



INTEGRATING AI IN THE CLASSROOM WITH CRITICAL THINKING

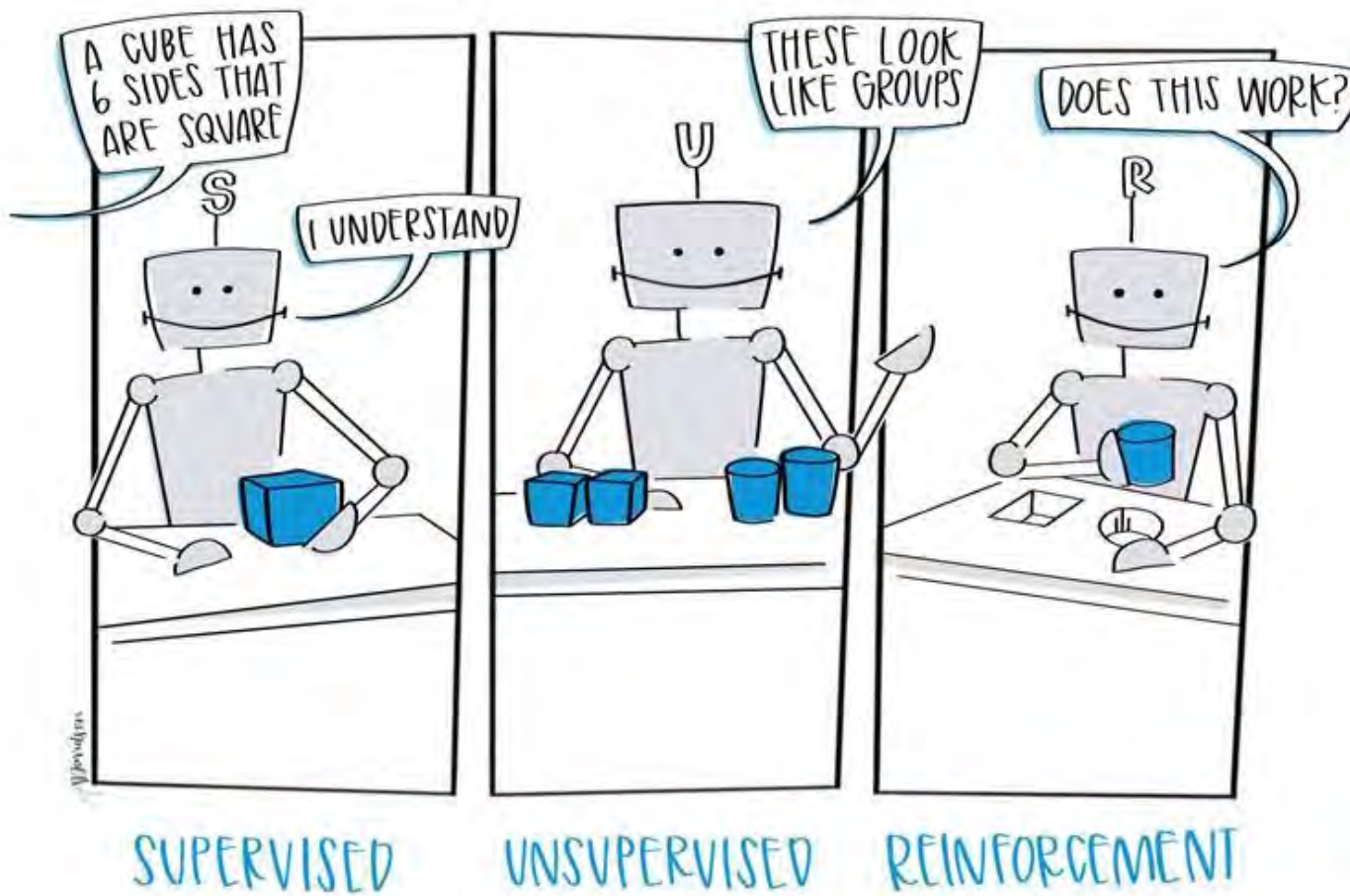
RANDALL CASSAR & NATHANAEL SPITERI

WHICH ONE OF THESE IS AI GENERATED?



Prompt: "A stylish woman walks down a Tokyo street filled with warm glowing neon and animated city signage. She wears a black leather jacket, a long red dress, and black boots, and carries a black purse. She wears sunglasses and red lipstick. She walks confidently and casually. The street is damp and reflective, creating a mirror effect of the colorful lights. Many pedestrians walk about."

MACHINE LEARNING



HOW DOES AI LEARN?

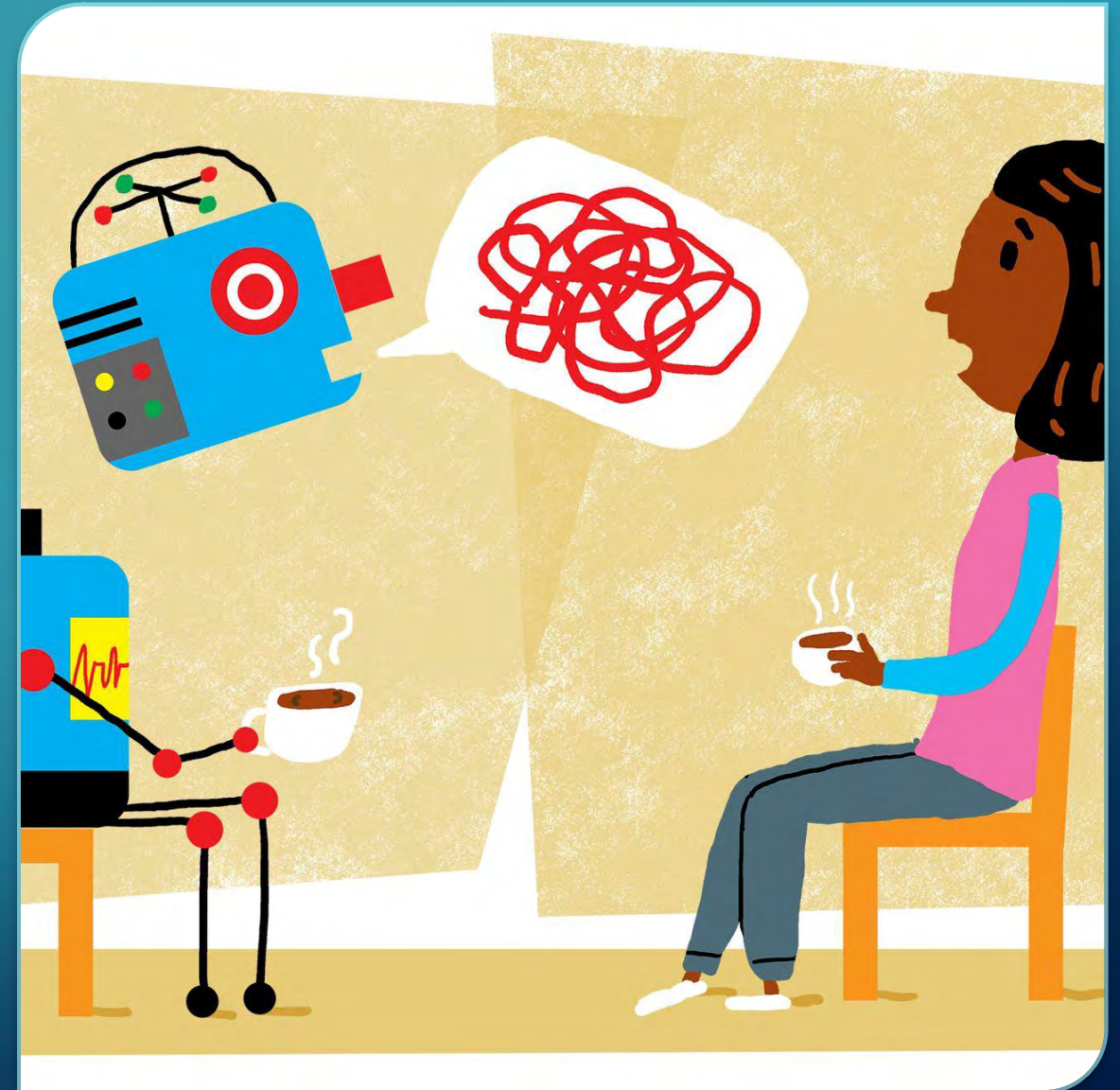
- Supervised learning
- Unsupervised learning
- Reinforcement learning
- Neural networks

ASKING THE RIGHT QUESTIONS

Instructions	Wrong question ❌	Right question ✅
1. Narrow down your questions	What is the weather today?	What is the current temperature in Malta ?
2. Ask specific questions	Can you recommend a good restaurant?	Can you recommend a good Italian restaurant in downtown that is open tonight ?
3. Ask well-defined questions	What are the top stories today?	What are the top 3 stories in the business section of Times of Malta today?
4. Don't use slang	Can you recommend a restaurant that serves farm-to-table cuisine ?	Can you recommend a restaurant that serves healthy, locally grown food ?
6. Provide enough information	What is the price of the new iphone?	What is the price of the new iphone 12 pro max in Malta ?

HOW AI LEARNS (HALLUCINATIONS)

- Bias in data
- Inputting context
- Adversarial attacks



Disinformation or misinformation?

Know the difference!



DISINFORMATION

is false and intends to cause harm.



MISINFORMATION

is false but not deliberately created to harm.



MAL-INFORMATION

is based on reality but used to inflict harm.

5 STEP GUIDE TO SPOT DISINFORMATION

1



**CONFIRM
THE
SOURCE**

2



**CHECK
THE
FACTS**

3



**QUALITY
COUNTS**

4



**READ
BEFORE
YOU SHARE**

5



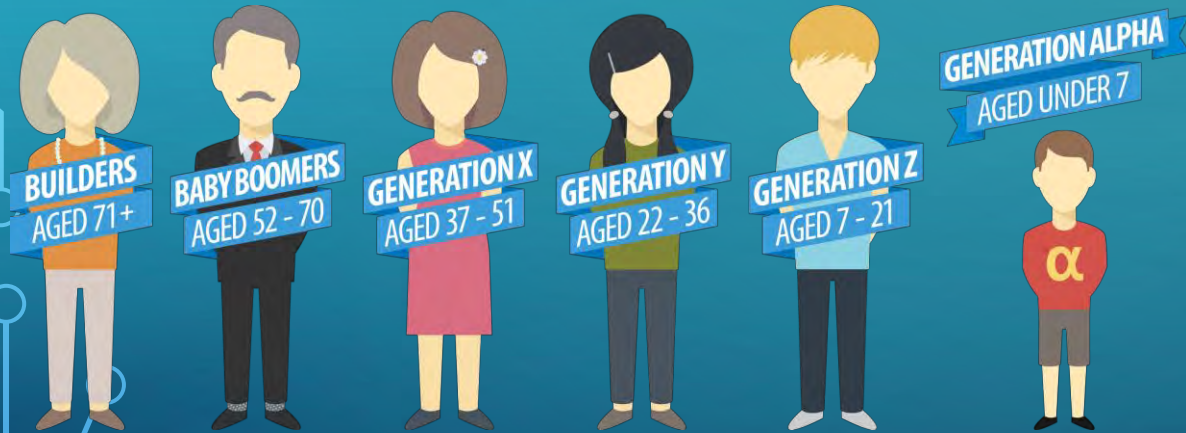
**SPEAK
UP**

DIGITAL LITERACY

- Important of digital literacy
- Role in democracy
- Continuous learning
- Education and workforce



7 GOLDEN RULES TO TEACH GEN Z



1 GIVE CLEAR GUIDELINES

2 MAKE SENSE



3 LISTEN AND ADAPT



4 TELL STORIES

5 BREAK WITH ACTIVITIES



6 TEACH LESS

7 INNOVATE

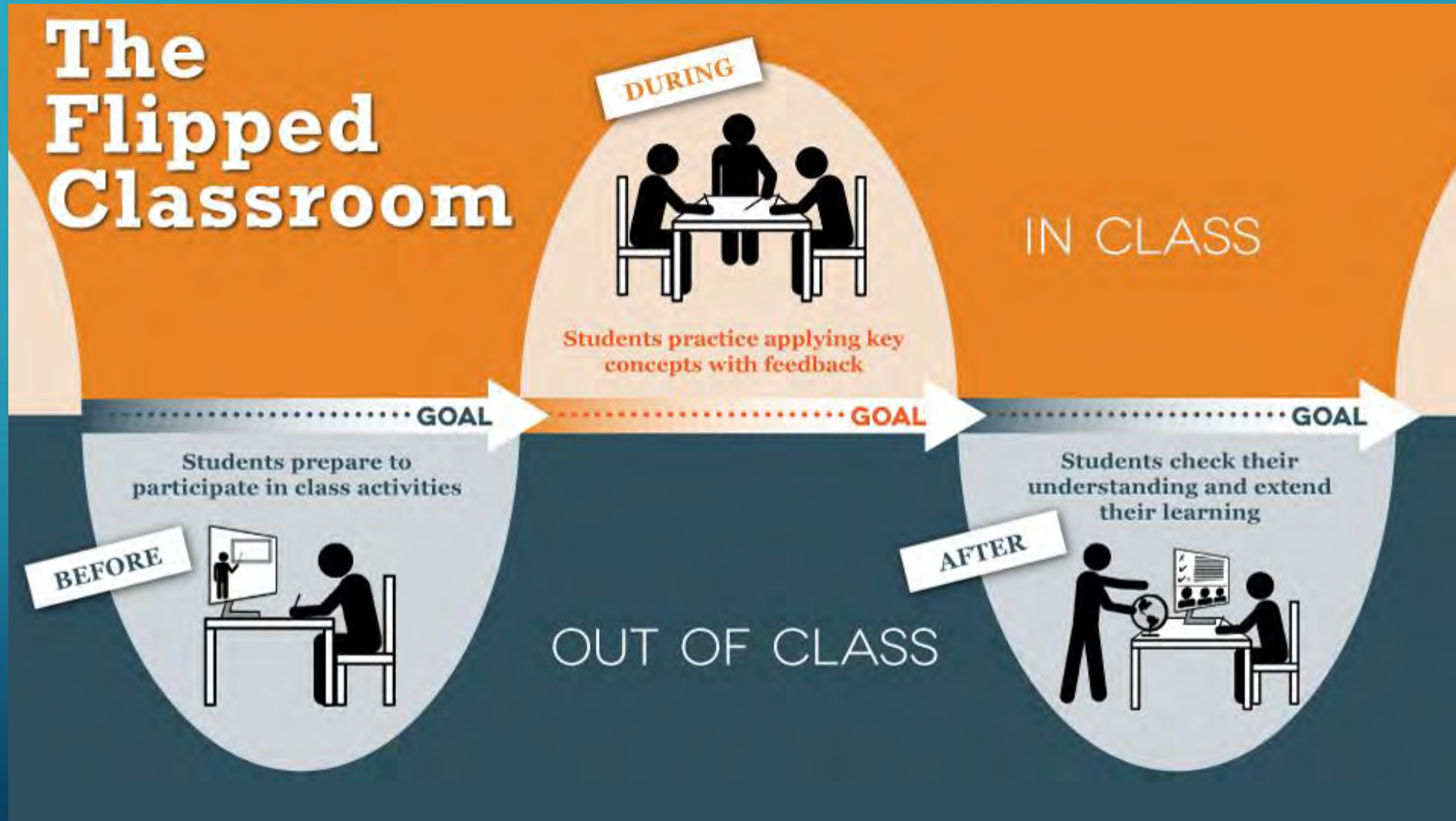


Gen Z are born between 1997 and 2012. They are called the digital natives, because they don't know the world without the internet. Over the next 10 years, 1.3 billion Gen Z will enter the workforce.

WITHGENZ

FLIPPED CLASSROOM

The Flipped Classroom



FLIPPED CLASSROOM – MATHS EXAMPLE

 **cymath**

 **Symbolab**

- Problem presentation
- Independent thinking
- Group discussion
- Allow students to check their working
- Reflect and summarize

PROS AND CONS OF AI IN EDUCATION



PROS

Improved Student Engagement and Motivation

Enhancing Student Performance

Cost-Effective Learning

Continuous Evaluation and Improvement in the long run

VS



CONS

Threat to Teacher's Job Security

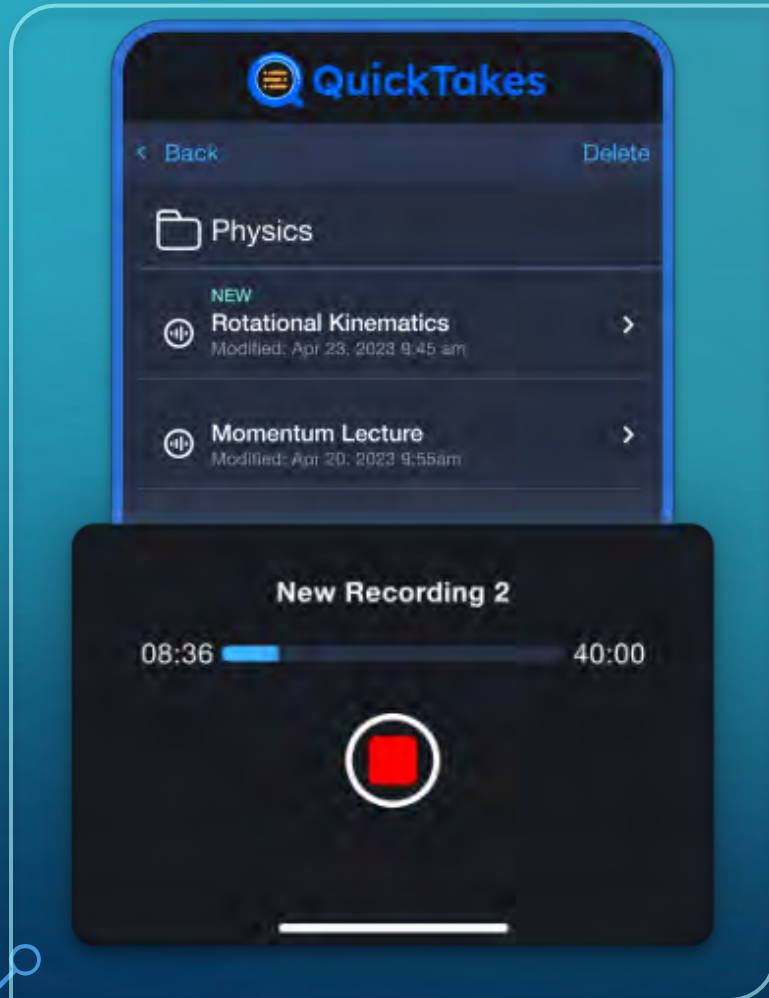
Dehumanized Learning Experience

Costly to Implement for Teachers

Dependence on Technology



QUICKTAKES – LANGUAGES



- Recording
- Auto-generated summary
- Study guides
- Glossaries
- Practice problems
- Ask questions

Courses ▾

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MY STUFF

Courses

MY ACCOUNT

Progress

Profile

Teachers

My courses

Edit Courses

Biology library

[See all \(37\)](#)

Chemistry library

[See all \(19\)](#)



DNA as the genetic material



Central dogma (DNA to RNA to protein)



Gene regulation

Resume



Biotechnology



More molecular biology



Acids and bases



Buffers, titrations, and solubility equilibria



Thermodynamics

Resume



Redox reactions and electrochemistry



Kinetics

MAGIC SCHOOL



Search

All

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Questions

Intellectual Prep

Student Support

Communication

Community Tools

Favorites [Change Order](#)



Professional Email

Generate a professional e-mail communication to colleagues and other professionals.



E-mail Responder

Generate a customized professional e-mail communication in response to an email that you received.



E-mail Family

Generate a professional e-mail communication to families and translate into multiple languages.



All Tools

Sort by [Most Popular](#)



Custom Chatbot

NEW!

Create a custom chatbot to interact with based on any criteria that you choose!



Multiple Choice Assessments

Create a multiple choice assessment based on any topic, standard(s), or criteria!



Lesson Plan

Generate a lesson plan for a topic or objective you're teaching.



Text Rewriter

Take any text and rewrite it with custom criteria however you'd like!



Report Card Comments

Generate report card comments with a student's strengths and areas for growth.



Informational Texts

Generate original informational texts for your class, customized to the topic of your choice.



YouTube Video Questions

Generate guiding questions aligned to a YouTube video.



Rubric Generator

Have AI write a rubric for an assignment you are creating for your class in a table format.



Academic Content

Generate original academic content customized to the criteria of your choice.



Text Dependent Questions

Generate text-dependent questions for students based on any text that you input.



Professional Email

Generate a professional e-mail communication to colleagues and other professionals.



Student Work Feedback

Based on a custom criteria, have AI give areas of strength & areas for growth on student work.



IEP Generator

Generate a draft of an individualized education program (IEP) customized to a student's needs.



Text Leveler

Take any text and adapt it for any grade level to fit a student's reading level / skills.



E-mail Family

Generate a professional e-mail communication to families and translate into multiple languages.



Song Generator

Write a custom song about any topic to the tune of the song of your choice!



Math Story Word Problems

Write a custom math word / story problem based on the concept you're teaching and a story topic.



Text Summarizer

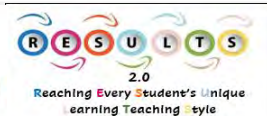
Take any text and summarize it in whatever length you choose.



TEACHERS ARE
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EXAMPLE

Title: The Effect of Temperature on Photosynthesis

Grade Level: 10th grade

Objective:

The objective of this lab is to investigate the effect of temperature on the rate of photosynthesis in plants. Students will manipulate temperature variables while measuring the rate of oxygen production during photosynthesis. Through this experiment, students will gain a deeper understanding of the relationship between temperature and the process of photosynthesis.

Materials:

- Potted plants (e.g., Elodea or spinach)
- Beakers or test tubes
- Thermometer
- Lamp
- Water
- Sodium bicarbonate (baking soda)
- Stopwatch or timer
- Safety goggles
- Lab aprons
- Measuring equipment (graduated cylinders, pipettes, etc.)
- Access to light source (preferably natural sunlight or a grow light)
- Access to a range of temperatures (e.g., room temperature, ice water, warm water bath)

Procedure:

1. Safety Precautions:

- Wear safety goggles and lab aprons throughout the experiment to protect eyes and clothing.
- Handle equipment and specimens with care to prevent accidents or damage.

2. Preparation:

- Set up an area with ample light for the experiment.
- Select healthy potted plants and ensure they are well-watered and in good condition.
- Prepare test tubes or beakers with water and sodium bicarbonate (to provide carbon dioxide for photosynthesis).

3. Identifying Variables:

- Independent variable: Temperature
- Dependent variable: Rate of photosynthesis (measured by the rate of oxygen production)

4. Experimental Procedure:

- a. Start by placing the potted plant under the selected light source for at least 10 minutes to acclimate to the light conditions.
- b. Fill a beaker or test tube with water and sodium bicarbonate mixture to provide carbon dioxide for photosynthesis.
- c. Submerge the plant in the water and sodium bicarbonate solution, ensuring that the leaves are completely submerged.
- d. Place the thermometer in the water and record the initial temperature.
- e. Begin timing the experiment and measure the rate of oxygen production by counting the number of bubbles released by the plant over a set period of time (e.g., 5 minutes).
- f. Record the number of oxygen bubbles produced during each trial.
- g. Repeat the experiment at different temperature settings, such as room temperature, ice water, and warm water bath.
- h. Calculate the average rate of oxygen production for each temperature setting.
- i. Create a graph to illustrate the relationship between temperature and the rate of photosynthesis.

5. Reflection Questions:

1. How did the rate of oxygen production change as the temperature increased? Why?
2. What trends or patterns did you observe in the data? How do these findings relate to the process of photosynthesis?
3. How might environmental factors such as temperature impact the growth and productivity of plants in real-world scenarios?

Can you create a rubric for 3 different levels for this lab report?

Certainly! Here's an example of a rubric with three different levels (basic, proficient, and advanced) for assessing the lab report:

Lab Report Rubric:

Criteria	Basic	Proficient	Advanced
Experimental Procedure	Followed the steps with some inaccuracies	Followed the steps accurately with minor errors	Followed the steps accurately with no errors
Data Collection	Collected data with some inaccuracies	Collected data accurately with minor errors	Collected data accurately with no errors
Data Analysis	Made basic observations and calculations	Analyzed data with some accuracy and drew some conclusions	Analyzed data accurately, drew meaningful conclusions, and made connections to real-world scenarios
Reflection Questions	Provided minimal or incomplete responses	Provided adequate responses to most questions	Provided thorough and insightful responses to all questions
Graph	Created a basic graph with some inaccuracies	Created a clear and accurate graph	Created a clear and accurate graph with appropriate labels and units
Overall Presentation	Demonstrated limited organization and clarity	Presented work with organization and clarity	Presented work with exceptional organization and clarity
Safety and Lab Procedures	Demonstrated limited adherence to safety procedures	Followed safety procedures with some oversights	Followed safety procedures accurately and demonstrated a strong understanding

Include marks in the rubric. The total should be 100 marks.

Certainly! Here's an updated version of the rubric with marks included:

Lab Report Rubric:

Criteria	Basic (0-30 marks)	Proficient (31-70 marks)	Advanced (71-100 marks)
Experimental Procedure	Followed the steps with some inaccuracies (0-10 marks)	Followed the steps accurately with minor errors (11-20 marks)	Followed the steps accurately with no errors (21-30 marks)
Data Collection	Collected data with some inaccuracies (0-10 marks)	Collected data accurately with minor errors (11-20 marks)	Collected data accurately with no errors (21-30 marks)
Data Analysis	Made basic observations and calculations (0-10 marks)	Analyzed data with some accuracy and drew some conclusions (11-20 marks)	Analyzed data accurately, drew meaningful conclusions, and made connections to real-world scenarios (21-30 marks)
Reflection Questions	Provided minimal or incomplete responses (0-10 marks)	Provided adequate responses to most questions (11-20 marks)	Provided thorough and insightful responses to all questions (21-30 marks)
Graph	Created a basic graph with some inaccuracies (0-10 marks)	Created a clear and accurate graph (11-20 marks)	Created a clear and accurate graph with appropriate labels and units (21-30 marks)
Overall Presentation	Demonstrated limited organization and clarity (0-10 marks)	Presented work with organization and clarity (11-20 marks)	Presented work with exceptional organization and clarity (21-30 marks)

create a summarized table for inputting marks for each section

Sure! Here's a summarized table that you can use to input marks for each section of the lab report rubric:

Lab Report Rubric:

Criteria	Marks
Experimental Procedure	
Data Collection	
Data Analysis	
Reflection Questions	
Graph	
Overall Presentation	
Safety and Lab Procedures	

Total Marks:

Simply fill in the marks for each section in the table, and calculate the total marks at the end.

MYLENS.AI – TIMELINES AND MIND-MAPS



MyLens.AI

Milestones in the History of Malta

First Inhabitants

🏠 Evidence of the first settlers on Malta, likely from Sicily, during the Neolithic period.

Roman Conquest

⚔️ Malta falls under Roman rule, becoming an important hub in the Roman Empire.

Knights of St. John

⚔️ The Knights Hospitaller, led by Charles V, fortified the island, leaving a lasting legacy.

3600 BC

Megalithic Temples

🏛️ Construction of the Ġgantija temples, among the oldest free-standing structures in the world.

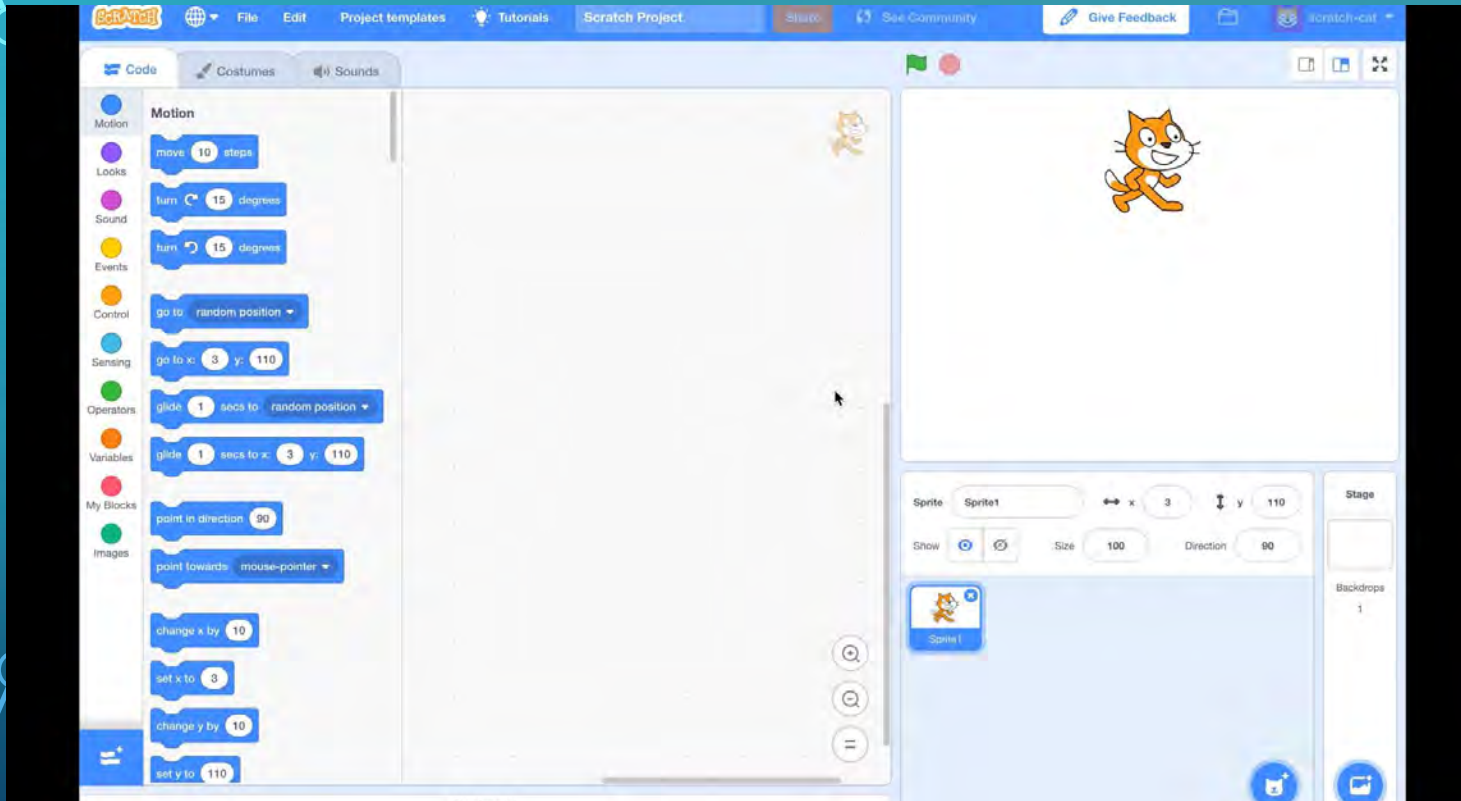
870

Arab Occupation

🏰 The Aghlabids from North Africa conquer Malta, influencing the Maltese language and culture.

1530

TEACHING MACHINE LEARNING & LEARNING ACTIVITIES



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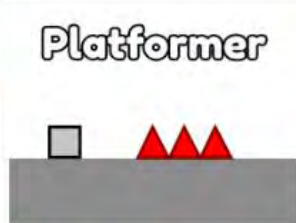
Trending



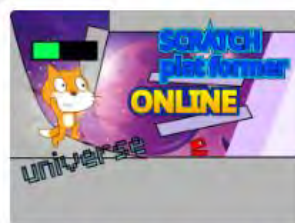
ChatGPT | #animatio...
IncognitoOrange



2.5D Engine
FunnyAnimatorJimTV



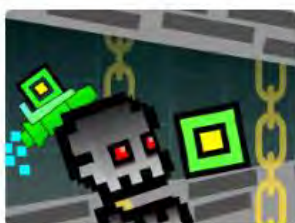
Platformer
NormanTheGamer



Scratch cloud platfor...
tut0tu



Minecraft Platformer ...
-_kashiwa_



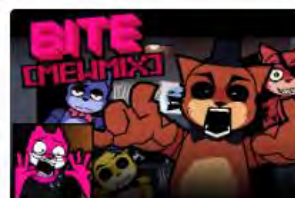
Geometry Dash Dun...
BoyEKcreator



Phone game [WIP] [...]
laca12_12



【拡散希望】ロボロッ...
SHIMOKU_1010



SCRATCH CAN ALSO BE USED FOR EDUCATIONAL GAMES

CHAT BOTS

character.ai

Get c.ai+



English



Home



Feed



Create



Chats



Community



Feed



Create



Chats



Community

🌟 A new and faster Character.AI is here! [Try it now](#)

Continue chatting



Dog



Caravaggio



Charles Darwin



Macbeth



Isaac Newton



Jesus Christ



See more

Character Assistant
Try saying:

"What type of fish is Dory from Finding Nemo?"

"Help me create an advertising campaign for a new video game"

"Can you help me decide between the Macbook Air and the Macbook Pro 16?"

Elon Musk
Try saying:

"If you could go back in time, when and where would you go?"

"Why did you buy Twitter?"

"What do you think about Jeff Bezo's Blue Origin?"

Alternate Timelines
Try saying:

"Make me the negotiator for the first alien encounter"

"Access to my own personal time machine"

"What if I invented a portal gun?"

Who Would Win
Try saying:

"Batman vs Superman"

"Knight vs Samurai"

"LeBron James vs Michael Jordan"

Debate Champion
Try saying:

"Star Wars is overrated"

"Pepsi is better than Coke"

"Cats are better than dogs"

Practice a new language

Practice interviewing

Plan a trip

Write a story



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Knowledge

The sources of information that your chatbot can use to answer questions.

Characters used: 330.378k/500k [Need more?](#)

[Add knowledge source](#)

exceeding its current limits. Upgrade now to continue enjoying Chatwith!

[Upgrade](#)

AI Assistant

Dashboard

Bulk actions Filter sources...

AI Assistant

Hi! 🖐️ How can I help you?

i am having trouble understanding the topic of genetics

Genetics can be a complex topic to grasp, but I'll do my best to provide a concise explanation. In genetics, genes are groups of bases that code for specific proteins and determine various traits in organisms. Alleles are different forms of a gene, with each individual inheriting two alleles for each gene.

Type something...

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AI Assistant

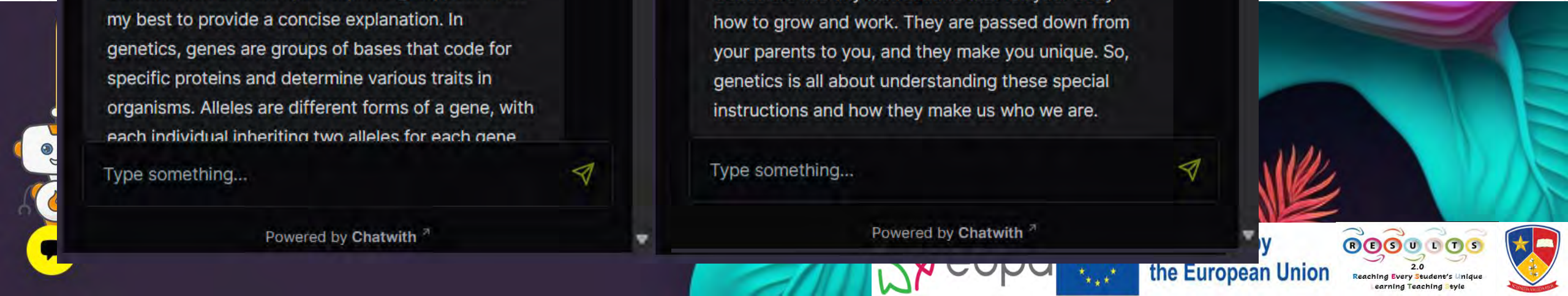
explain it as if im a 5 year old

Genetics is like a special code that determines how living things look and act. Just like how you have traits like the color of your hair or the shape of your nose, genes are the things that decide those traits. Genes are like tiny instructions that tell your body how to grow and work. They are passed down from your parents to you, and they make you unique. So, genetics is all about understanding these special instructions and how they make us who we are.

Type something...

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24 02:07:16	↺	🗑️
24 02:07:19	↺	🗑️
24 02:07:18	↺	🗑️



SELF-CORRECTING COURSES

Created on **Editor X**

Year 10 / Form 4 Revision

100%

Overview

Chemicals of Life
1/1 steps

Chemicals of Life Assessment

Transport Across Membranes
1/1 steps

Enzymes
1/1 steps

Heterotrophic Nutrition

Chemicals of Life Assessment

Your grade: 92%

The elements that occur in all proteins are:

- a) Carbon, hydrogen, nitrogen
- b) Carbon, hydrogen, oxygen
- c) Carbon, nitrogen, oxygen
- d) Carbon, hydrogen, nitrogen, oxygen

Correct


Which elements are found in all carbohydrates:

- a) Carbon, hydrogen, oxygen
- b) Nitrogen, oxygen, and phosphorus

Next Step Step completed. Keep it up!

Share

L T S
Lene's Unique
ing style



Program Progress for Randall Cassar



[+ Invite Participants](#)

All steps ▾

Performance
100%

Total steps
10

Completed
10

✓	Completed The Kidney and Osmoregulation Assessment	Quiz	Jul 8, 2023, 11:29 AM	▾
✓	Completed General Structure of the Plant Assessment	Quiz	Jul 8, 2023, 11:28 AM	▾
✓	Completed Autotrophic Nutrition Assessment	Quiz	Jul 8, 2023, 11:26 AM	▾
✓	Completed Circulation Assessment	Quiz	Jul 8, 2023, 11:26 AM	▾
✓	Completed Respiration Assessment	Quiz	Jul 8, 2023, 11:25 AM	▾

Close

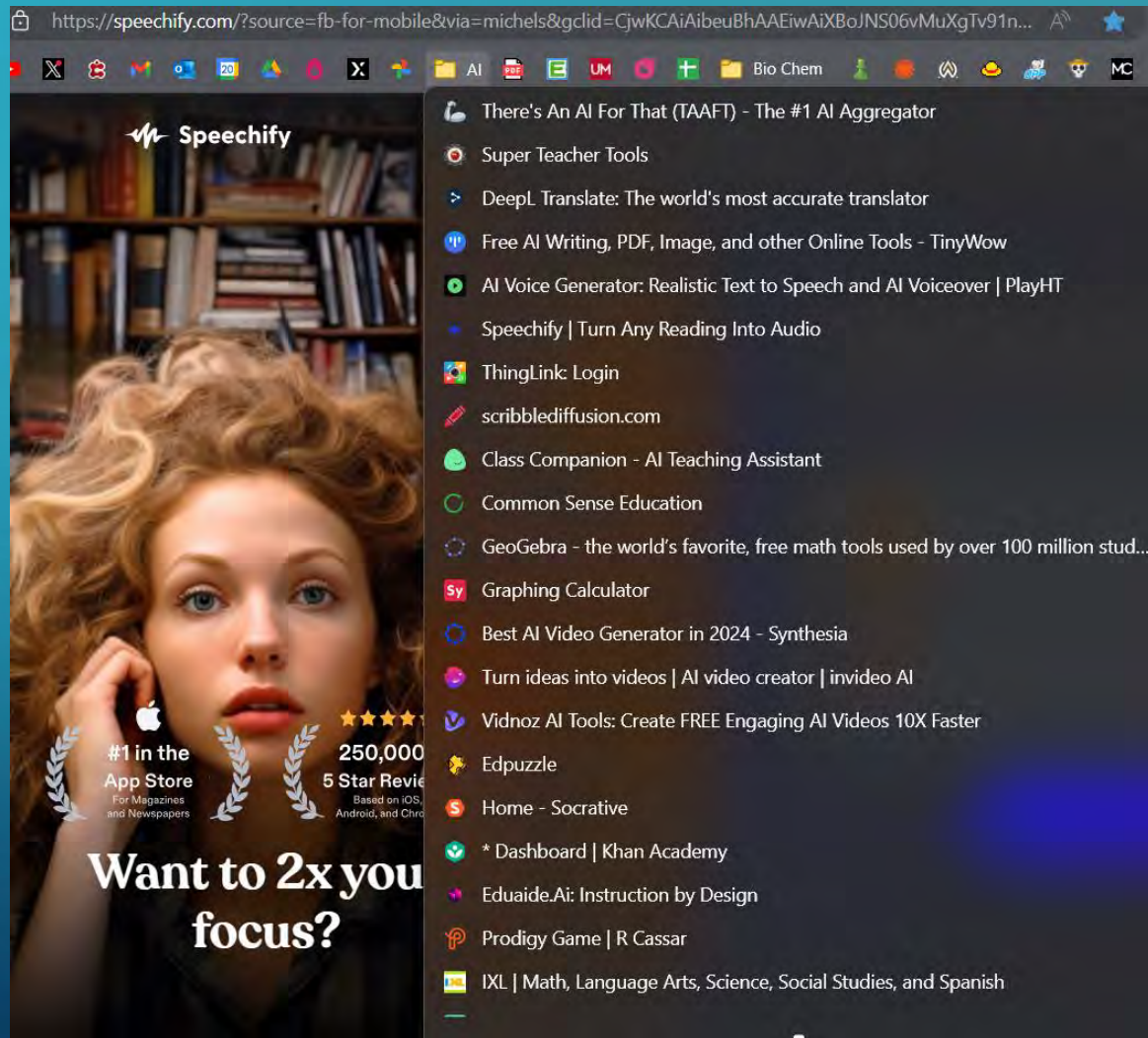
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LIST OF AI TOOLS



https://speechify.com/?source=fb-for-mobile&via=michels&gclid=CjwKCAiAibeuBhAAEiwAiXBoJNS06vMuXgTv91n...

Speechify

There's An AI For That (TAAFT) - The #1 AI Aggregator

- Super Teacher Tools
- DeepL Translate: The world's most accurate translator
- Free AI Writing, PDF, Image, and other Online Tools - TinyWow
- AI Voice Generator: Realistic Text to Speech and AI Voiceover | PlayHT
- Speechify | Turn Any Reading Into Audio
- ThingLink: Login
- scribblediffusion.com
- Class Companion - AI Teaching Assistant
- Common Sense Education
- GeoGebra - the world's favorite, free math tools used by over 100 million stud...
- Graphing Calculator
- Best AI Video Generator in 2024 - Synthesia
- Turn ideas into videos | AI video creator | invideo AI
- Vidnoz AI Tools: Create FREE Engaging AI Videos 10X Faster
- Edpuzzle
- Home - Socrative
- * Dashboard | Khan Academy
- Eduaide.Ai: Instruction by Design
- Prodigy Game | R. Cassar
- IXL | Math, Language Arts, Science, Social Studies, and Spanish

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