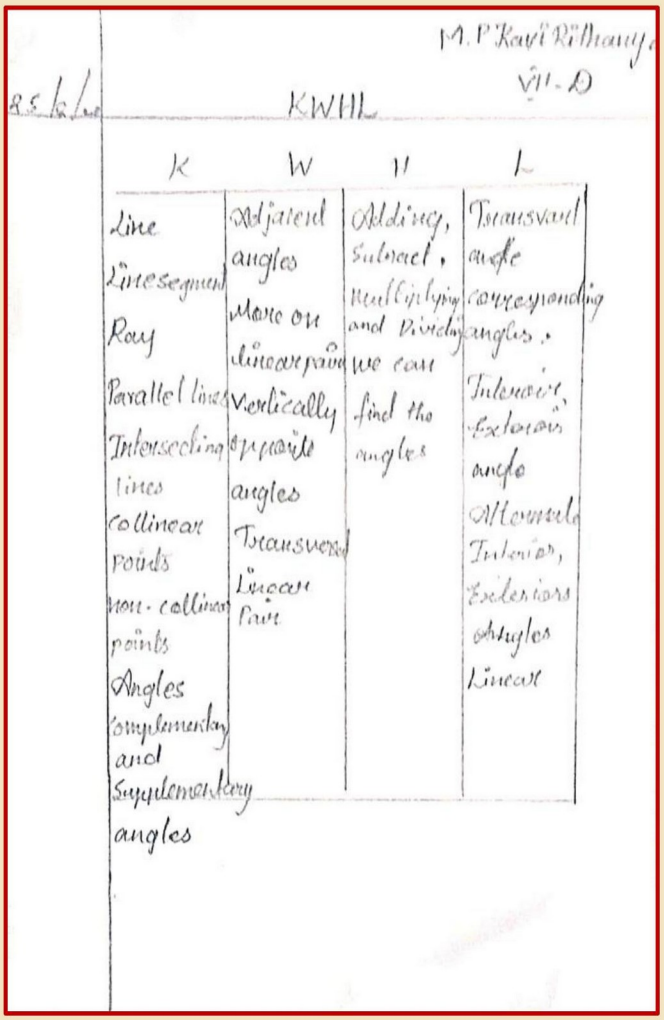
SOHCAHTOA CHOSOHCAD.

*) We learned how to Summarise Trignometri ratio.

+)

ACTIVE LEARNING METHODOLOGY

Students – KWHL Chart

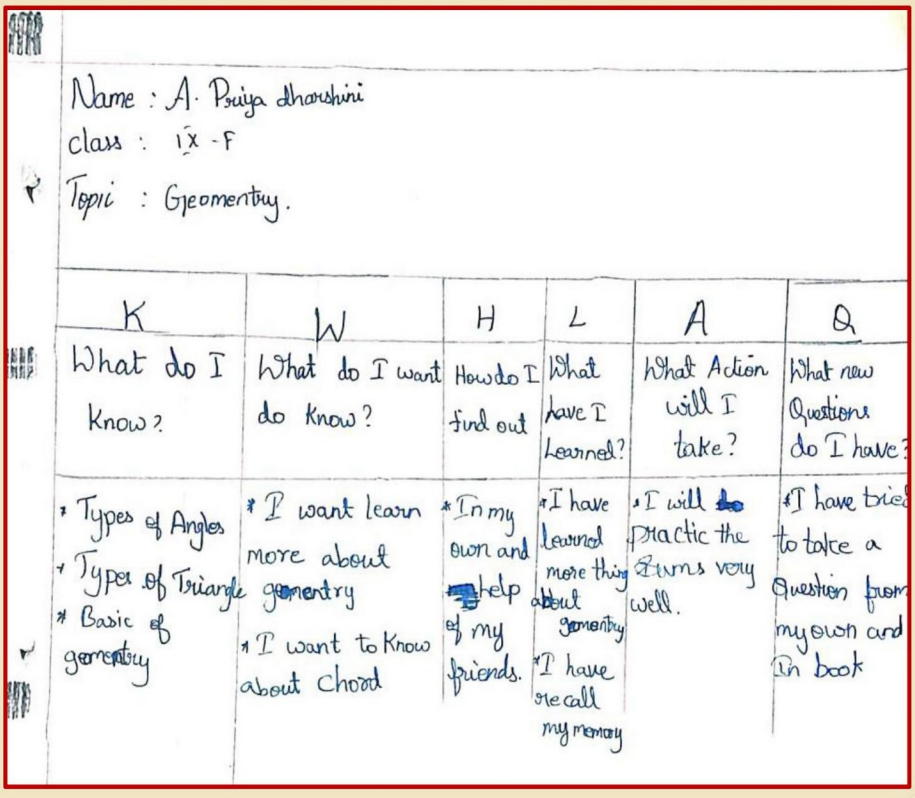


M. P. Kavi Rithanya
VII - D

KWHL

K	W	H	L
Line Linesegment Ray Parallel lines Intersecting lines collinear points non-collinear points Angles complementary and Supplementary angles	Adjatent angles More on linear pair Verticallly opposite angles Transversal Linear Pair	Adding, Subract, Multiplying and Dividing we can find the angles	Transvarl angle corresponding angles. Interior, Exterior angle Alternate Interior, Exteriors angles Linear

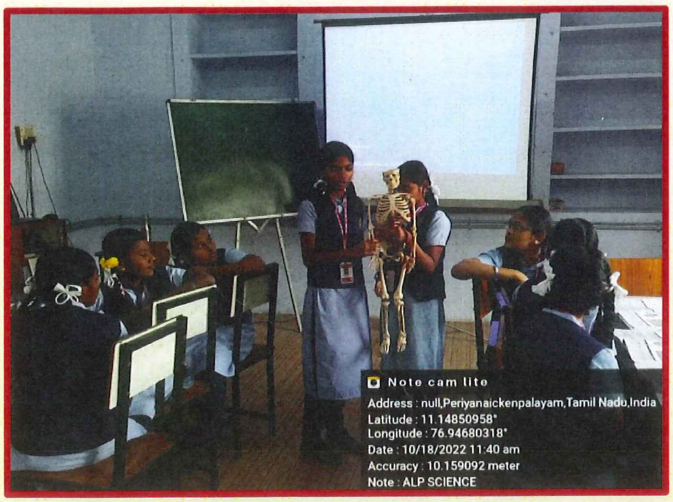
Students – KWHLAQ Chart



Name : A. Priya dharshini
class : IX - F
Topic : Geomentry.

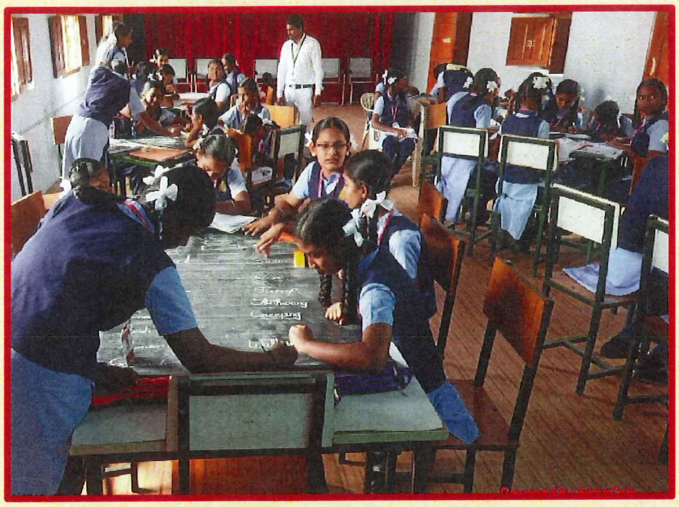
K	W	H	L	A	Q
What do I Know?	What do I want do Know?	How do I find out	What have I Learned?	What Action will I take?	What new Questions do I have?
* Types of Angles * Type of Triangle * Basic of geometry	* I want learn more about geometry * I want to Know about chord	* In my own and help of my friends.	* I have learned more thing about geometry * I have recall my memory	* I will practic the sums very well.	* I have tried to take a Question from my own and in book

ACTIVE LEARNING PROGRAMME



Think –Pair - Share

Simulation Based Learning



Discussion

Group Activity

Game Based Learning

Real Time Activity

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