



Wastemath: Mathematics Educational Mobile Game for Estimation and Measurement of Nonstandard Units with STEM-based Environmental Care Approach

FINAL PROJECT OF VISUAL PROGRAMMING
MATHEDU 23 A

TEAM ONE

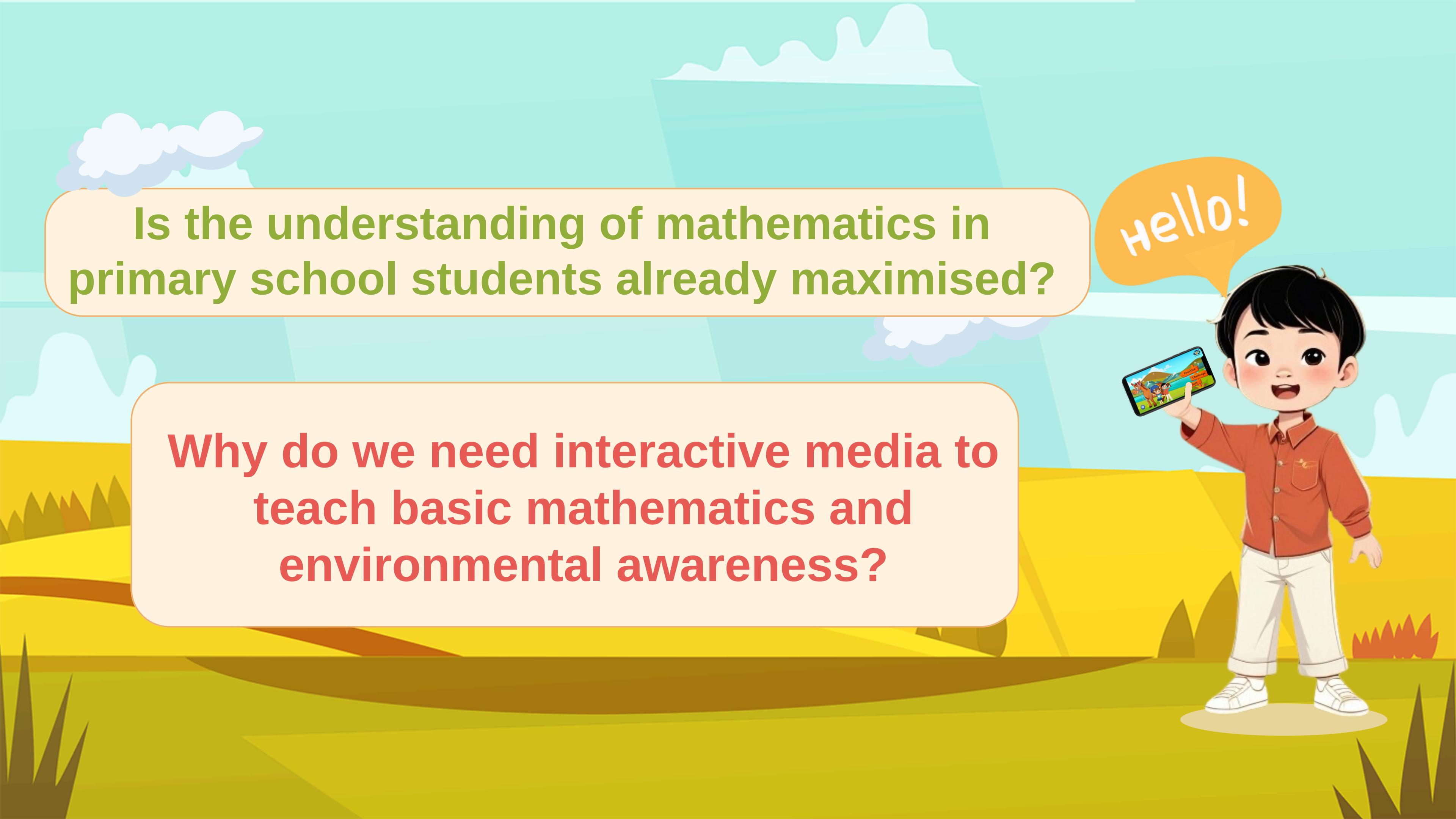
Lecturers: Nurus Saadah, S.Pd., M.Pd. and Evangelista Lus
Windyana Palupi, S.Pd., M.Sc.



Misel Rajasyah
Hadi Putra
23030174002



Rahayu Sulistia
Ningrum
23030174287



Is the understanding of mathematics in primary school students already maximised?

Why do we need interactive media to teach basic mathematics and environmental awareness?

Hello!

PROBLEM REFERENCES

01

Lack of Basic
Understanding of
Mathematics

02

Low Environmental
Awareness

03

The Need for
Interesting and
Effective Media for
Student Learning

04

The need to linkages
STEM education and
SDGs

Media Objectives

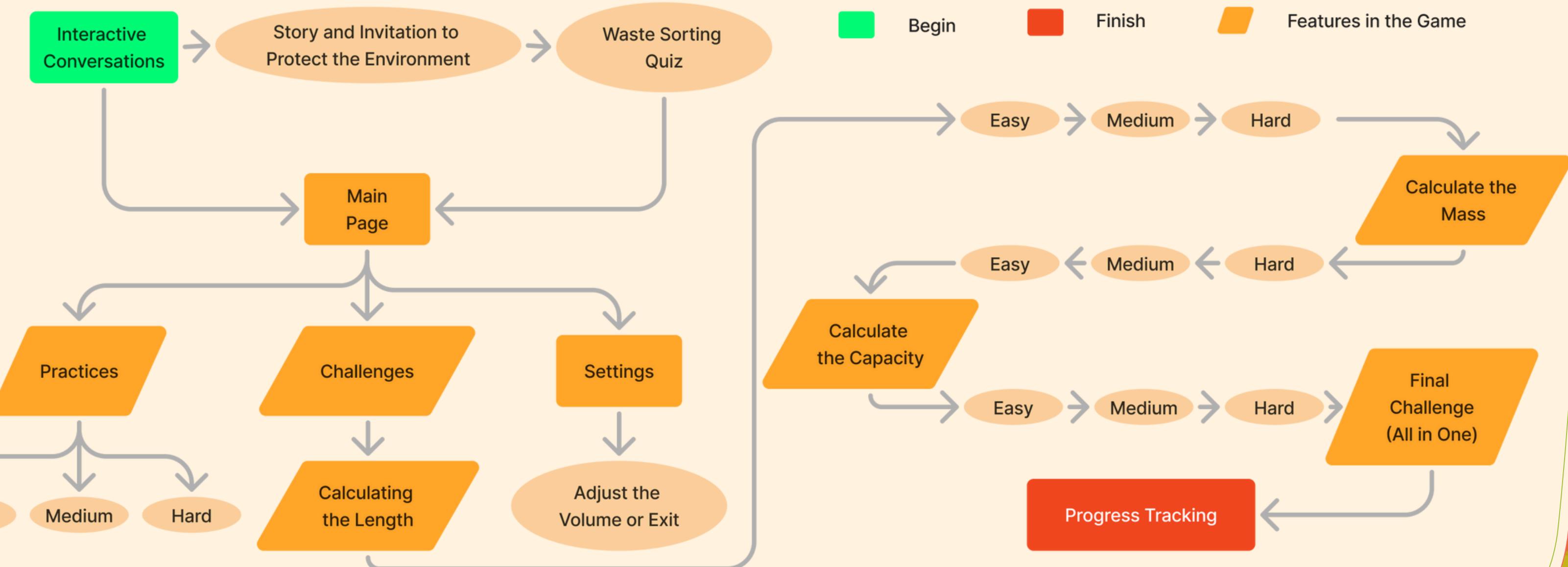
1. Help students develop basic maths skills in a practical and effective way
2. Support the implementation of STEM-based education in Indonesia, especially in primary schools.
3. Combine maths learning with environmental education on waste management
4. Instil concern for the environment from an early age

Description of Media

Wastemath is a game-based learning application designed to teach basic maths such as estimation and measurement with non-standard units, while instilling environmental awareness. In this application, students learn interactively and fun in the context of environmental conservation.



Flow of Media Usage



Main Features



Interactive Conversations

Main Features



Waste Sorting Quiz

Main Features



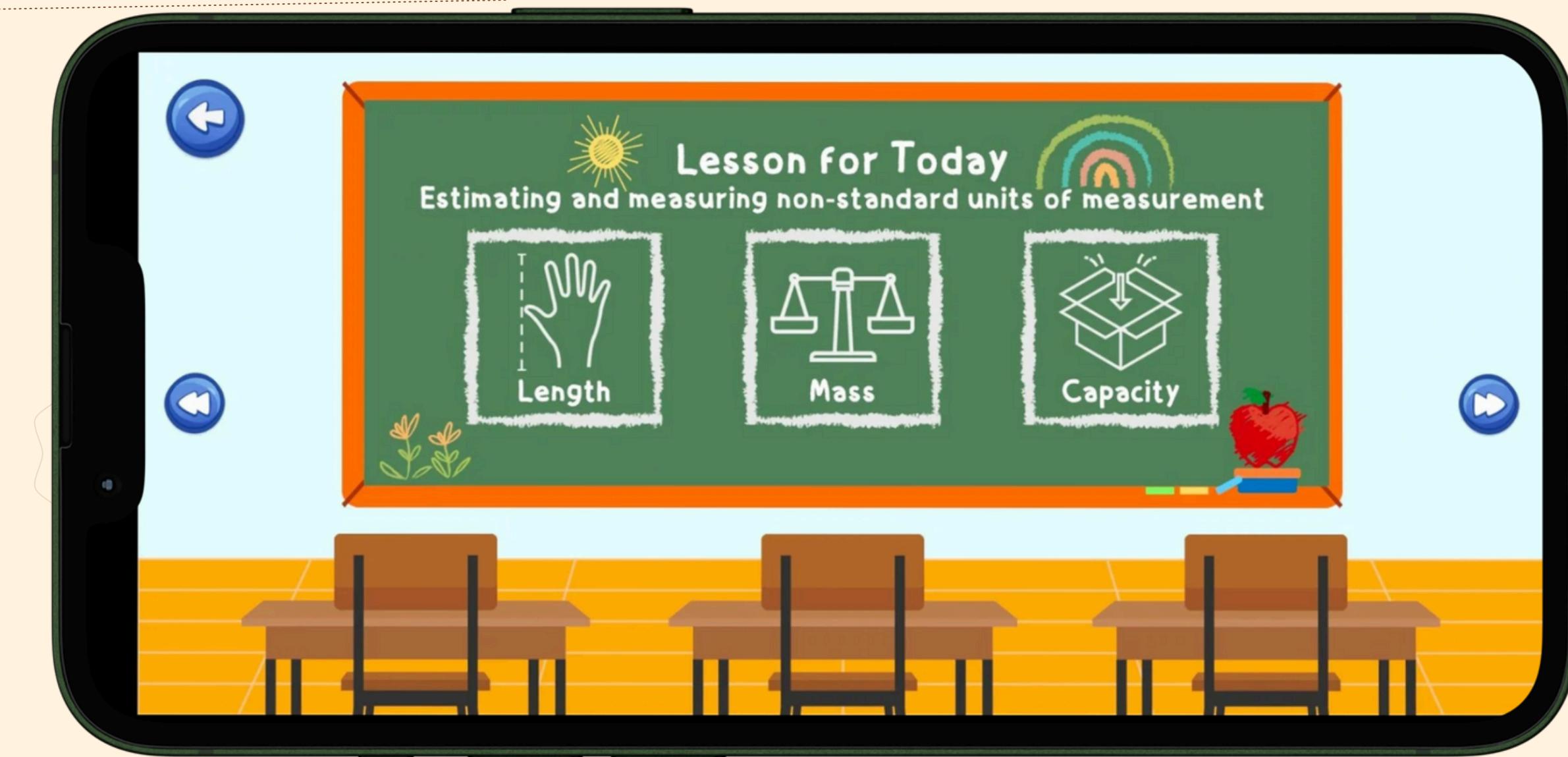
Main Page

Main Features



Practices Page

Main Features



Challenges Page

Main Features



Sample Question

Main Features



All in One

Main Features

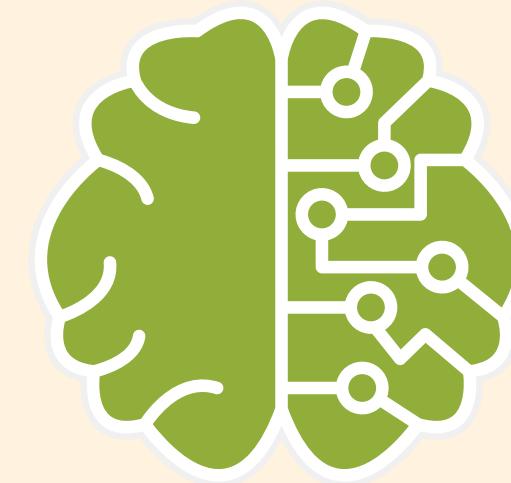


Progress Tracking

Media Advantages

- 1 App design that is attractive and suitable for elementary school children's learning
- 2 There are features that can be adjusted to the visual and audio learning styles of students
- 3 Student assessment tracking in knowing the results of previous scores
- 4 Integrates English language elements in learning, to encourage student multilingualism

Media's Impact on 21st Century Education



Skills Development
Especially Maths



Social Awareness
and Sustainability



Global Competence
and International
Communication

Supporting Sustainable Education

1



Integrating the
SDGs
in Education

2



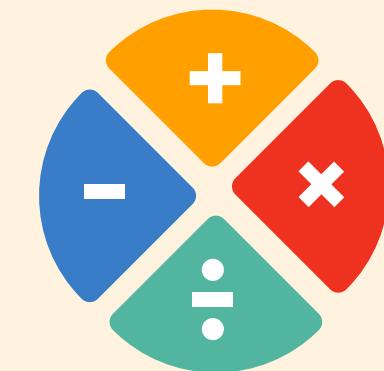
Constructing Inclusive
and Relevant Learning

3



Encouraging
Sustainability in
Learning

4



Utilising technology
in Learning

Media Development Plans



- 1 Implementation of Artificial Intelligence, on the storage of progress recap of each student
- 2 Adding a login and register page, so that assessment data can be stored for each student account
- 3 Provide additional variations of basic maths games with challenging levels
- 4 Flexible in the use of language by doing a language flip on each question

Media Expectations for Education

- 1 Improve understanding of mathematical concepts with more fun and excitement
- 2 Creating a generation that cares about the environment
- 3 Creating skills in students by encouraging STEM-based education
- 4 Improving collaboration between Teachers, Students, and Parents in motivating learning with Innovative media



THANK YOU

Success is no accident. It is hard work, perseverance, learning, studying, sacrifice and most of all, love of what you are doing or learning to do.

