PROGRAMME REPORT ON 21ST CENTURY SKILLS AND ITS IMPLICATION IN THE CLASSROOM MEGHALAYA, 2024-2025

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Introduction

In an increasingly interconnected and technology-driven world, the importance of equipping students with 21st-century skills cannot be overstated. These skills, including critical thinking, problem-solving, digital literacy, and effective communication, are essential for fostering adaptability, innovation, and lifelong learning. They empower individuals to navigate both personal and professional challenges successfully.

Rooted in the principles of the National Education Policy (NEP) 2020, this project aims to bridge the gap between traditional teaching methods and the evolving demands of the modern world. By prioritising student-centric learning, experiential activities, and skill-based education, the initiative seeks to create an engaging and dynamic learning environment. This approach not only enhances academic achievement but also equips students with the tools needed to thrive in an ever-changing global landscape, fostering responsible, informed, and future-ready citizens.

As part of Bhoomi's approach to the Programme on 21st Century Skills, two key pillars form the foundation of this initiative: Teacher Training and School-Based Interventions. The Training component focuses on empowering educators with both theoretical knowledge and practical strategies to effectively integrate 21st-century skills into classroom practices. Simultaneously, School-Based Interventions provide a platform for the practical application of these strategies, creating an environment where learning is both meaningful and impactful.

At Bhoomi Educational Consultancy, Project-Based Learning (PBL) serves as a key strategy to integrate 21st Century Skills into everyday classroom lessons. By designing projects that are aligned with the syllabus and incorporating 21st Century Skills, Bhoomi ensures that each topic becomes hands-on, engaging, and experiential without adding extra pressure on teachers.

Through PBL, students are encouraged to actively participate in their learning journey, fostering critical thinking, problem-solving, collaboration, communication, and creativity. These projects are carefully crafted to connect theoretical concepts with real-world applications, transforming the classroom into an environment where students can explore, experiment, and reflect.

This approach not only helps students gain a deeper conceptual understanding but also equips them with the higher-order thinking skills needed to thrive in an ever-evolving world. For teachers, the integration of PBL into regular lessons provides a structured yet flexible framework to facilitate meaningful learning experiences without disrupting the syllabus timeline.

By embedding 21st Century Skills into project-based activities, Bhoomi ensures that learning becomes interactive, student-centered, and impactful.

Together, these elements create a scalable and sustainable framework, driving long-term educational transformation and preparing students to face future challenges with confidence and resilience.

History of 21st Century Skills

The concept of 21st-century skills emerged in the late 1990s and early 2000s in response to rapid advancements in technology, globalization, and shifts in the global economy. Educational leaders, policy makers, and researchers recognised the limitations of traditional teaching methods in preparing students for an increasingly digital and interconnected world.

1. Emergence in the Late 20th Century (1980s–1990s)

- As the world transitioned from the industrial age to the information age, there was growing recognition that traditional education systems, designed for factory work and rote learning, were no longer sufficient.
- Advances in technology, globalisation, and automation began reshaping economies and workplaces, creating demand for new skill sets.
- Educational experts and policymakers began advocating for skills beyond memorisation, focusing on critical thinking, problem-solving, and communication.

2. Technological Boom (1990s–2000s)

- The rapid spread of the internet and digital tools revolutionised access to information and communication.
- In 1996, the International Society for Technology in Education (ISTE) developed the first set of standards focusing on integrating technology into education.
- Terms like digital literacy and media literacy became central to discussions about modern education.

3. 21st Century Skills Framework (2002–2009)

- In 2002, the Partnership for 21st Century Skills (P21) was founded in the United States, marking a key milestone.
- P21 developed a framework emphasising four core areas, known as the 4Cs:
  - Critical Thinking
  - Communication
  - Collaboration
  - Creativity

These skills were seen as essential for preparing students for the workforce, higher education, and active citizenship.

4. Integration into Global Education Policies (2010s)

- Global organisations, including UNESCO, OECD, and the World Economic Forum, began championing 21st Century Skills in education policies.
- Reports like the OECD's PISA assessments and UNESCO's Education for Sustainable Development (ESD)framework emphasised the importance of these skills.
- Finland, Singapore, and Canada emerged as global leaders in embedding 21st Century Skills into their national education systems.

5. Adoption in National Education Policies (2020s)

- Countries worldwide, including India (via NEP 2020), have incorporated 21st Century Skills into their education frameworks.
- The focus shifted towards project-based learning, interdisciplinary studies, and student-centered teaching methods.
- Digital platforms and online learning tools became essential for imparting 21st Century Skills, especially after the COVID-19 pandemic accelerated the adoption of digital education.

6. Key Focus Areas Today

- Lifelong Learning: Preparing individuals to adapt to rapidly changing careers.
- Emotional Intelligence: Recognizing the importance of self-awareness, empathy, and resilience.
- Global Citizenship: Encouraging students to think globally and act responsibly.
- Technological Literacy: Ensuring students can use technology ethically and effectively.

Why 21st Century Skills Matter Today

- These skills help students adapt to rapidly evolving job markets.
- They foster innovation and entrepreneurial thinking.
- They prepare students to address global challenges like climate change, inequality, and technological disruption.

PM SHRI Initiative in Meghalaya

The PM SHRI School initiative, a centrally sponsored scheme by the Government of India, aims to transform over 14,500 schools managed by Central Government, State/UT Governments, local bodies, Kendriya Vidyalayas (KVS), and Navodaya Vidyalayas (NVS). These schools are designed to foster an inclusive and welcoming environment where every student feels safe, valued, and inspired to learn. They will offer a stimulating atmosphere, equipped with modern infrastructure and comprehensive learning resources, ensuring holistic development for all students.

PM SHRI Schools to nurture students into engaged, productive, and responsible citizens, aligned with the vision of the National Education Policy (NEP) 2020. The emphasis is on equitable and inclusive education, combining 21st-century skills with the regular curriculum. With an estimated 20 lakh students set to directly benefit, the PM SHRI Schools aim to set benchmarks for quality education and promote uniform policies, practices, and implementation strategies across the education system.

The successful practices and insights from these schools will be replicated and adapted in other schools nationwide.

In Meghalaya, the focus is on empowering To achieve this, a specialised teacher training program on 21st-century learning and information skills has been introduced, enabling effective classroom implementation and preparing students for future challenges and opportunities.

Part 1: Training Component

The Training Component of the 21st Century Skills Programme is designed to equip teachers with the necessary skills, knowledge, and strategies to effectively integrate 21st-century competencies into their teaching practices. Recognizing teachers as the cornerstone of educational transformation, the training aims to build their capacity as facilitators of modern learning environments.

The training focuses on a blended learning approach that combines theoretical insights with hands-on activities, group discussions, role plays, and digital tool integration. It emphasises developing core competencies such as communication, collaboration, critical thinking, creativity, and digital literacy.

Key highlights of the training include:

- Building teacher proficiency in designing and implementing student-centered lesson plans.
- Encouraging the use of technology tools and digital resources in classrooms.
- Providing strategies for fostering life skills, adaptability, and leadership among students.
- Creating a platform for peer learning and collaboration among educators.

Through a structured training design, this component ensures that teachers are well-prepared to create engaging and inclusive classrooms where students can thrive in an ever-evolving global landscape.

The subsequent sections of this report delve into the objectives, methodologies, modules, sessions, and outcomes of the training, providing a comprehensive overview of its implementation and impact.

1.1 Objectives of the Training

- Equip teachers with Communication, Collaboration, Critical Thinking, and Creativity (4 Cs).
- Enhance proficiency in Information, Media, and Technology Literacy (IMT).
- Develop essential Life Skills (FLIPS): Flexibility, Leadership, Initiative, Productivity, and Social Responsibility.
- Enable teachers to integrate project-based learning and digital tools into classroom practices.
- Build teacher capacity for innovative and interactive teaching methods aligned with NEP 2020.

1.2 Training Design and Methodology

The training programme was designed to be interactive, activity-based, and reflective, ensuring active participation and skill acquisition among teachers.

·Date: 21st-22nd October 2024

·Venue: Pastoral Centre, Cleve Colony, Shillong

·Participants: 40 teachers from PM SHRI Schools

·Trainers: Mr. Dolreich Mawlong and Mr. Joseph Lalrinsanga

·Training Techniques:

- Presentations
- Group Discussions
- Role Plays
- Brainstorming Sessions
- Digital Tool Demonstrations
- Reflection and Feedback Circles

1.3 Training Modules

The training was structured into four key modules to cover essential aspects of 21st-century skills:

Module 1: Learning Skills (4 Cs)

- ·Communication: Teachers were trained on effective verbal, written, and non-verbal communication, with emphasis on clarity, active listening, and body language.
- Collaboration: Activities focused on building teamwork, mutual respect, and conflict resolution among peers and students.
- Critical Thinking: Teachers explored decision-making frameworks, problem-solving strategies, and logical reasoning exercises.
- Creativity: Practical exercises encouraged innovative thinking, brainstorming, and out-of-the-box solutions for classroom challenges.

Module 2: Literacy Skills (IMT)

- Information Literacy: Techniques for sourcing, evaluating, and utiliing credible information in lesson planning.
- Media Literacy: Understanding media influence, critically analying digital content, and integrating media tools in teaching.
- Technology Literacy: Hands-on training on smartboards, projectors, online collaboration tools, and digital classroom platforms.

Module 3: Life Skills (FLIPS)

- Flexibility: Adapting lesson plans and teaching styles to diverse classroom environments.
- Leadership: Building leadership qualities to inspire and guide students.
- Initiative: Encouraging proactive classroom engagement and problem-solving.
- Productivity: Time management and prioritiation strategies for lesson execution.
- Social Responsibility: Promoting empathy, ethics, and community engagement in classroom activities.

Module 4: Action Plan Development

- Teachers collaborated to design classroom action plans aligned with 21st-century skills.
- Focused on measurable objectives and clear timelines.
- Created lesson plans integrating project-based learning approaches.
- Emphasied cross-curricular connections to promote holistic education.

1.4 Key Training Activities

- Group Projects: Teachers collaborated on projects focusing on classroom integration of key skills. Example projects included Germination of Seeds, Living and Non-Living Things, and Modes of Transportation.
- Hands-On Activities: Teachers participated in simulated classroom scenarios to practice real-life implementation of skills.
- Digital Tool Exploration: Interactive workshops on smartboards, multimedia resources, and online platforms.
- Role-Play Exercises: Participants engaged in role-plays to simulate classroom challenges and find collaborative solutions.
- Brainstorming Sessions: Teachers brainstormed strategies to address specific classroom issues and foster creativity among students.
- Lesson Plan Development: Teachers designed and presented project-based lesson plans focused on integrating 21st-century skills into core subjects.
- Reflection and Feedback Circles: Daily reflection sessions allowed participants to share insights, address challenges, and seek guidance.
- Peer Learning Activities: Opportunities for teachers to share best practices and innovative classroom strategies.
- Activity-Based Engagement: Interactive energisers and team-building activities were conducted to foster collaboration and participation.

- Case Study Discussions: Real-world classroom scenarios were discussed to identify practical solutions and approaches.
- Follow-Up Plan Creation: Teachers developed personalised follow-up action plans for implementing the training outcomes in their schools.

1.5 Description of the sessions

Session 1: Introduction to 21st Century Skills

- Objective: Introduce teachers to the foundational principles of 21st-century skills and their relevance in modern education.
- Activity: Participants were shown an image depicting a futuristic classroom scenario and asked to share their interpretations.
- Discussion Points:
  - The role of adaptability, technology, and innovation in education.
  - Identifying the gaps in traditional teaching methods and ways to address them.
- Trainer Insight: Emphasis was placed on preparing students for an evolving world through skills like critical thinking, problem-solving, collaboration, and creativity.
- Interactive Exercise: Participants shared challenges they face in integrating these skills into their classrooms and brainstormed potential solutions.
- Takeaways: A collective understanding of the importance of 21st-century skills and actionable steps to integrate them into daily teaching practices.

Session 2: Collaboration and Communication

- ·Objective: Enhance teachers' ability to foster collaboration and effective communication in the classroom.
- ·Activity: Participants engaged in a group puzzle-solving exercise, requiring clear communication and teamwork.
- ·Discussion Points:
  - Importance of active listening and clarity in communication.
  - Strategies for promoting teamwork and collective problem-solving in classroom settings.

- Trainer Insight: Trainers emphasised creating an inclusive and respectful classroom environment that encourages open communication and peer collaboration.

- Interactive Exercise: Role-play activities were conducted where participants assumed student and teacher roles to practice effective communication strategies.

- Takeaways: Teachers gained practical strategies to improve student engagement through collaborative projects and enhance classroom communication dynamics.

Session 3: Critical Thinking and Problem Solving

- Objective: Equip teachers with strategies to develop critical thinking and problem-solving abilities in students.
- Activity: Participants engaged in a scenario-based problem-solving exercise where they analysed classroom situations and proposed logical solutions.
- Discussion Points:
  - The importance of asking the right questions to stimulate critical thinking.
  - Identifying real-world problems that can be integrated into lesson plans.
- Trainer Insight: Trainers emphasised the role of structured questioning techniques and logical reasoning frameworks in classroom discussions.
- Interactive Exercise: Participants were tasked with creating lesson activities focused on problem-based learning (PBL).
- Takeaways: Teachers gained tools and methodologies to foster analytical skills, decision-making abilities, and creative problem-solving among students.

Session 4: Creativity and Innovation

- Objective: Inspire teachers to foster creativity and innovation in classroom activities and lesson delivery.
- Activity: Participants engaged in a creative classroom challenge, where they designed an innovative lesson plan using limited classroom resources.
- Discussion Points:
  - The role of imagination and innovation in solving real-world problems.
  - Encouraging students to think beyond textbooks and conventional learning approaches.
- Trainer Insight: Trainers emphasised creating an environment where students feel safe to experiment, take risks, and express creative ideas.
- Interactive Exercise: Teachers worked in groups to create low-cost, interactive teaching aids for science, math, and language lessons.
- Takeaways: Teachers gained strategies to foster imagination, creativity, and risk-taking in students, enhancing engagement and deeper learning outcomes.

Session 5: Recap of Day 1 & Presentations

- Objective: Reinforce key learnings from the previous sessions and provide participants an opportunity to present their insights and lesson plans.
- Activity: Participants engaged in group presentations, showcasing their learnings and lesson plans designed during Day 1.
- Discussion Points:
  - Reflection on the application of 4 Cs (Communication, Collaboration, Critical Thinking, Creativity) in their lesson plans.
  - Sharing best practices and addressing common challenges.
- Trainer Insight: Trainers provided constructive feedback on the presentations, emphasising clarity, alignment with objectives, and practical implementation.
- Interactive Exercise: Open forum discussion where participants could ask questions, clarify doubts, and exchange ideas.
- Takeaways: Participants gained peer feedback and actionable insights to refine their lesson plans for better classroom execution.

Session 6: Digital Literacy

- Objective: Equip teachers with the knowledge and skills to effectively use digital tools and platforms in classroom teaching.
- Activity: Participants explored various digital tools and online platforms for lesson planning, interactive activities, and student assessment.
- Discussion Points:
    - Importance of digital literacy in modern education.
    - Identifying credible digital resources for classroom use.
    - Addressing digital safety and security in an educational setting.
- Trainer Insight: Trainers emphasised the importance of creating a digitally inclusive environment and demonstrated examples of successful digital tool integration in lessons.
- Interactive Exercise: Teachers practiced using smartboards, multimedia presentations, and online collaboration platforms in mock classroom settings.
- Takeaways: Participants gained hands-on experience with educational technology tools and strategies for incorporating digital literacy into their daily teaching practices.

Session 7: Life Skills for the 21st Century

- ·Objective: Equip teachers with strategies to foster essential life skills such as Flexibility, Leadership, Initiative, Productivity, and Social Responsibility (FLIPS) in their classrooms.
- Activity: Participants engaged in a scenario-based role-play exercise, addressing real-life classroom situations requiring life skills.
- Discussion Points:
    - Importance of empathy, adaptability, and initiative in classroom interactions.
    - Strategies for fostering resilience and responsibility among students.
    - Integrating life skills seamlessly into lesson plans.
- Trainer Insight: Trainers emphasised that life skills are essential for holistic student development and play a critical role in building self-confidence, teamwork, and leadership.
- Interactive Exercise: Teachers worked in groups to create mini-projects that integrated life skills into their subject-specific lesson plans.
- Takeaways: Participants gained clarity on how to nurture life skills in students through regular classroom interactions, projects, and reflective exercises.

Session 8: Summation

- Objective: Provide an overview and reflection on the training programme, highlighting key learnings and actionable insights.
- Activity: Participants engaged in an open-floor discussion, sharing their reflections on the training sessions and key takeaways.
- Discussion Points:
    - Reflection on the implementation strategies for 21st-century skills in classroom teaching.
    - Identifying individual and collective challenges faced during training sessions.
    - Sharing success stories and innovative ideas from group activities.
- Trainer Insight: Trainers summarised the major themes covered throughout the training, reinforcing the importance of continuous professional development and collaboration.
- Interactive Exercise: Participants drafted individual action plans for integrating the learned skills into their classroom practices.
- Takeaways: Teachers left with a clear roadmap for implementation, confidence in using new tools and strategies, and a shared commitment to fostering 21st-century skills in their students.

1.6 Participant Feedback

The Participant Feedback captures the reflections, insights, and suggestions shared by teachers and stakeholders who actively participated in the 21st Century Skills Programme. Feedback plays a critical role in understanding the effectiveness of training modules, identifying areas of improvement, and gauging participant satisfaction.

This section aims to:

- Highlight key strengths of the training sessions as perceived by participants.
- Identify challenges faced by teachers during training and implementation.
- Document practical suggestions and innovative ideas shared by participants.
- Provide insights into the immediate and long-term impact of the training on classroom practices.

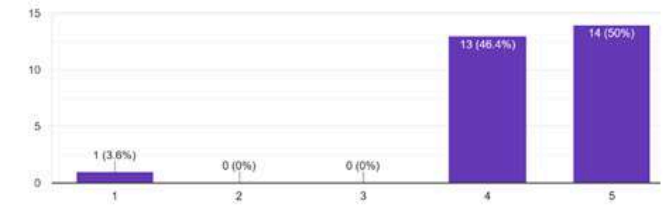
The feedback collected through post-training surveys, group discussions, and reflective exercises serves as a valuable resource for refining the programme and ensuring its continued success. It also offers a platform for participants to share their success stories, best practices, and actionable recommendations.

By analysing participant feedback, the programme aims to foster a culture of continuous improvement and responsive adaptation, ensuring that the training remains relevant, effective, and impactful.

- Teachers expressed appreciation for the interactive and activity-based training approach.
- Many highlighted the practical relevance of the activities and lesson plans.
- Participants emphasised the importance of follow-up sessions to ensure long-term impact.
- Some teachers requested extended training durations for deeper exploration of each module.
- Feedback indicated significant improvement in confidence and skills related to technology integration.
- Participants recommended more frequent refresher workshops to stay updated with new methodologies.

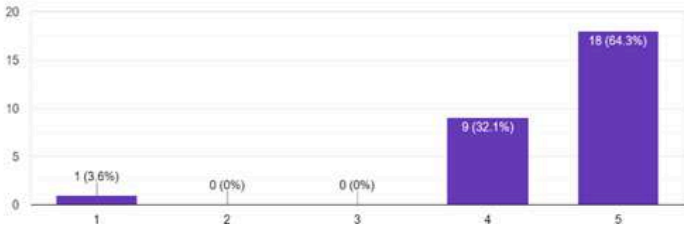
How would you rate the training module content?

28 responses



How would you rate the training environment?

28 responses

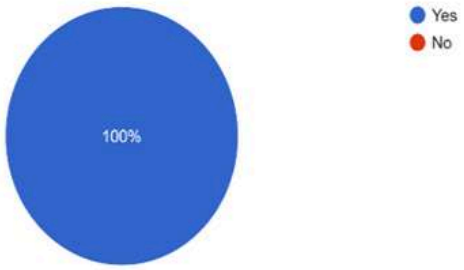


Is the training provided beneficial for your teaching journey?

28 responses

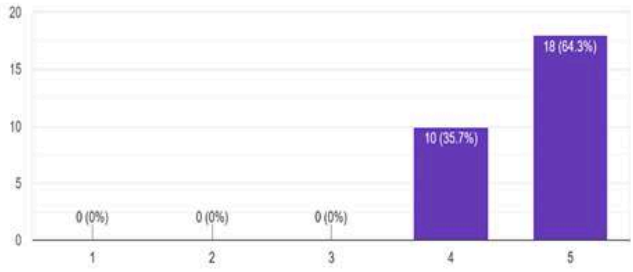
Did you find the training engaging and interactive?

28 responses



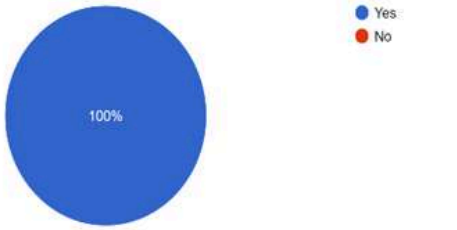
How would you rate the clarity of the training session?

28 responses



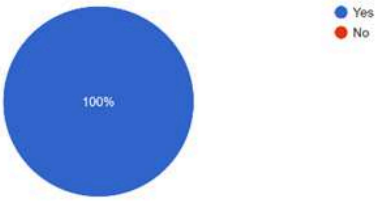
Would you like to achieve more session conduct like this in the future?

28 responses



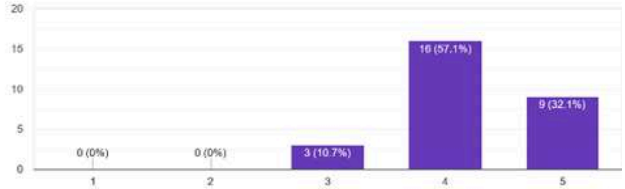
Can the training you have received be implemented with your students in the school setting?

28 responses



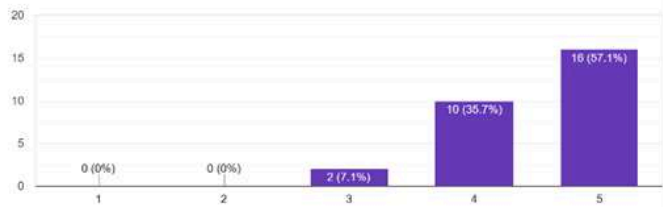
How well did you understand the topics covered during the training?

28 responses



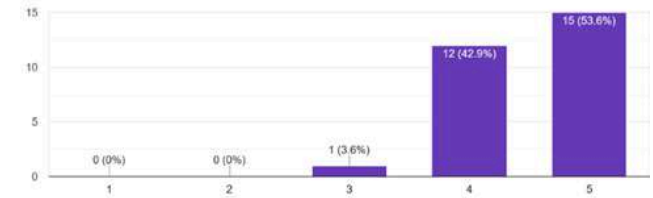
How relevant do you think the training is to your teaching journey?

28 responses



How satisfied are you overall with the training session?

28 responses



What are the teaching methods you have learned from the training?
I have learnt these things..
1.communication
2. Collaboration
3.creativity
4. Critical thinking

Jimmerish M Sangma
St Joseph's School, Sampalgre, William Nagar

How do you plan to apply what you learned during the training in your school?

- To communicate with students and show more action and practice instead of theory

What are the teaching methods you have learned from the training?

- Collaboration and communication is a key to teach the students

Ibapdianghun shadap
Sacred heart higher secondary school, Dalu

How do you plan to apply what you learned during the training in your school?

- Planing to apply the methods learned during the training and use to teach in our school.

What are the teaching methods you have learned from the training?

- Many methods of teaching We have learned from the training,but creativity and demonstrative methods are the must.

Tailorsingh Syiemlieh
Lawbbyrtun Government lp and up school

The number of the days of training should be more than two days so that it would be more useful and detailed.

Silminchi D Sangma
Rongjeng Govt UP School

As teachers, we need more informative training for a better education in our state

Fairiolyne Mawkhiew
Mawser Press SSA LP School

This training was really meaningful and got an opportunity to learn innovative things

Bondita Paul
Sacred Heart Higher Secondary School, Dalu

More days are needed for the training

Chena Lyne Thabah
Lamjingshai SSA RMSA Hr Sec School

I hope more trainings are conducted regularly to help us, as teachers, learn innovative ideas and continually upgrade our skills.

Ribhalin Khongwet
Raid Shabong Border area RMSA sec School

Need more deep for the training so that we can engage in more activites so that we can apply easily in our daily classroom

Luckystar Kharmudai
Lamjingshai SSA RMSA Hr Sec School

How do you plan to apply what you learned during the training in your school?

- I plan to apply 21st century skills because it is very important of adopting the student need lifelong learning and utilising diverse teaching method to prepared student for rapid changing world

What are the teaching methods you have learned from the training?

- The modern teaching are all about combining innovative techniques with educational tools to make learning interactive,effective,develop critical thinking,leadership,qualities,emotional intelligent, cultural and social emotional learning, filled classroom,projectand base learning

Any additional comments or suggestions for improvement?

- Parent can support their children to engage in activities that promote critical thinking communication and problem solving such as discussing, working on creative projects together or volunteering in the community

Rihunlang Marbaniang
Nongbsap Umpohliew L.P. School

1.7 Outcomes of the Training

- Increased teacher confidence in integrating 21st-century skills into classroom teaching.
- Enhanced digital literacy and familiarity with modern teaching tools.
- Improved ability to design interactive and engaging lesson plans.
- Stronger focus on collaborative and reflective teaching practices.
- Greater awareness of critical thinking and problem-solving methodologies.

1.8 Challenges Faced

- Limited digital proficiency among some teachers.
- Space constraints during group activities.
- Time limitations to cover in-depth training modules.

1.9 Recommendations

The recommendations provided in this section are aimed at enhancing the effectiveness, scalability, and sustainability of the training component under the 21st Century Skills Programme. These recommendations address key areas such as follow-up mentorship, technical proficiency, extended training durations, systematic monitoring, collaborative learning, and innovative practices.

Each recommendation is designed to:

- Provide continuous support and guidance to teachers beyond the training sessions.
- Ensure effective integration of digital tools and technologies in the classroom.
- Allow teachers sufficient time to deeply explore and apply training concepts.
- Implement structured feedback and monitoring mechanisms to track progress.
- Foster collaborative ecosystems where teachers can share resources and best practices.
- Encourage innovation and recognition through platforms such as state-level competitions.

By implementing these recommendations, the programme seeks to build a resilient, adaptable, and innovative education ecosystem where both teachers and students can excel.

1. Conduct Follow-Up Mentorship Sessions:

- Regular mentorship sessions should be organised to support teachers post-training.
- Sessions will provide opportunities for addressing challenges, sharing experiences, and refining teaching strategies.
- Mentors will serve as guides and resource persons to help teachers troubleshoot issues and implement innovative teaching practices.
- Scheduled virtual and face-to-face check-ins will ensure teachers remain aligned with the programme goals.

2. Provide Additional Technical Training:

- Specialised workshops focusing on advanced usage of digital tools, educational software, and smart classroom technologies.
- Training sessions on cybersecurity and digital ethics to ensure safe digital practices in the classroom.
- Hands-on practice sessions for digital platforms, multimedia tools, and online teaching resources.
- Access to digital literacy toolkits and reference materials for continued self-learning.

3. Extend Training Duration:

- Extend training sessions to allow for deeper exploration of training modules and hands-on exercises.
- Incorporate more practice-oriented tasks, case studies, and mock teaching sessions.
- Additional time for individual consultations and customised guidance for teachers.
- Flexibility in training schedules to ensure comprehensive coverage of all essential topics.

4. Regular Monitoring and Evaluation:

- Implement a structured monitoring framework to track teacher performance and student learning outcomes.
- Conduct periodic classroom observations to assess the practical implementation of training strategies.
- Use feedback tools, teacher surveys, and performance reports for evaluation.
- Develop action plans for teachers based on assessment findings to address identified gaps.

5. Organise a State-Level Competition for Best Projects:

- Introduce an annual state-level competition to showcase the best school projects integrating 21st-century skills.
- Schools will present their innovative classroom projects and student-driven activities.
- Categories may include Best Innovative Project, Best Technology Integration, and Best Collaborative Initiative.
- Independent evaluators will assess the projects based on originality, impact, scalability, and student engagement.
- Winning schools and teachers will receive certificates, recognition, and additional resources to further enhance their projects.
- This competition will foster a spirit of innovation, healthy competition, and knowledge-sharing among schools.

Part 2: School-Based Interventions

The integration of 21st-century skills into classrooms is essential for preparing students to thrive in an increasingly interconnected, digital, and dynamic world. This report outlines structured school-based interventions derived from the recent training program on 21st Century Learning and Information Skills. The interventions aim to align teaching practices with critical competencies such as Communication, Collaboration, Critical Thinking, Creativity, Digital Literacy, and Life Skills.

By aligning lesson plans and activities with 21st-century skills frameworks, teachers can create classrooms where students are equipped to thrive in an ever-changing world. These strategies address both pedagogical goals and student engagement, ensuring meaningful and sustainable implementation.

2.1 Objectives of School-Based Interventions

- Enable students to apply Communication, Collaboration, Critical Thinking, and Creativity.
- Promote technological literacy through the use of smart tools and online resources.
- Foster Life Skills through collaborative classroom activities and real-world problem-solving.
- Encourage active student engagement and ownership in learning.

2.2 Implementation Framework

- Lesson Plan Integration: Teachers implemented project-based learning strategies in regular lessons.
- Student Projects: Activities on topics such as Germination of Seeds, Environmental Conservation, Mathematics Projects, and Modes of Transportation.
- Use of Technology: Smartboards, digital projectors, and internet tools were actively utilised.
- Activity-Based Learning: Role plays, group quizzes, and peer teaching sessions.

2.3 School Project Overview

The schools that participated in the training successfully implemented their learning in the classrooms. Teachers integrated hands-on activities and project-based learning using topics from their syllabus, ensuring the incorporation of essential 21st Century Skills. Below are some of the notable projects implemented and the associated skills they focused on:

School Name	Topic	Description of Project	Use of 21st Century Skills
Lawbyrtun Govt LP and UP School	Understanding the relationship between electricity and magnetism	Exploring how electricity and magnetism are interrelated, demonstrating electromagnets using wire and batteries.	Critical thinking, problem-solving, scientific inquiry.

Raid Shabong Border Area RMSA Sec School	Understanding that sound can cause materials to vibrate	Demonstrating how sound causes vibrations and how sound waves travel through materials.	Scientific observation, experimentation, communication.
Telekali SSA UP School	Painting on Environments	Students express creativity through environmental painting, improving communication and problem-solving.	Creativity, communication, emotional expression.
Mawlong Govt LP School	Malaria Diseases	Understanding malaria, its symptoms, prevention, and treatment.	Critical thinking, awareness, problem-solving.
Nongtraw Govt LP School	Critical Thinking and Problem Solving Skills	Creating book box houses, painting, and collaborative activities to enhance critical thinking and problem-solving.	Collaboration, creativity, critical thinking.
Lamjingshai SSA & RMSA Hr. Sec School	Painting	Using painting as a tool for self-expression, improving hand-eye coordination and creativity.	Creativity, emotional expression, motor skills.
Sunshine Adventist SSA LP School	Understanding that sound can cause materials to vibrate	Understanding how sound waves cause vibrations and how they interact with materials.	Scientific observation, experimentation, communication.
Shangpung RMSA Secondary School	Understanding the relationship between electricity and magnetism	Exploring electromagnetism with wire, batteries, and nails to understand electric currents.	Scientific inquiry, problem-solving, experimentation.
Rongjeng Govt UP School	Electromagnetic Activity	Conducting an electromagnetic activity using wire and batteries to demonstrate electric current flow.	Scientific inquiry, observation, experimentation.

Ramakrishna Mission SSA LPS	State of Matter in a Baggie	Exploring states of matter with ice, water, and zip-lock bags to observe molecular changes.	Scientific observation, analytical thinking, experimentation.
Govt Boys Hr. Sec School, Tura	Perimeter Magic, Probability, and Number Mat	Engaging with perimeter, probability, and number games to enhance mathematical thinking.	Analytical thinking, problem-solving, mathematical reasoning.
Mawten Govt LP School	Quiz, Drawing, Painting, and Sports	Using quizzes, drawing, painting, and sports to enhance knowledge, creativity, and physical fitness.	Collaboration, creativity, physical fitness.

The activities successfully enhanced students' intellectual, creative, and physical abilities. The quiz competition promoted knowledge acquisition and critical thinking, encouraging students to expand their understanding and approach problems analytically. The drawing and painting sessions fostered creativity and artistic expression, allowing students to express their thoughts and emotions through colours and designs. The sports activities emphasised physical fitness and teamwork, teaching students the importance of discipline, collaboration, and maintaining a healthy lifestyle. Overall, these activities contributed to the holistic development of students and created an engaging and enjoyable learning environment where students could thrive academically, artistically, and physically.

2.4 Recommendation

Transitioning from a lecture-based approach to a Project-Based Learning (PBL) approach is a critical recommendation for fostering 21st-century skills, including critical thinking, collaboration, creativity, communication, and digital literacy among students. This recommendation emphasises gradually integrating PBL into the existing curriculum to ensure smooth adoption and effectiveness.

How PBL Promotes 21st Century Skills:

- **Critical Thinking:** Students analyse problems, develop hypotheses, and create solutions through real-world projects.
- **Collaboration:** Group projects encourage teamwork, leadership, and the sharing of diverse perspectives.
- **Creativity:** Open-ended projects inspire innovative thinking and original solutions.

- **Communication:** Students improve their presentation, discussion, and articulation skills through project documentation and delivery.
- **Digital Literacy:** Projects incorporate digital tools, research, and online collaboration platforms.
- **Problem-Solving:** PBL focuses on tackling real-world challenges, encouraging students to think logically and systematically.
- **Adaptability:** Projects often require students to adjust their strategies based on feedback and unexpected outcomes.
- **Social Responsibility:** Many projects address social or environmental issues, promoting community involvement and ethical responsibility.

Key Recommendations for PBL Implementation:

- Conduct workshops and teacher training focused on PBL methodologies.
- Integrate PBL activities into lesson plans across all subjects.
- Encourage cross-disciplinary projects to build holistic understanding.
- Implement formative and summative assessments tailored for PBL.
- Provide ongoing mentorship and technical support for teachers.
- Create platforms for sharing best practices and success stories.
- Use digital tools and platforms to enhance collaboration and presentation.
- Organise state-level competitions to showcase exceptional projects.

By embedding PBL into the educational framework, schools can create an engaging and innovative learning environment where students actively participate, develop essential 21st-century skills, and grow into responsible global citizens.

Part 3: Key Outcomes of the Programme

Following the training of teachers from PM SHRI Schools, a week-long project-based activity was conducted. Schools either selected topics from their syllabus to design their own projects or implemented projects provided by Bhoomi Educational Consultancy.

3.1 Enhanced Teacher Proficiency in 21st-Century Teaching Methodologies

Teachers demonstrated a significant improvement in their ability to integrate 21st-century skills into classroom teaching.

3.2 Increased Student Participation in Project-Based and Activity-Oriented Learning

The programme resulted in heightened student engagement through hands-on activities and collaborative projects. Students actively participated in interactive classroom experiments and real-world problem-solving activities. Group activities fostered teamwork, peer learning, and leadership qualities.

3.3 Successful Integration of Technology Tools in Classroom Settings

Technology integration played a pivotal role in modernising classroom learning environments: Teachers successfully utilised smart classroom tools like projectors, smartboards, and multimedia presentations.

3.4 Development of Innovative Lesson Plans and Classroom Projects

Teachers developed and implemented innovative lesson plans and classroom projects tailored to student needs. Lesson plans focused on student-led inquiry and exploration.

3.5 Empowered Students with Lifelong Learning Skills

The programme successfully equipped students with essential skills for lifelong success:

- Improved self-confidence and communication abilities.
- Enhanced analytical and logical reasoning skills.
- Developed collaborative teamwork and problem-solving capabilities.
- Promoted a sense of responsibility and environmental stewardship.

3.6 Strengthened Teacher-Student Collaboration

- The programme created stronger bonds between teachers and students:
- Teachers were better equipped to act as facilitators and mentors.
- Students felt more encouraged to ask questions and express creativity.
- Classroom dynamics became more inclusive and participative.

Part 4: Recommendations

Bhoomi aims to promote the integration of 21st Century Skills with Project-Based Learning (PBL) in the classroom. This integration serves as an innovative pedagogical tool that can be gradually introduced to make learning more engaging and effective. By combining these two approaches, Bhoomi seeks to create an environment where students are not only acquiring academic knowledge but also developing essential skills such as teamwork, critical thinking, communication, problem-solving, and digital literacy.

Project-Based Learning inherently incorporates these 21st Century Skills, allowing students to engage in hands-on activities that mirror real-world scenarios. This approach ensures that every topic addressed by the teacher includes a pre-planned PBL component, gradually shifting the focus away from traditional lecture-based teaching towards interactive, experiential learning.

While Bhoomi recognises that syllabus completion remains a priority, the emphasis is equally placed on ensuring that students learn effectively and acquire the necessary competencies for lifelong success. PBL, combined with 21st Century Skills, provides a balance between content mastery and skill development, transforming abstract concepts into practical, real-world applications.

Teachers will play a crucial role in this transformation, shifting from being mere transmitters of knowledge to facilitators of learning. Through well-structured lesson plans, ongoing professional development, and collaborative approaches, teachers will be empowered to guide students in applying their knowledge creatively and meaningfully.

This integration also aims to create an environment where learning is hands-on, experiential, and enjoyable. Students will not only understand academic concepts better but also develop confidence, collaboration skills, and adaptability—preparing them for the demands of the modern world.

In the long run, Bhoomi envisions a sustainable transformation in teaching practices, where classrooms become spaces of inquiry, innovation, and creativity. By prioritising both effective syllabus completion and 21st Century Competency

Development, Bhoomi ensures that every student emerges not only academically proficient but also equipped with skills essential for personal and professional growth.

Through this initiative, Bhoomi reaffirms its commitment to fostering a holistic learning experience that bridges the gap between academic knowledge and real-world application, empowering students to thrive in an ever-evolving global landscape.

Alignment with NEP 2020 and Bhoomi Goals

The integration of 21st Century Skills with Project-Based Learning (PBL) aligns seamlessly with the National Education Policy (NEP) 2020 and the core mission of Bhoomi Educational Consultancy. This alignment underscores a shared commitment to fostering an education system that is skill-oriented, experiential, and student-centric.

1. Supports NEP 2020 Focus on Skills, Experiential Learning, and Student-Centric Approaches:

- NEP 2020 emphasises the need for education systems to move beyond rote learning and focus on skill development, critical thinking, and hands-on experiences.
- Project-Based Learning, enriched with 21st Century Skills, directly supports these goals by promoting active participation, collaborative problem-solving, and practical application of knowledge.

2. Builds Capacity Among Teachers and Students for Future-Ready Skills:

- Bhoomi's approach ensures teachers are equipped with the tools and methodologies to integrate PBL and 21st Century Skills effectively into the curriculum.
- Students gain essential skills such as teamwork, digital literacy, communication, and critical thinking, preparing them for future challenges and opportunities in higher education and the workforce.

3. Aligns with Bhoomi Educational Consultancy's Mission to Enhance Learning Outcomes Sustainably:

- Bhoomi is committed to creating long-term, sustainable improvements in the education system by focusing on data-driven strategies, teacher capacity building, and innovative pedagogies.
- Integrating PBL with 21st Century Skills ensures that learning is experiential meaningful, and aligned with global educational standards.

In essence, the integration of 21st Century Skills within Project-Based Learning reflects a shared vision between NEP 2020 and Bhoomi Educational Consultancy to create an education system that is dynamic, inclusive, and future-ready. This alignment not only enhances academic outcomes but also fosters a generation of confident, innovative, and responsible citizens prepared to contribute effectively to society.

Next Steps:

1. Pilot Phase: Roll out PBL in selected subjects and schools.
2. Teacher Training: Provide targeted training on 21st-century skills and PBL methodologies.
3. Feedback Mechanism: Establish monitoring and evaluation systems.
4. Gradual Expansion: Scale PBL implementation across subjects and grade levels.

This table serves as a clear roadmap for integrating PBL and 21st-century skills into the education system effectively.

Stage	Focus Area	Key Actions	Outcomes
1. Build Awareness and Understanding	Teacher Training and Awareness	- Conduct workshops on PBL and 21st-century skills. - Share success stories of schools implementing PBL. - Define clear objectives aligning with curriculum goals.	Enhanced teacher understanding of PBL's role in developing 21st-century skills.
2. Start Small with Pilot Projects	Gradual Introduction	- Start with one or two subjects (e.g., Science, Social Studies). - Design short, manageable projects (1–2 weeks). - Encourage teacher collaboration in planning.	Successful pilot implementation, fostering teacher and student confidence.

3. Integrate PBL into Existing Curriculum	Curriculum Alignment	- Incorporate one project per term per subject. - Align projects with curriculum goals. - Use lectures for foundational concepts and PBL for application.	Seamless integration of PBL into academic plans, improving engagement.
4. Provide Continuous Teacher Support	Teacher Empowerment	- Conduct regular professional development sessions. - Share resources (templates, rubrics) via WhatsApp groups. - Enable peer observation sessions.	Teachers are equipped with tools and strategies for effective PBL delivery.
5. Foster a Collaborative Learning Environment	Student Collaboration	- Teach teamwork and group dynamics. - Foster student autonomy in projects. - Conduct reflection sessions for improvement.	Students demonstrate teamwork, accountability, and engagement in projects.
6. Implement Assessment Strategies for PBL	Effective Evaluation	- Use formative assessments (peer reviews, checklists). - Apply summative assessments focused on creativity and teamwork. - Promote self-assessment and reflection.	Improved assessment transparency and focus on skill development.
7. Gradual Scaling	Expansion and Integration	- Gradually increase project frequency each academic year. - Design interdisciplinary projects. - Leverage tools like App Neeve for collaboration.	PBL becomes a regular feature, fostering interdisciplinary learning and innovation.
8. Create a Culture of Inquiry and Innovation	Innovation and Creativity	- Celebrate student projects via exhibitions and showcases. - Recognise outstanding contributions. - Foster curiosity and inquiry in classroom activities.	Students are motivated to innovate and explore ideas beyond the curriculum.

9. Monitor and Evaluate Progress	Continuous Improvement	- Collect regular feedback from teachers, students, and parents. - Track student skill development. - Refine strategies based on data insights.	Data-driven refinements ensure sustainable and impactful PBL adoption.

Part 5: Way Forward

In conclusion, the 21st Century Skills Programme has successfully equipped both teachers and students with the essential skills needed to navigate an ever-evolving world. Through comprehensive training sessions, educators gained valuable theoretical knowledge and practical strategies, empowering them to create interactive and student-centered learning environments. School-based interventions provided real-world applications of these strategies, ensuring sustainable and impactful outcomes in classrooms. Moving forward, the continued success and scalability of the program will depend on periodic refresher training sessions, the establishment of mentorship networks, and regular monitoring and evaluation of interventions. Additionally, fostering strong collaboration with parents and community stakeholders will play a crucial role in building a supportive ecosystem for sustained progress. With these measures in place, the programme is well-positioned to drive meaningful and lasting educational transformation across all schools.

Key Takeaways from Teacher Training:

1. Skill Development: Teachers gained both theoretical knowledge and practical strategies to effectively deliver 21st-century skills in the classroom.
2. Empowered Educators: Teachers are now better equipped to facilitate interactive and student-centered learning environments.

Key Takeaways from School-Based Intervention:

1. Practical Application: School-based interventions allowed for real-world application of theoretical knowledge gained during training.
2. Student Engagement: Activities and interventions created an engaging and supportive learning environment for students.
3. Scalable Model: The interventions demonstrated a scalable approach for broader implementation across multiple schools.

These takeaways emphasise the critical role of ongoing teacher support and robust school-level implementation in driving meaningful change.

Continuous professional development for teachers ensures they remain equipped with the latest strategies and tools to deliver effective learning experiences. Simultaneously, well-structured school-based interventions create an environment where theoretical knowledge is translated into practical outcomes. Together, these elements form the foundation for achieving long-term educational transformation, fostering a sustainable and impactful learning ecosystem for students.

Annexure 1

Day 1: Agenda and Training Schedule:

Sl. No	TOPIC	ACTIVITY	TIME
1	Registration	Registration of the Participants	9:00 – 10.00
2	Welcome and Introductions	• Opening remarks • Lighting of the Lamp • Facilitation of the chief guest • Welcome address by Director Bhoomi and Trainers • Address by Smti M Lyngrah • Keynote address by Dy. SPD	10:00 – 11:10
3	Break	• Tea break and photograph	11:10:11:20
4	Brainstorming Agenda Sharing	• Look at the picture and talk about it • Sharing the agenda for the day	11:20 - 11:25
5	21st Century Skills	• Discussion and information sharing	11:25 - 11:45
6	Energizer	• Energizer	11:45 - 11:55
7	Role of Educators & Teaching Practices	• Group activity	11:55 - 12:15
8	Collaboration & Communication Introduction	• Activity- Untie the knot • Brainstorming	12:15 - 12:35
9	Collaboration & Communication	• Defining • Discussion on types of communication	12:35 -12:55
10	Team Project	• Design a classroom project to encourage teamwork and communication.	12:55 – 1:30
11	Lunch Break	• Break	1:30- 2:15
12	Defining Critical Thinking	• Discussion	2:15-2:30
13	Case Study & Importance of Critical Thinking	• Studying a real class scenario	2:30- 3:05
14	Spot the difference	• Fun critical thinking skill activity	3:05- 3:15
15	Strategies for Classroom	• Think-Pair-Share	3:15- 4:15
16	Break	• Break	4:15-4:25
17	Energizer	• Energizer	4:25- 4:35
18	Introduction to innovation & creativity	• Design a new product	4:35-4:45
19	Creativity & innovation	• Defining creativity & innovation • Discussing strategies for inculcating creativity & innovation	4:45 - 5:10
20	Action Plan	• Design Challenge - explaining the activity • Discussion on the lesson plan structure	5:10 - 5:20
21	Reflection & Feedback	• Reflection & Feedback	5:20 - 5:30

Day 2: Agenda and Training Schedule:

Sl.No	TOPIC	ACTIVITY	TIME
1	Welcome and Introductions	• Opening remarks • Agenda of the day	9:30 - 9:45
2	KWL	• Recap previous days topics • Prepare KWL Chart	9:45 – 10:00
3	Lesson Plan Presentation	• Present the group project -lesson plan preparation given as an action plan on the previous day	10:00 - 10:40
4	Energizer	• Activity to energize and rearrange the groups	10:40 - 10:50
5	Digital Literacy	• Defining Digital Literacy and its essential competencies	10:50 – 11:30
6	Tech-tool exploration	• Group Activity to discuss the features and advantages of different tech-tools	11:30 – 12:00
7	Quiz	• Participants divide into 2 groups and frame questions for the other group.	12:00 - 12:30
8	Life Skills	• Recap and definition	12:30 – 12:45
9	Role-play	• Enact different difficult scenarios	12:45 - 1:30
10	Lunch Break	• Break	1:30 -2:30
11	Energizer	• Rock-Paper-Scissor	2:30 -2:40
12	Strategies for Life Skills	• Brainstorming	2:40 -3:00
13	KWL	• Revisiting KWL and filling the 'L' Column	3:00 - 3:10
14	Energizer	• Pass on the Action - Game to reiterate the importance of communication	3:10 - 3:20
15	Quiz	• Quiz to recap • Q & A	3:20 - 3:35
16	Action Plan	• Explaining the action plan of creating theme based projects.	3:35 - 3:50
17	Reflection & Feedback	• Participants share their takeaways. Fill in the feedback form	3:50 - 4:10
18	Tea Break	• Break	4.10- 4.25
19	Closure Activity	• Closure Activity	4:25 - 4:45
20	Vote of Thanks & Certificate distribution	• Vote of Thanks & Certificate distribution	4:45 - 5:00
21	Administrative Activity	• Administrative Activity	5:00 - 5.30

Team Projects

Annexure 2

Group	Topic	Objective	Task Description	Steps	Roles	Assessment Criteria	Teachers
Group 1	The 5 Sense Organs	Differentiate and identify the five sense organs.	Identify the five sense organs through interactive activities.	Close eyes, cover ears, discuss tongue, nose, skin.	Ram: Eye, Rahul: Ear, Kareena: Tongue, Kajol: Nose, Salman: Skin	Sense unknown objects and communicate observations.	Fairiolyne Mawkhiew, Daphimon Nongrum, Silminchi D. Sangma, Haidar Hussain Mollah, Firdus Ali, Sunong
Group 2	Knowing the Parts of a Plant	Identify plant parts and explain their functions.	Display two plants and prepare an herbarium.	Discuss roots, stems, leaves, flowers, branches.	Students represent roots, flowers, stems, branches.	Identify and explain plant parts' functions.	Ronaldo Lyngdoh, Requitetalson Wanniang, Lahin M. Marak, Sokidari War, Tailorsingh Syiemlieh, Chakkim M. Sangma

Group 3	Preparation of Chicken Curry	Develop group cooking skills and identify shapes and measurements.	Students prepare chicken curry with accurate measurements.	Wash, cut, measure, make fire, cook.	Washing, Cutting, Measuring, Fire, Cooking.	Cooking skills, measurement accuracy, teamwork.	Sankirang Langshiang, Rihunlang Marbaniang, Bondita Paul, Jimmerish M. Sangma, Bimoris Hoojon, Simchera M. Sangma
Group 4	Motion and Teamwork	Build communication, confidence, pronunciation, teamwork.	Move objects collaboratively.	Attempt alone, group effort succeeds.	Students 1, 2, 3, 4, 5 push/pull together.	Observation of teamwork and collaboration.	Larseh D. Sangma, Baiaineh Kharpran, Evandalyne Kharbuli, N. Lydia, Ashadora Majaw
Group 5	Finding the Square of a Number (Maths Project)	Learn square calculations and understand square formula.	Use formula (a+b)^2 = a^2 + b^2 + 2ab to calculate squares.	Perform calculations using the square formula.	A: Writing, B: Materials, C, D, E: Supporters.	Accurate formula application and calculations.	Joseph Peter Syiemlieh, Ibaiamon Dewkhaid, Augustine Momin, Chenalyne Thabah, Gloria Syiemlieh
Group 6	Healthy Food	Identify nutrients in diets and understand balanced diets.	Classify collected fruits and vegetables by nutrient groups.	Collect fruits, group by nutrients.	Gracy: Carbohydrates, Chera: Proteins, Suba: Vitamins, Satchina: Minerals.	Nutrient identification, communication, teamwork.	Subashisha Khongjoh, Satchina R. Marak, Ibapdiangh un Shadap, Orellia D. Sangma, Luckystar Kharmudai

Group 7	Voices of Numbers (Addition)	Identify and compare numbers, differentiate odd/even numbers	Check if given numbers are odd/even.	Distribute sheets, count, add totals.	Sam: Odd number, Nary: Even numbers	Identify odd/even numbers, accurate addition	Ribhalin Khongwet, Gracy Sutnga, Elizabeth Mukhim, Virginia Manik, Lamjingshai Mynsong

Annexure 3

Lesson Plan

Group	Topic	Objective	Pre-task	Skills Focus	Materials Required	Action Plan	Teachers
Group 1	Environment Awareness	Develop a positive attitude towards environmental studies and create awareness about environmental conservation.	Show pictures of animals living in the desert and ask students to identify them.	Communication, collaboration, digital literacy.	-	Group discussion on planting trees on World Environment Day. Students will create posters about environmental awareness. Presentation of findings by each group.	Ronaldo Lyngdoh, Requitetalson Wanniang, Lahin M. Marak, Sokidari War, Tailorsingh Syiemlieh.
Group 2	Germination of Seeds	Enable students to learn about the germination process of seeds.	Students will bring seeds, soil, transparent disposable cups, and water.	Communication.	Seeds, soil, disposable cups, water.	Group 1: Select good seeds. Group 2: Prepare soil with manure. Group 3: Plant the seeds. Group 4: Observe and record germination	Fairiolyne Mawkhiew, Daphimon Nongrum, Silminchi D. Sangma, Haidar Hussain Mollah, Firdus Ali.

Group 3	Living and Non-living Things	Enable students to differentiate between living and non-living things.	Students will be divided into two groups: Living and Non-living.	Observation, classification.	-	Discussion on the differences between living and non-living things. Group activities identifying objects in their surroundings.	Sankirang Langshiang, Rihunlang Marbaniang, Bondita Paul, Jimmerish M. Sangma, Bimoris Hoojon.
Group 4	The Cycle of a Banana Plant	Understand the lifecycle of a banana plant.	-	Observation, biological analysis.	Wire, spade, manure, sack.	Step 1: Germinate banana seeds in September-October. Step 2: Monitor fruit production cycle. Step 3: Discuss the nutritional benefits of bananas.	Larseh D. Sangma, Baiaineh Kharpran, Evandalyne Kharbuli, N. Lydia, Ashadora Majaw.
Group 5	Animal Adaptation in Deserts	Understand animal adaptations in desert environments.	Show animal pictures and ask students to identify them.	Critical thinking, creativity, information literacy.	Photos of desert animals, internet, pen, paper.	Research desert climatic conditions. List desert animals and their survival patterns. Prepare adaptation charts.	Joseph Peter Syiemlieh, Ibaiamon Dewkhaid, Augustine Momin, Chenalyne Thabah, Gloria Syiemlieh.

Group 6	Area Related to Circle	Apply mathematical knowledge to calculate circular areas.	Show circular objects (e.g., clock, bottle cap) and ask students to measure them.	Critical thinking, problem-solving.	Circular objects, measuring tools.	Calculate areas using the formula $A = \pi r^2$. Solve real-life problems involving circular shapes.	Subashisha Khongjoh, Satchina R. Marak, Ibapdianghun Shadap, Orellia D. Sangma, Luckystar Kharmudai.
Group 7	Conservation of Plants and Animals	Encourage environmental protection and resource conservation.	Research biosphere reserves, national parks, and wildlife sanctuaries.	Communication, collaboration.	-	Form groups to create projects focused on environmental conservation. Students will document and present their conservation efforts.	Ribhalin Khongwet, Gracy Sutnga, Elizabeth Mukhim, Virgina Manik.

Group 8	Modes of Future Transportation	Explore and compare future modes of transportation.	Research different transportation modes.	Research, data analysis, critical thinking.	Internet, paper, pen.	Research different transportation modes. Identify pollution and traffic challenges. Create a comparative chart and presentation.	Sunong, Lamjingshai Mynsong, Chakkim M. Sangma, Simchera M. Sangma.