



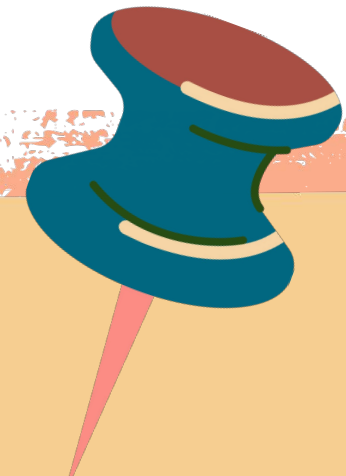
ICT for Teaching and Learning of Mathematics

*Digital Games and Mobile Apps for
Teaching-Learning of Mathematics*





Session Outline

- 
- How digital games and mobile apps can be effectively used to teach mathematics.
 - Examples of popular apps and tools that you can use right away in your classrooms.
 - Some of the challenges we face when implementing these tools and how to address them.



The Role of Digital Games and Mobile Apps in Mathematics

Interactive Learning

visualize complex problems, manipulate objects

Adaptive Learning

Tailored to individual student needs.

Immediate feedback

Provides immediate feedback to students



Key Features of Effective Digital Games & Apps



Engaging

Motivates students to learn mathematics.



Critical Thinking

Enhances problem-solving skills.



Collaborative

Promotes teamwork and peer learning.



Assessment

Tracks progress and provides feedback.



The Digital Games and Mobile Apps in Mathematics

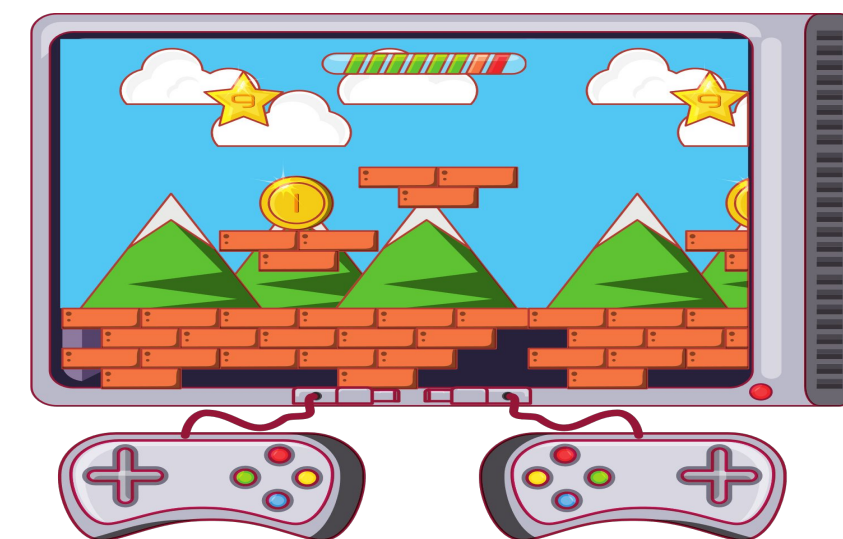
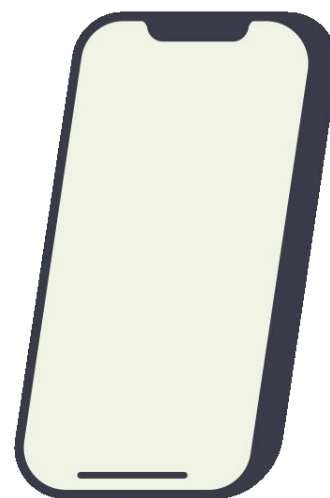
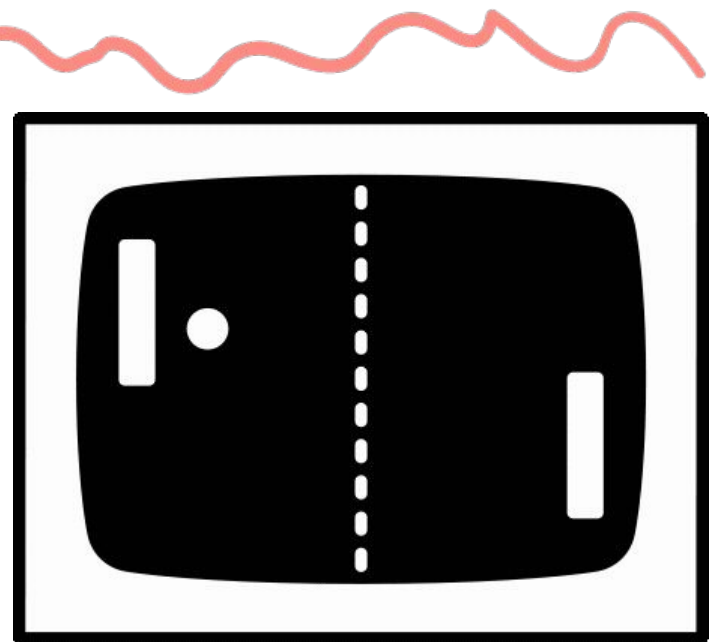
Generic Apps & Games

like Kahoot, Mentimeter,
canva, Quizze etc.

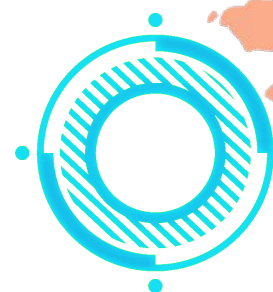
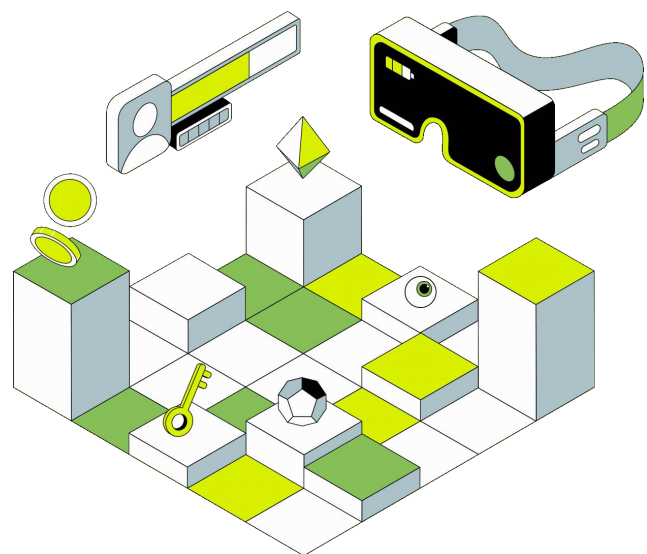
Subject Specific Apps and Games

Such as Desmos, GeoGebra, and
Robo Compass etc.





**Now Let us explore some Digital Apps
and Games...**



Geogebra

GeoGebra is a powerful and dynamic tool designed for teaching and learning mathematics. It allows students to interact with geometry, algebra, calculus, and graphs in real-time, helping them visualize abstract concepts. Teachers can create interactive lessons that foster active learning, encouraging students to explore mathematical properties and relationships on their own.

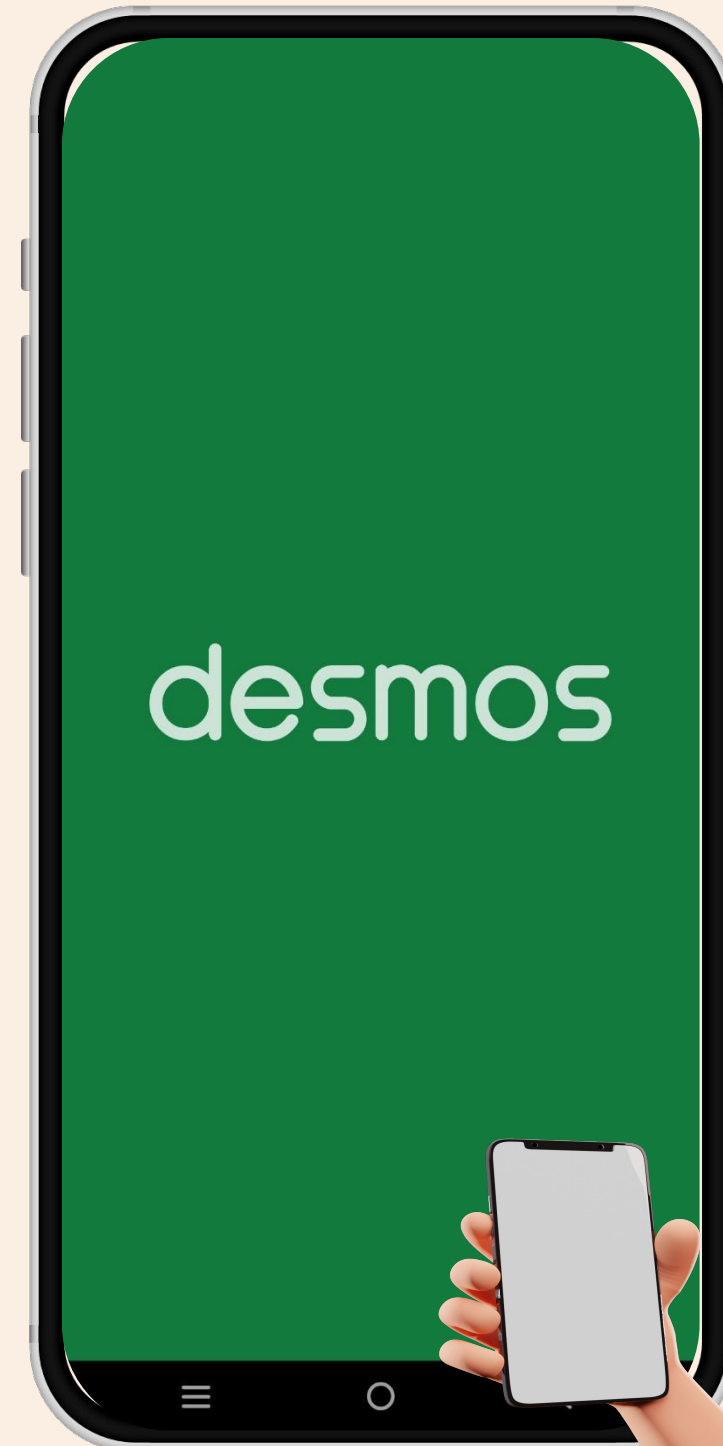
Mobile



Desmos

Desmos is an online graphing calculator that simplifies complex mathematical functions and equations. It is widely used in classrooms for visualizing graphs, solving algebraic equations, and understanding relationships between variables. Desmos also offers interactive activities that engage students in exploring mathematical concepts through hands-on problem-solving.

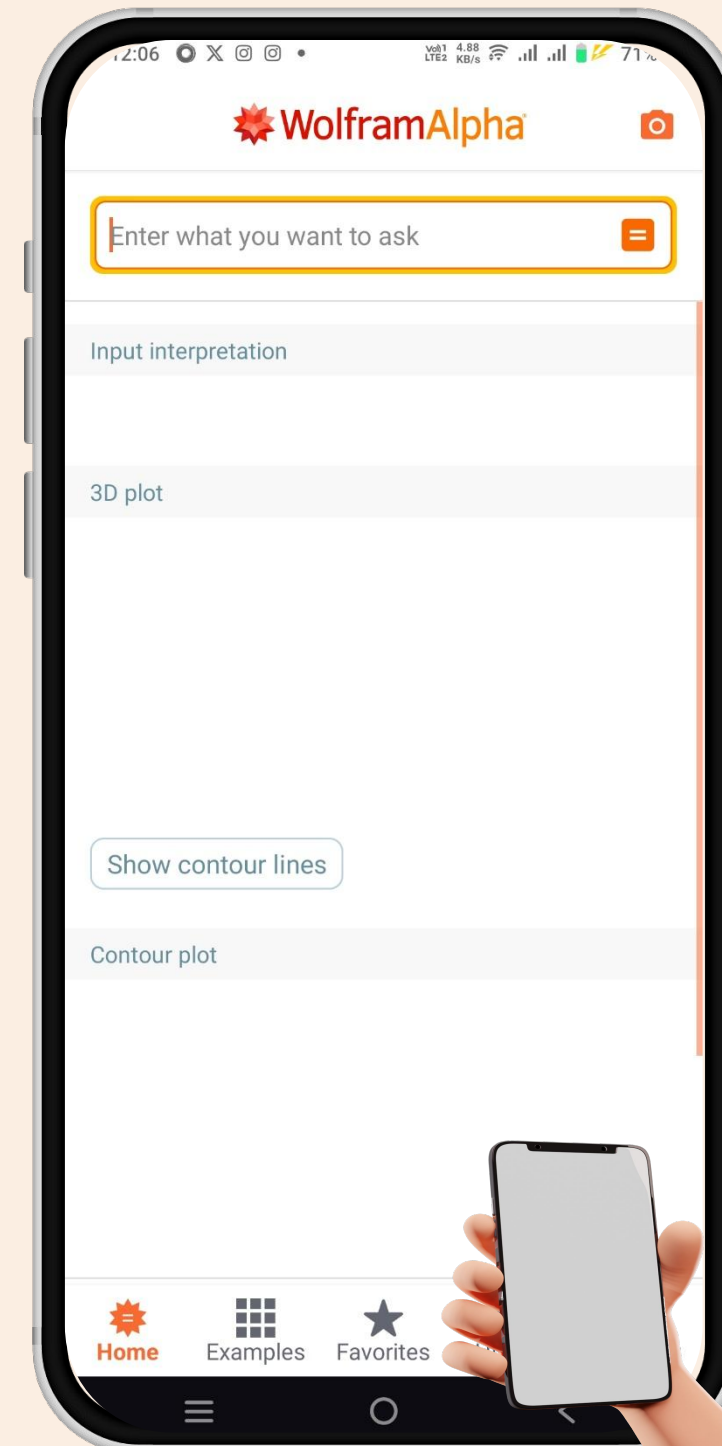
Mobile



Wolfram Alpha

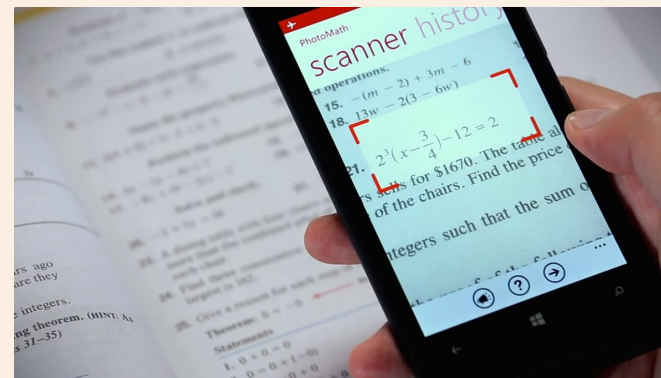
Wolfram Alpha is a computational search engine that offers step-by-step solutions to mathematical problems, ranging from basic arithmetic to advanced calculus and algebra. It serves as a valuable resource for both students and teachers, providing explanations, graphs, and interactive problem-solving experiences across a wide range of topics.

Mobile

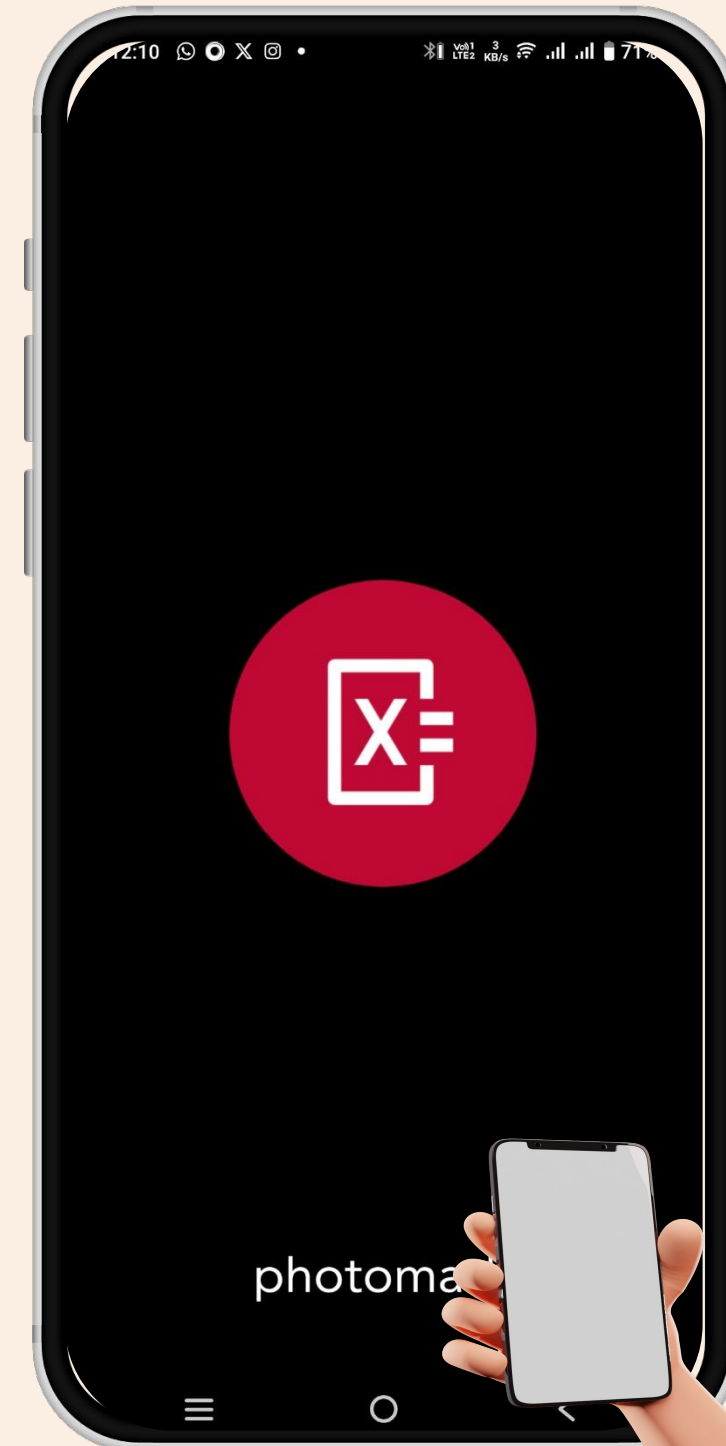


Photomath

Photomath is a mobile app that allows students to solve math problems simply by taking a picture. It instantly provides step-by-step solutions, helping users understand the process behind the answer. This app is great for both students and teachers, as it encourages self-guided learning and offers support in solving complex equations, algebra, and calculus problems.

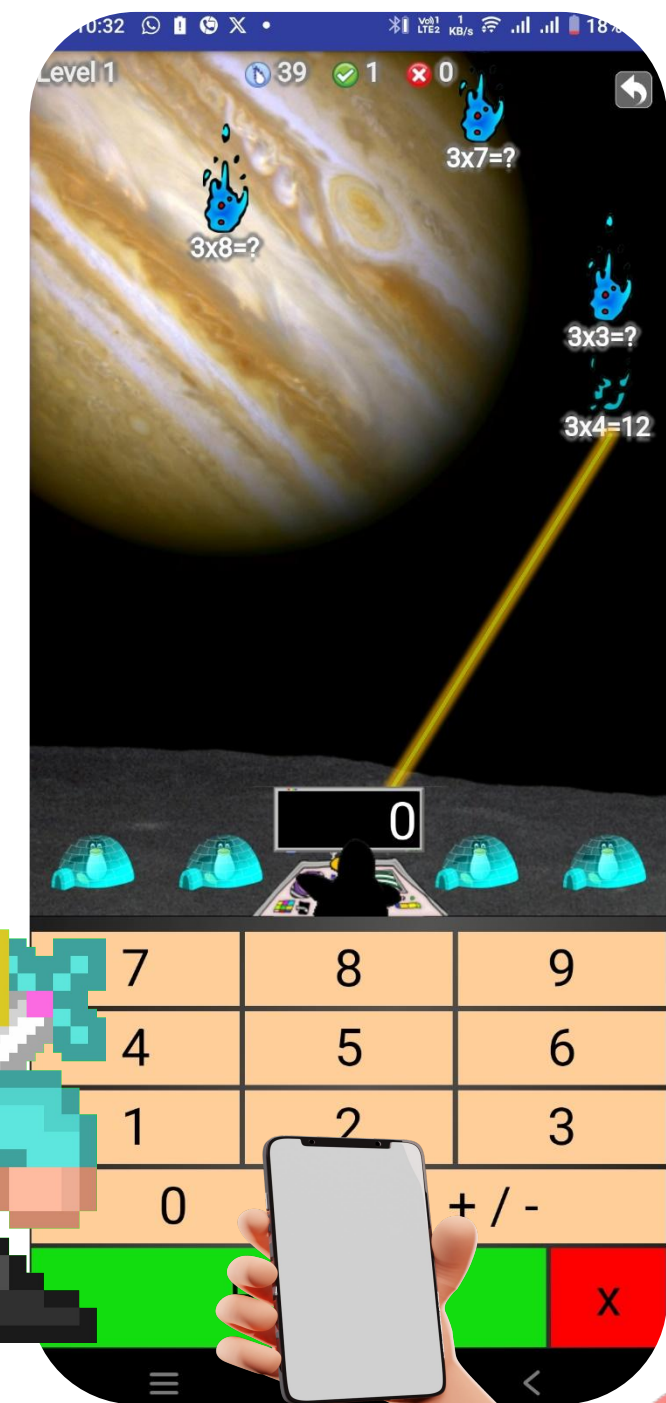


Mobile

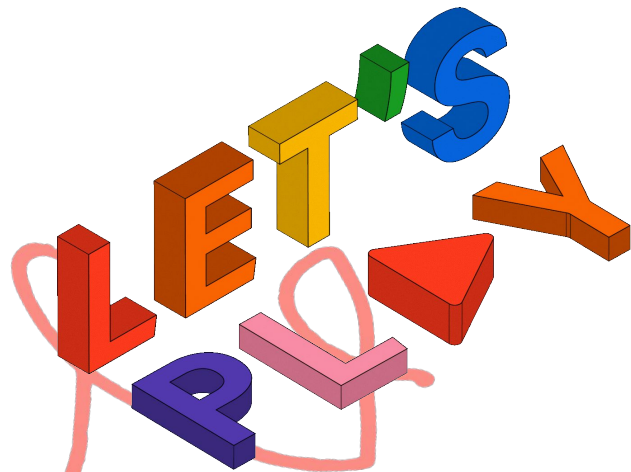
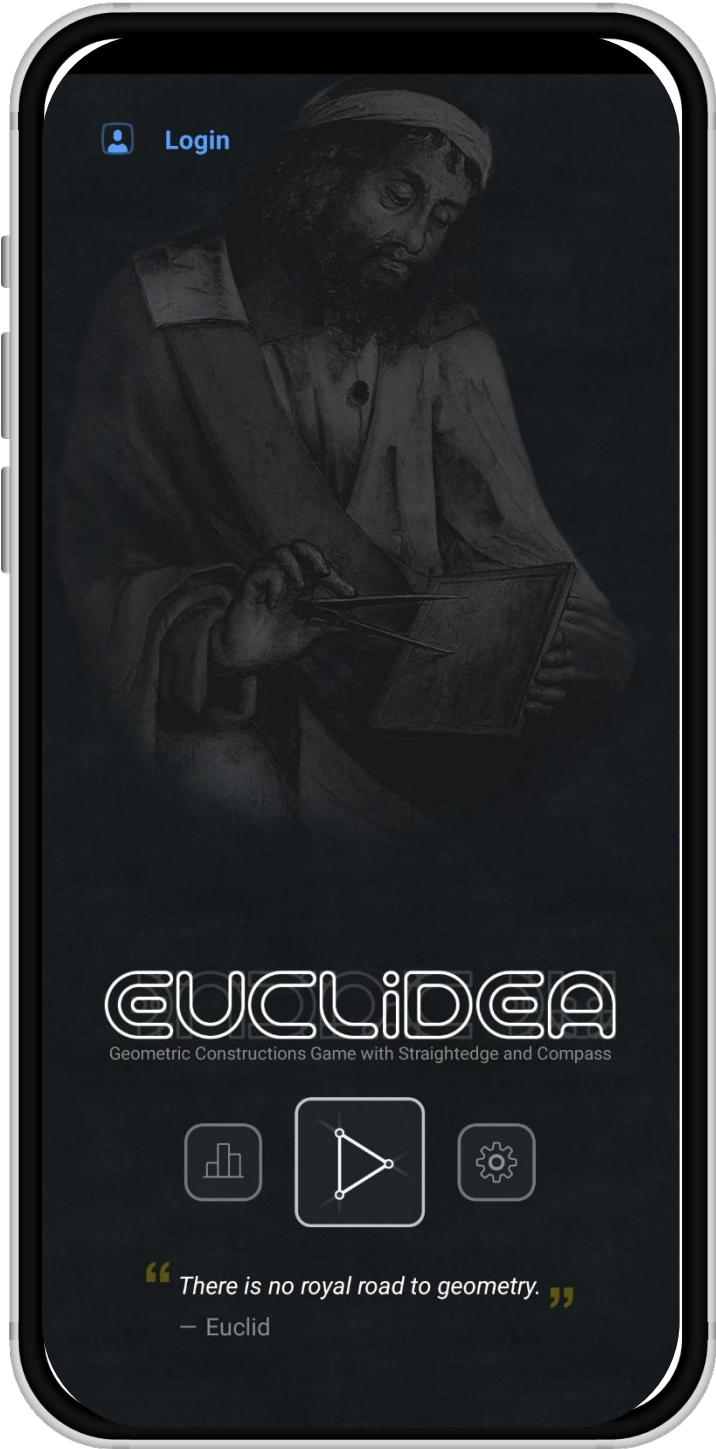


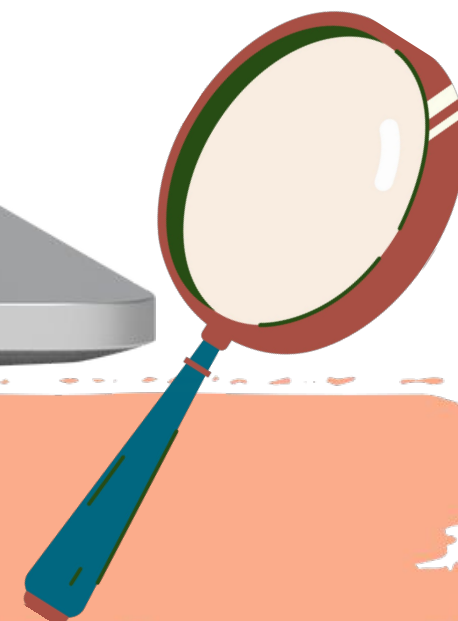
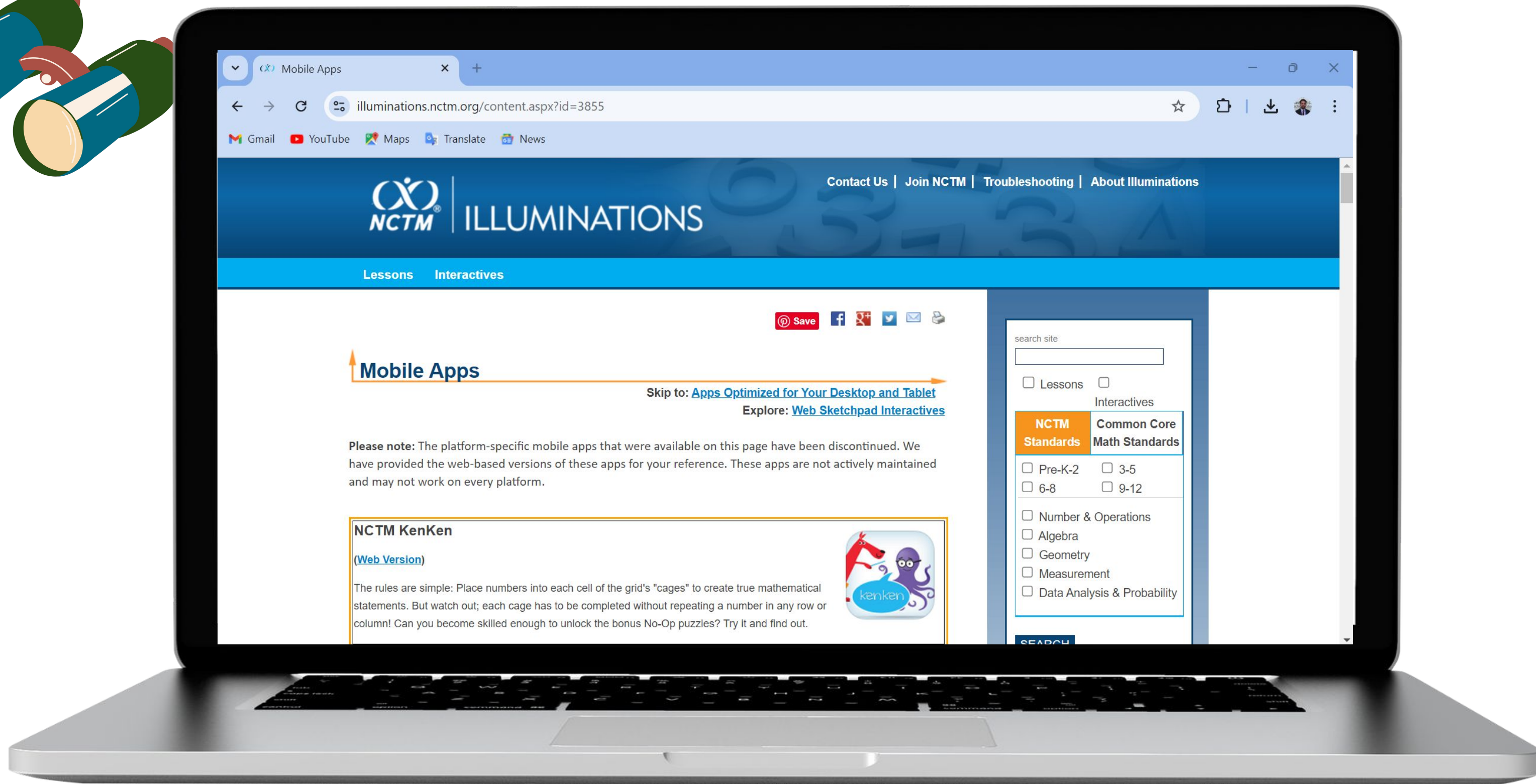
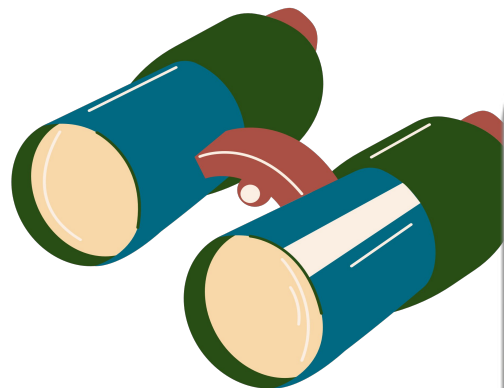
TuxMath

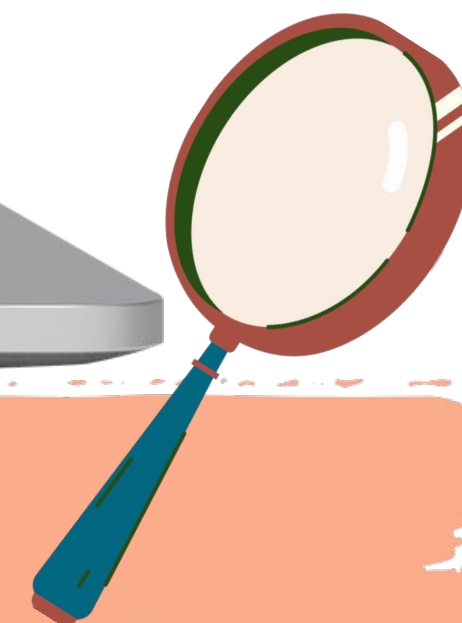
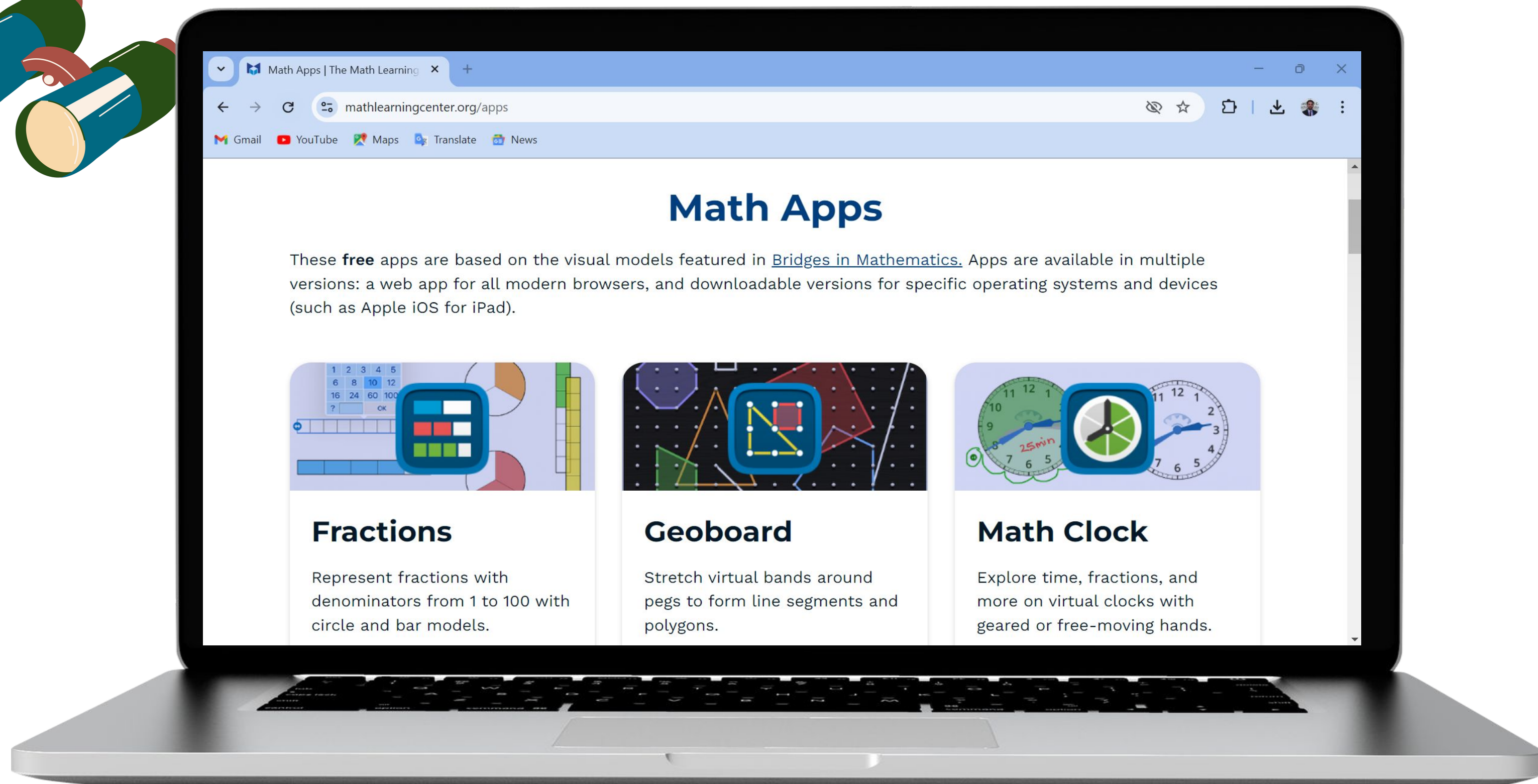
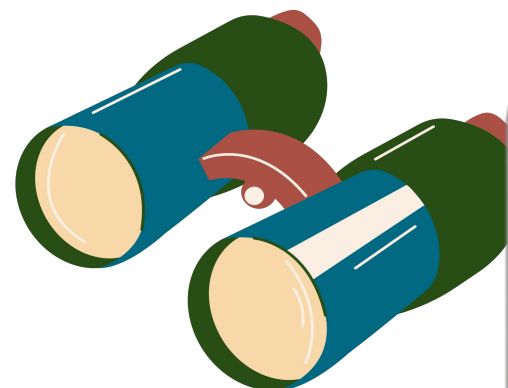
TuxMath is an arcade-style educational game designed to help students practice arithmetic skills. Players solve math problems to defend their penguin's planet from falling meteorites, combining fast-paced gameplay with math practice, making it ideal for reinforcing basic operations like addition, subtraction, multiplication, and division



Euclidean & Pythagorea









Overcoming Challenges

Access to technology

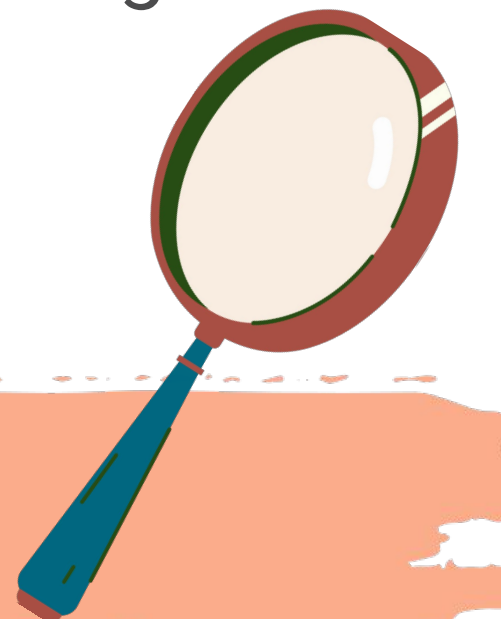
school based learning labs or demonstration


familiarity with technology

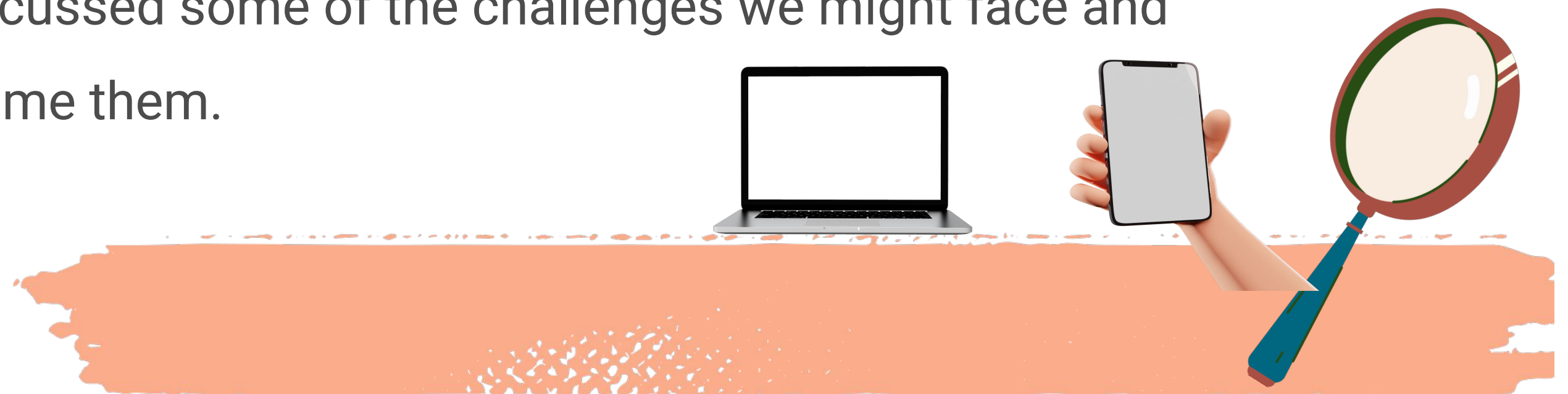
start small. Pick one tool, practice using it, & gradually introduce it to your students.

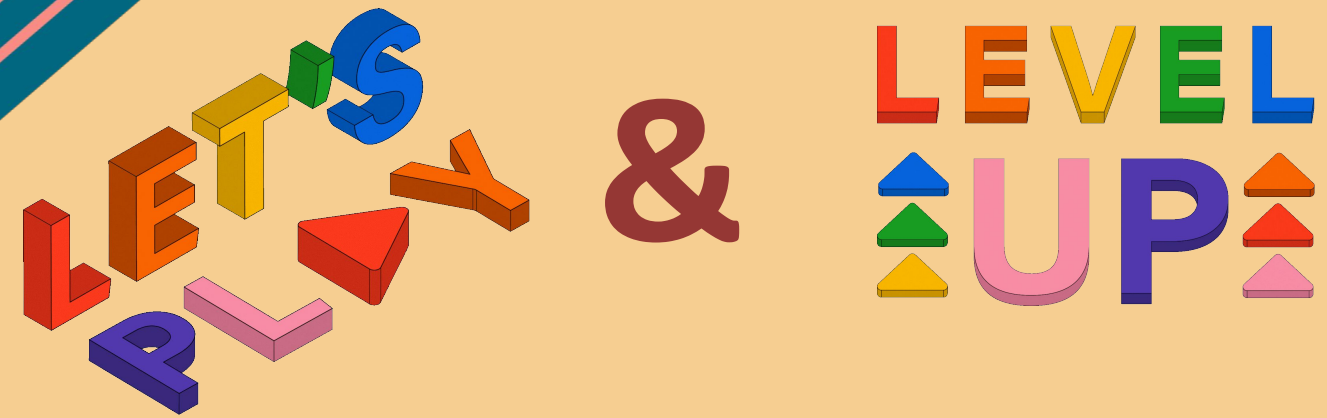
Distraction risks

establish clear guidelines, use apps with monitoring features, timed usage.



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- ✓ We explored the importance of using digital games and apps to teach mathematics.
 - ✓ We looked at specific apps and games like GeoGebra, geogebra, desmos, wolfram alpha, and mobile games like pythagorea, Euclidia, tuxmath , all of which provide interactive, engaging ways to teach math.
 - ✓ Finally, we discussed some of the challenges we might face and how to overcome them.





Thank you...

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