



# Enhancing teaching and learning using digital tools

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# AGENDA

- ☐ Learning management system (LMS)
  - Google classroom
  - Moodle
  - Canva
- ☐ Simulation tool for STEM edu
- ☐ Engagement tools / Classroom interaction tools
  - Quizizz
  - Kahoot
  - Slido
- ☐ Notion tool
- ☐ Fastone capture (lightweight tool for video screen recording)





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# Introduction to Learning management system (LMS)







# WHAT IS LMS?

- LMS stands for **Learning management system**
- LMS is a software application or platform used to **create, manage, deliver, and track** educational courses, training programs, or learning and development initiatives.
- LMSs are commonly used in schools, universities, businesses, and online learning platforms to facilitate both in-person and remote learning.



Google Classroom

(Basic LMS)



(Advance LMS)



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# GOOGLE CLASSROOM

<https://classroom.google.com/>



Google Classroom

## Virtual classroom (basic LMS)

- ☐ Share materials
- ☐ Collect assignment
- ☐ Quiz
- ☐ Etc.

- ☐ **Google Classroom** is a free web-based learning management system (LMS) developed by Google.
- ☐ It is designed to help teachers create, distribute, and manage assignments in a paperless environment.
- ☐ Google Classroom integrates with other Google services like Google Drive, Docs, Sheets, Slides, Gmail, and Meet, making it an effective tool for online and blended learning.

**Google Classroom is an essential tool for teachers, students, and schools looking to enhance online learning, assignments, and communication.**  
**It is user-friendly, efficient, and completely free, making it a great choice for both in-person and remote education.**

# GOOGLE CLASSROOM

## Features

- **Easy Assignment Management** – Teachers can create, distribute, and grade assignments digitally.
- **Integrate with Google Apps** – Works with Google Drive, Docs, Sheets, and more.
- **Communication & Collaboration** – Teachers and students can interact via announcements, comments, and video conferencing (Google Meet).
- **Accessibility** – Works on desktops, tablets, and mobile devices (iOS & Android).
- **Paperless & Organized** – Eliminates the need for physical paperwork and keeps everything stored in the cloud.
- Just only need a **Gmail account**







# GETTING STARTED WITH GOOGLE CLASSROOM

## 1. Accessing Google Classroom

- Visit **Google Classroom** <https://classroom.google.com/>
- Log in using a **Google Account**

## 2. Setting Up a Classroom (For Teachers)

- Click "+" (Create Class) on the top right.
- Enter the **class name, section, subject, and room**.
- Click "**Create**", and a unique **class code** will be generated.
- Share the class code with students for them to join.





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https://classroom.google.com



Classroom



## Introducing Generative AI for Educators

A two-hour, no-cost online course for K-12 educators. Save time and enhance lesson planning with generative AI.

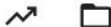
[Learn more](#) [G](#)

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Informatique 2024-2...

Informatique 2023-2...  
Informatique 2023-24 RULE

Informatique G2 Exce...  
G2







# GETTING STARTED WITH GOOGLE CLASSROOM

## 3. Joining a Class (For Students)

- Click "+" (Join Class).
- Enter the **class code** provided by the teacher.
- Click **"Join"** to access class materials.

## 4. Managing Assignments & Materials

- **Creating Assignments:** Teachers can upload files, attach Google Drive documents, or create quizzes.
- **Submitting Assignments:** Students can turn in assignments using Google Docs, PDFs, images, or other file types.
- **Grading & Feedback:** Teachers can grade assignments, add comments, and return work.





☰

Classroom > [Redacted]

Stream

Classwork

People

Grades

+ Create

All topics

All topics

Final exam

Midterm

Lecture note

Assignment

Final exam

Final exam submission Section 2 (exercis...

Midterm

Midterm exam part2's submission

Stream

Classwork

People

Grades

Assignment

Assignment 10- Goal seek

Assignment 9- index and match function...

Assignment8-hlookup and vlookup

Assignment7-vlookup


Assignment6

Assignment5

Assignment 4

Assignment3



 Assignment7-vlookup

Due Jan 10, 11:59 PM


Posted Jan 10

24







Turned in

2

Assigned

 Assignment 7-vlookup.jpg  
Image


[View instructions](#)




Instructions

Student work

Return









100 points

☐  All students

Sort by status

☐ Turned in

<input type="checkbox"/>	 Bunrat Moeun	___/100 Done late
<input type="checkbox"/>	 channseray oeurn	___/100
<input type="checkbox"/>	 Deth Sopheapwatey	___/100
<input type="checkbox"/>	 HAM SOTHEABORAK	___/100
<input type="checkbox"/>	 Kheang Hengly	___/100
<input type="checkbox"/>	 Kunthea Hak	___/100

Assignment6

24

Turned in

2

Assigned

☒ Accepting submissions

Turned in

 Bunrat Moeun

2 attachments  
Turned in late

 channseray oeurn

3 attachments  
Turned in

 Deth Sopheapwatey

Ass(6) Vatthey.pdf  
Turned in

 HAM SOTHEABORAK

3 attachments  
Turned in

 Kheang Hengly

2 attachments  
Turned in

 Kunthea Hak



 Loern Meyjing



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 Mok Sokraksa



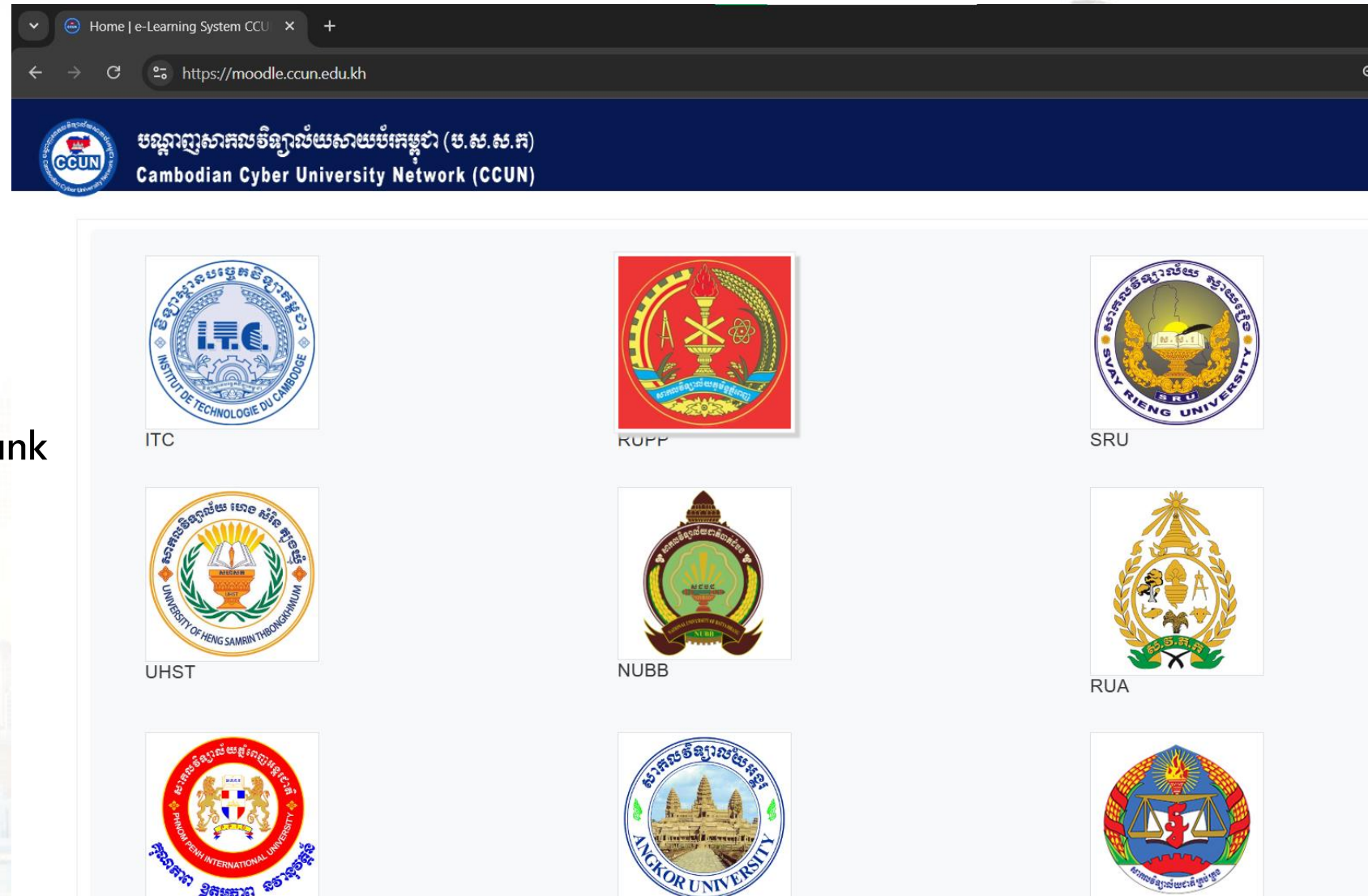
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# MOODLE LMS

- ☐ Manage **assignment**
- ☐ Manage **quiz**
- ☐ Random quiz from question bank
- ☐ Student **activity report**
- ☐ Task **completion report**
- ☐ Register **attendance**  
(scan QR, input attendance code to check in)
- ☐ Etc.





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# MOODLE LMS

Course & activity  
management



បណ្តាញសាកលវិទ្យាល័យសាស្ត្របច្ចេកវិទ្យា (ប.ស.ស.ក)  
Cambodian Cyber University Network (CCUN)

2024-25-I2TC-S2-DTCI ...

[Home](#) [Dashboard](#) [Events](#) [My courses](#) [This course](#)



Progress % 0

TP GIC 1A & 1B Submission

Restricted



Record attendance



Quiz cour-session

Progress: 0%



Assignment submission (cour session)

assignment

Progress: 0%



Week1- Getting started with C++ programming and review

Progress: 29%



Week2- Recursive

Progress: 17%



Week3- File IO

Progress: 17%



Week4- Pointer

Progress: 11%



Week5- Linked list 1

Progress: 0%



Week6- Linked list 2 and launch project teamwork

Progress: 0%



Week7- Linked list 3- Double linked list

Progress: 0%



Week8- Midterm EXAMS



Week9- Queue

Progress: 0%



Week10- Stack

Progress: 0%



Week11- Sorting algorithm

Progress: 0%



Week12- Hash table buckets

Progress: 0%



Week13- Tree



Week14- Basic OOP



Week15- Review



Week16- Final exam

Root  
Right-child of root.  
Leaf

Encapsulation Abstraction  
OOP CONCEPT  
Polymorphism  
Inheritance

hash	buckets
00	
01	521-8976
02	521-1234
03	
:	:
13	
14	521-9655
15	



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# Introduction to simulation tool for *STEM* edu







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# PHET SIMULATION TOOL

<https://phet.colorado.edu/>

❑ **PhET Interactive Simulations** is a free online platform developed by the University of Colorado Boulder.

❑ It provides interactive, research-based simulations in subjects such as **Physics, Chemistry, Biology, Earth Science, and Mathematics.**

❑ These simulations help students visualize and experiment with scientific concepts in a highly interactive and engaging way.

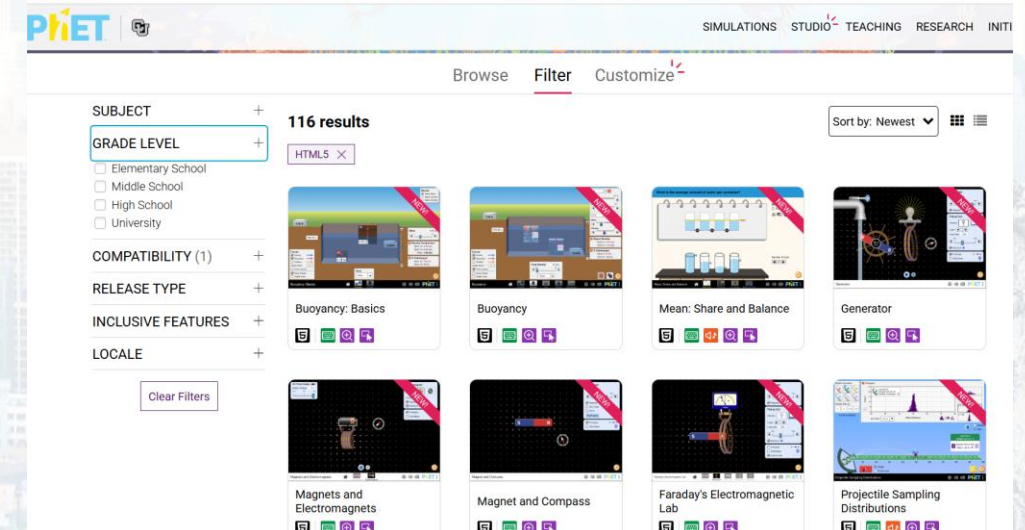
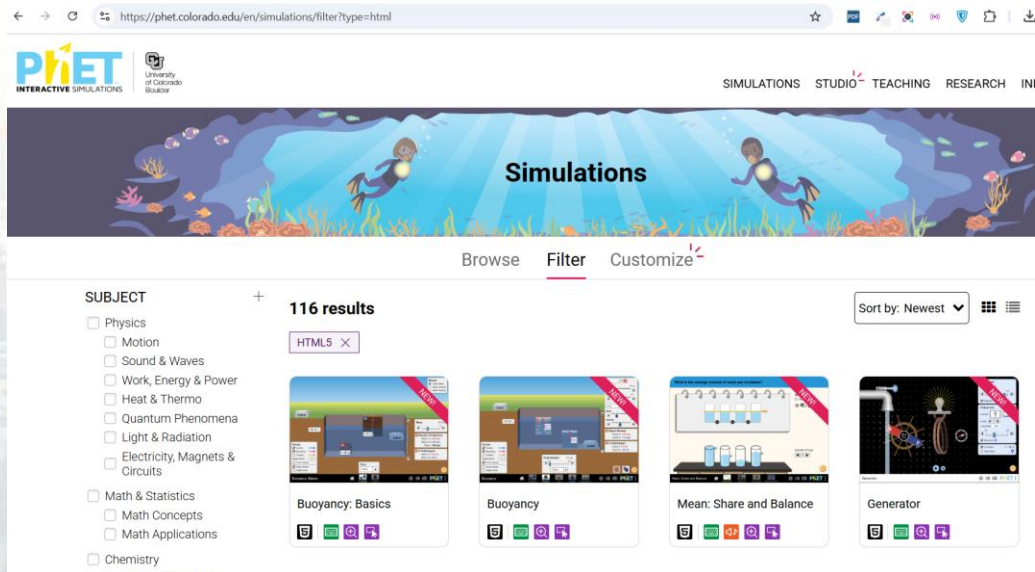
The screenshot shows the PhET website header with the URL <https://phet.colorado.edu/>, the PhET logo, and the University of Colorado Boulder logo. Navigation links include SIMULATIONS, STUDIO, TEACHING, and RESEARCH. The main image shows a student in a red hoodie using a laptop. Overlaid text reads "Interactive Simulations for Science and Math" with a button "EXPLORE OUR SIMS". Below the image, it states "Over 1.7 billion simulations delivered".

**PhET simulations** are designed based on extensive educational research to ensure intuitive learning, allowing users to manipulate variables, observe real-time effects, and enhance conceptual understanding.



# PHET SIMULATION TOOL

- **Free and Open Access** – Available online for free.
- **Interactive & Visual** – Provides engaging, hands-on learning experiences.
- **Cross-Platform Support** – Accessible on desktops, tablets, and mobile devices.
- **Customizable for Teaching** – Teachers can integrate it into lesson plans, quizzes, or virtual labs.
- **Available in Multiple Languages** – Supports various international languages.







<https://phet.colorado.edu/en/simulations/generator>

← → ↻ [https://phet.colorado.edu/sims/html/generator/latest/generator\\_all.html](https://phet.colorado.edu/sims/html/generator/latest/generator_all.html) ☆ PDF ↗ 🔍 🔒 📁 ⬇️ 🌐 Finish update ⋮

**Bar Magnet**  
Strength: 75%  
0% 50% 100%  
☒ Magnetic Field (B)

**Pickup Coil**  
Indicator   
Loops: ◀ 2 ▶  
Loop Area: 50%  
20% 100%  
☒ Electrons ⚡

☒ Compass S ↔ N  
☐ Field Meter ⊕

0.0 RPM

Generator

⚙️ 🔊 🖱️ PHET ⋮







Co-funded by



The simulation shows a generator setup. On the left, a hand crank is connected to a shaft that rotates a bar magnet. The magnet is labeled with 'N' (North) and 'S' (South) poles. A speedometer indicates the rotation speed is 56.9 RPM. The magnet is surrounded by a grid of red and black arrows representing the magnetic field. To the right of the magnet is a pickup coil, which is a series of loops of wire. A light bulb is connected to the coil, and it is shown glowing with yellow rays emanating from it. A compass is also present, showing the direction of the magnetic field. The background is dark with a grid of small red and black arrows.

**Bar Magnet**  
Strength: 75%  
0% 50% 100%  
Magnetic Field (B)

**Pickup Coil**  
Indicator: Light bulb, Voltmeter  
Loops: 2  
Loop Area: 70%  
20% 100%  
Electrons  
Compass  
Field Meter

56.9 RPM

Generator

Co-funded by

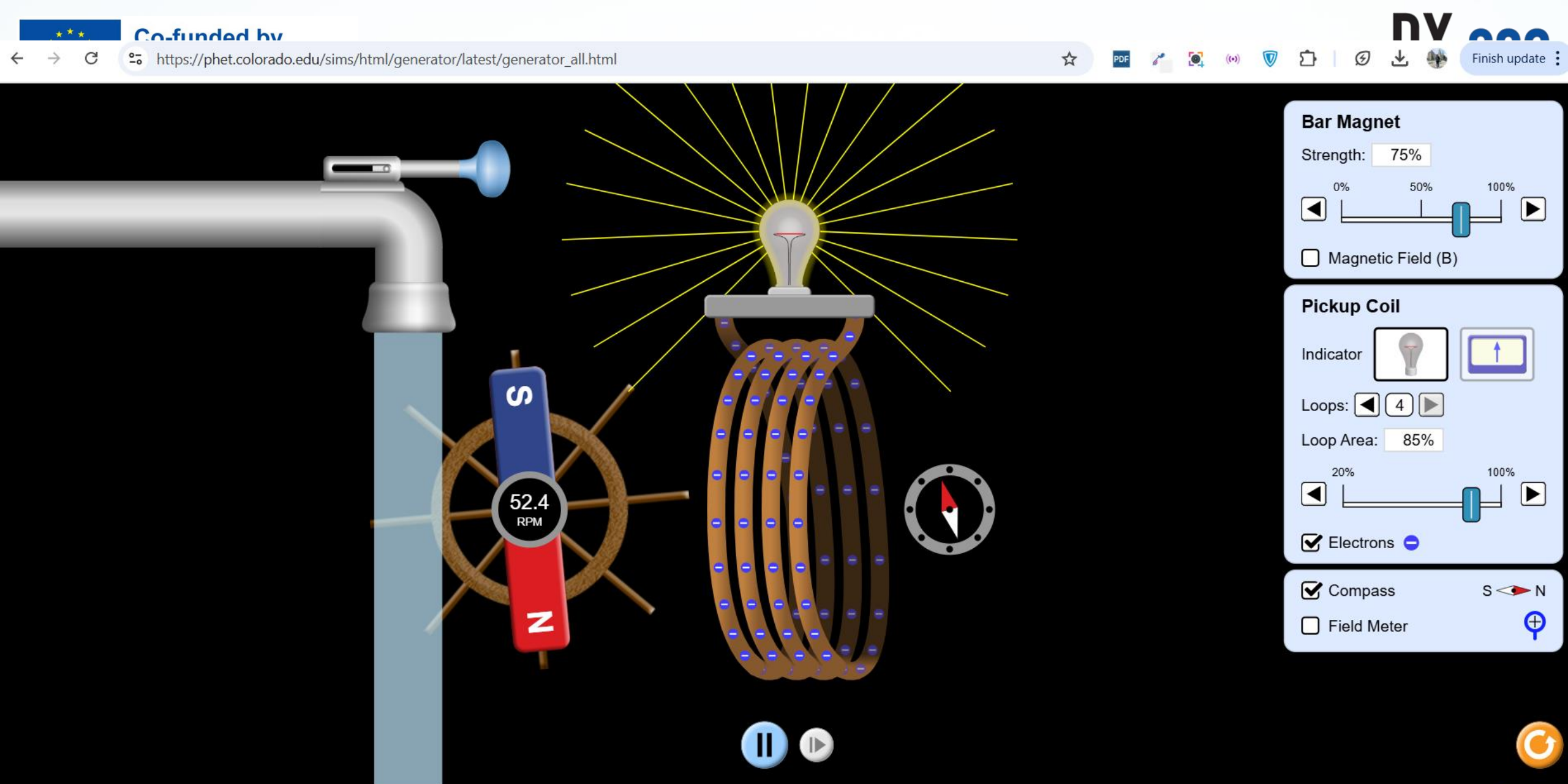
nv

Finish update

← → ↺

https://phet.colorado.edu/sims/html/generator/latest/generator\_all.html

☆ PDF ↗ 📷 🎧 🛡️ 📁 ⌂ ⬇️ 🏠





**Bar Magnet**

Strength: 75%

0% 50% 100%

☐ Magnetic Field (B)


**Pickup Coil**


Indicator  


Loops:

Loop Area: 85%

20% 100%

☒ Electrons 

☒ Compass S  N

☐ Field Meter 

52.4 RPM

75%

4

85%





20% 100%

Electrons

Compass

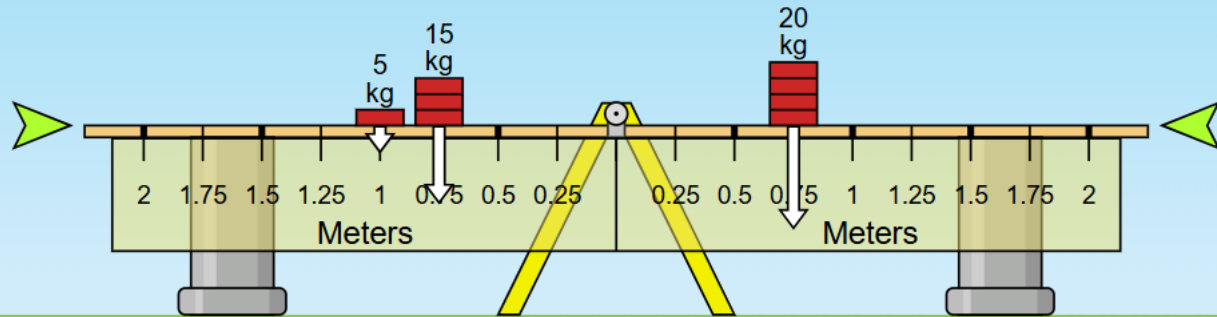
Field Meter

Generator



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Show

- ☒ Mass Labels
- ☒ Forces from Objects
- ☒ Level

Position

- ☐ None
- ☒ Rulers
- ☐ Marks

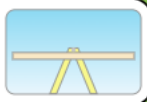

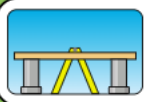
Bricks

5 kg

10 kg

15 kg

20 kg



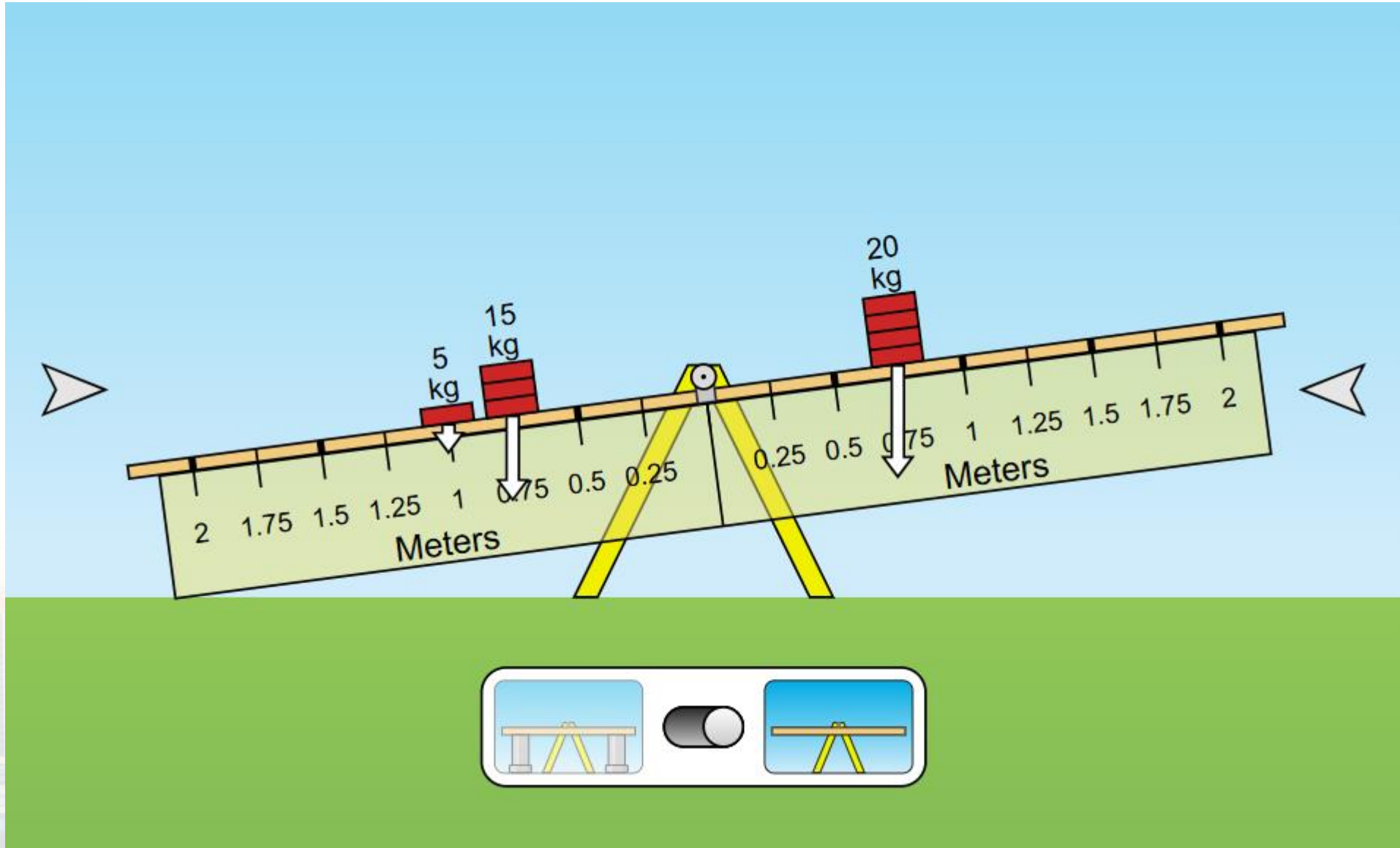






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# Introduction to tools for classroom interaction





# CLASSROOM INTERACTION

- ❑ **Quizizz, Slido and Kahoot!** are three of the most popular game-based learning platforms used by teachers to make learning fun and interactive.
- ❑ They are interactive tools used for **quizzes, polling, and audience engagement.**



<https://quizizz.com/>



<https://kahoot.com/>



<https://www.slido.com/>



# AN OVERVIEW COMPARISON


Feature	Quizizz	Kahoot!	Slido
Best for	Self-paced quizzes & gamified learning	Live, competitive quizzes & classroom engagement	Live polling, Q&A, and audience interaction
Main Use	Education & training	Classrooms & corporate learning	Meetings, events, and presentations
Mode	Live & asynchronous	live	Live
Platform	Web & mobile app	Web & mobile app	Web & mobile app



# AN OVERVIEW COMPARISON

Feature	Quizizz	Kahoot!	Slido
Free Plan	✓ Yes	✓ Yes	✓ Yes
Participants in free plan	100	40	100
Paid Plans	Quizizz Super (Personal & School), Quizizz for Business	Kahoot!+ (Home & Business), Kahoot! EDU	Slido Engage, Slido Professional, Slido Enterprise
Pricing (Starting at)	~\$3/month (education), ~\$19/month (business)	~\$10/month (home), ~\$17/month (business)	~\$8/month (Engage), ~\$15/month (Professional)

# LIMITED PLAYERS



Feature	Quizizz	Kahoot!
<b>Free Plan</b>	Up to 100 players per quiz	Up to 40 players per quiz (Basic)
<b>Paid Plans</b>	Varies by plan: 100–500 players	Up to 2,000 players (Enterprise plan)
<b>Best For</b>	Large classes, asynchronous practice	Live classroom competitions





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# QUIZIZZ

<https://quizizz.com/>

→ ↻ 🔍 https://quizizz.com/admin/quiz/67d951494888d0b4809fc1e3/edit ☆ PDF ↗ 🗺️ 🎧 🛡️ 📁 🧑 Finish update ⋮

Lesson 1 Computer Basic ⚙️ Settings ▶️ Preview 📄 Publish

**QUIZIZZ** Actions

- ✦ Add similar questions >
- ✦ Add answer explanations >
- ✦ Translate quiz >
- ⋮ More options >

🔄 AI limit 3/10 per month ⓘ

**Bulk update questions**

- 🕒 Time ▾
- ✓ Points ▾

**Import from**

- 📄 Google Forms >
- 📊 Spreadsheet >


**Search questions from Quizizz Library**

Lesson 1 Computer Basic 🔍 Search questions

**10 questions (10 points)** + Add question

⋮ ✓ 1. Multiple Choice 10 seconds ▾ 1 point ▾ AI 📄 🗺️ 🎧 🛡️ 📁 🧑 Edit 🗑️

1. តើ Mouse ប្រើសម្រាប់ធ្វើអ្វី?




Answer choices

- ✓ ចុចបញ្ជា
- ✗ បញ្ចូលទិន្នន័យ
- ✗ បោះពុម្ពឯកសារ

⋮ ✓ 2. Multiple Choice 10 seconds ▾ 1 point ▾ AI 📄 🗺️ 🎧 🛡️ 📁 🧑 Edit 🗑️

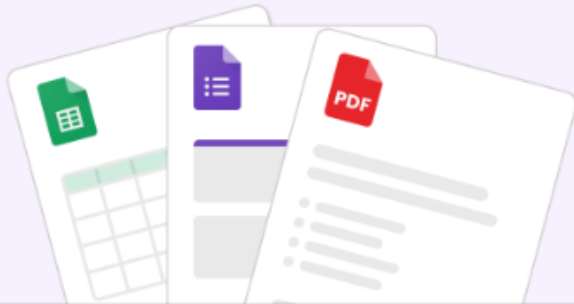
2. តើ Monitor ប្រើសម្រាប់ធ្វើអ្វី?





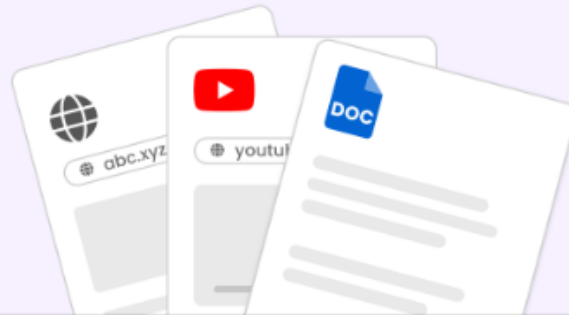
# QUIZIZZ

## Create a new activity



### Import worksheets/questions

from documents, google form, spreadsheet



### Generate with AI

from documents, websites, text



### Create from scratch

from search, question types



### QUIZZZ Actions

Add similar questions >

Add answer explanations >

Translate quiz >

More options >

AI limit 1/10 per month ⓘ

### Bulk update questions

Time ▾

Points ▾

### Import from

Google Forms >

Spreadsheet >

### Search questions from Quizizz Library

Fundamentals of Computer Science

Search questions

10 questions (10 points)

+ Add question

1. Multiple Choice 20 seconds 1 point

AI Edit

What does CPU stand for?

Answer choices

× Central Processing Core

× Centralized Processing Unit

× Computer Processing Unit

✓ Central Processing Unit

2. Multiple Choice 20 seconds 1 point

AI Edit

Which of the following is an input device?

Answer choices

✓ keyboard

× monitor

× printer

× scanner

3. Multiple Choice 20 seconds 1 point

AI Edit

What is the primary function of RAM?





Q

+

Home

Library

Analytics

Profile

Heart

Share

Help

Lock

Search in Quizizz library

Get help

**Fundamentals of Computer Science**  
Assessment • Developer Tom • Computers • 12th Grade

Edit

Save

Share

Worksheet

More

Preview

Assign

Start now

Student Preview

10 QUESTIONS

Show answer options ☐

1. MULTIPLE CHOICE20 sec • 1 pt

What does CPU stand for?

2. MULTIPLE CHOICE20 sec • 1 pt

Which of the following is an input device?

3. MULTIPLE CHOICE20 sec • 1 pt

What is the primary function of RAM?

4. MULTIPLE CHOICE20 sec • 1 pt

Which operating system is known for its open-source nature?



Quizizz

https://quizizz.com/admin/activity/classic/67da780481796b66b5671de4

Themes

End

1

Join using any device

join my quiz.com

2

Enter the join code

521658

Share Via

Auto start your quiz

START

Waiting for participants...





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join my quiz.com • 521658

0 participants



 Auto start your quiz

START



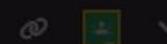


1 Join using  
any device

join my quiz.com



Share Via



2 Enter the  
join code

Share a link



<https://quizizz.com/join?gc=778837>

 Copy Link

⌚ Auto Or share via,



Classroom



Teams



Canvas



Schoology



Twitter



Remind



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# Introduction to Notion for note taking and more





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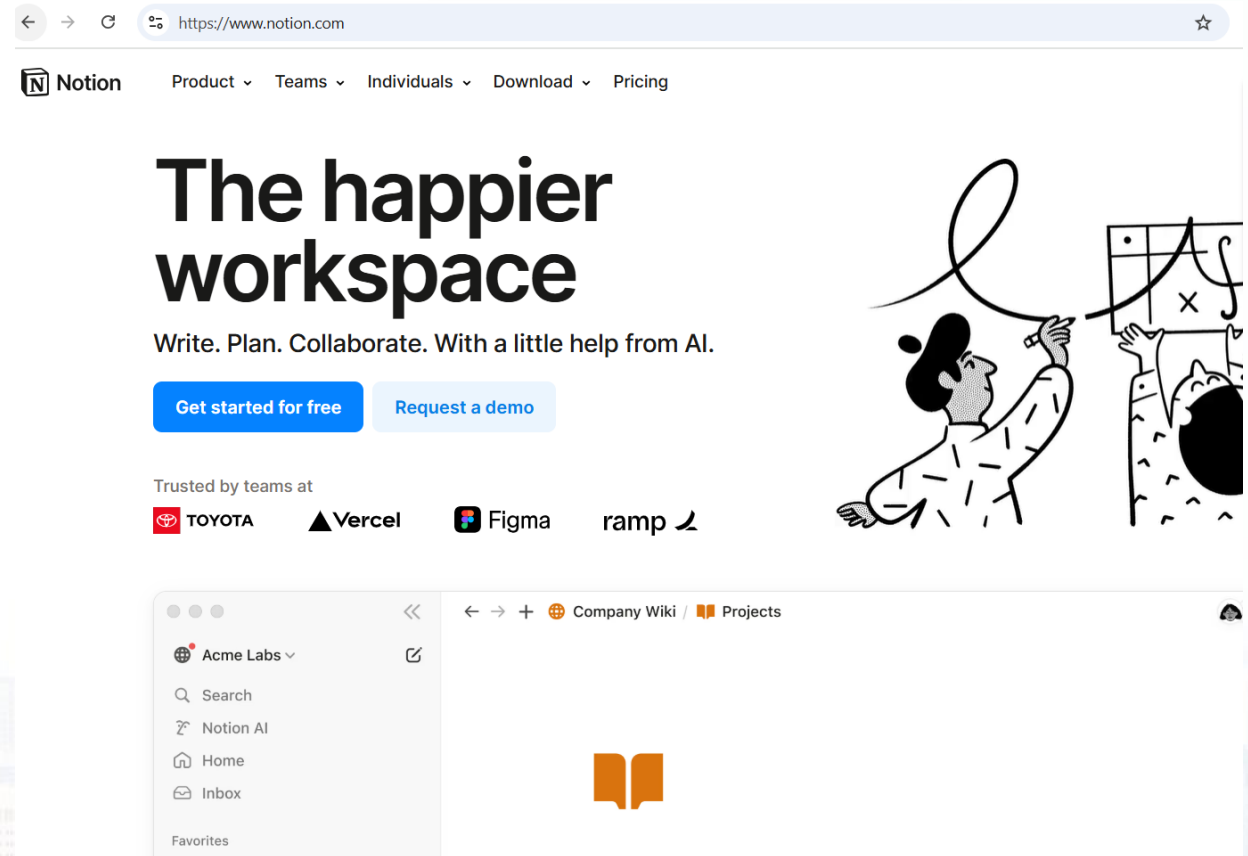
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# NOTION

<https://www.notion.com/>

☐ **Notion** is an all-in-one workspace that combines note-taking, project management, database creation, and collaboration tools into a single platform.

☐ It is widely used for personal organization, team collaboration, and business productivity.





# NOTION: HOW TO USE

1. **Sign Up & Set Up**
2. **Create a Workspace** – Organize your work into pages and sub-pages for different projects.
3. **Use Blocks** – Notion's content is built with "blocks" (text, images, tables, code, etc.), making customization easy.
4. **Set Up Databases** – Utilize Notion's database features to track information in various formats.
5. **Collaborate & Share** – Invite team members, assign tasks, and manage permissions.





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# NOTION

← → ↺ <https://www.notion.so/Student-Planner-1b562c035d4580f3b58bf9612bec2e6a> ☆ PDF ↗ 📷 🎧 🔒

D Developer ... ▾



🌱 Student Planner

🔒 Private ▾

🔍 Search

🧠 Notion AI

🏠 Home

📁 Inbox

Private

🌱 Student Planner

🖋️ Class Notes

+ Add new

⚙️ Settings

📄 Templates

🗑️ Trash

👤 Invite members

📅 18 📧



## Student Planner

🗒️ 2024 Fall 🗒️ All courses

### Courses



📖 Calculus I

2024 Fall

Evergreen Hall



📖 Creative Writing

2024 Fall

Franklin Conference Room



📖 Intro to Computer Science

2024 Fall

Curie Lab

+ New page





# NOTION

← → ↻ 🔍 https://www.notion.so/1b562c035d458021b839ec07f20f465b?v=1b562c035d4581ecba61000c8eb1a2b8 🔍 ☆ PDF ↗ 📷 🎧 🛡️ 📁 | ⬇

D Developer ... ▾ ✎

🔍 Search

🧠 Notion AI

🏠 Home

📁 Inbox

Private

🍷 Student Planner

✎ Class Notes

+ Add new

⚙ Settings

📄 Templates

📁

✎ Class Notes 🔒 Private ▾ Share

✎ Class Notes

Sorted by date ▾

☰ ⬆ ⬆ ⚡ 🔍 ... New ▾

📁 Calculus: Lecture 3

MAT 201

March 13, 2025

📁 CS104: Lecture 5

CSCI 104

March 13, 2025

🇬🇧 British Literature: Lecture 3

LIT 455

March 13, 2025

🌱 Intro to Cell Biology: Lecture 2

BIO 10

March 13, 2025

🎨 UX Design: Lecture 6 ✎

DESIGN 101

March 13, 2025

+ New page







NOTION



# TASK MANAGEMENT

## Task Management Kanban

→ Status   ↑ Priority   📁 Categories   📅 Calendar

● To-Do

☰ Graphic Design Trends 2026

High 🔥

Personal

February 28, 2025

👤 Mr.Pugo

☰ New Free Notion Templates to help more people

Low 📉

Work

● In Progress

☰ Design social media graphics

Medium 🕒

Learning

June 20, 2025

👤 Mr.Pugo

☰ Record and edit promotional video

High 🔥

Other

● Done

☰ New Free Notion Templates to help more people

Low 📉

Work

May 15, 2025

👤 Mr.Pugo

+ New item



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# Introduction to Fastone capture tool for screen recording





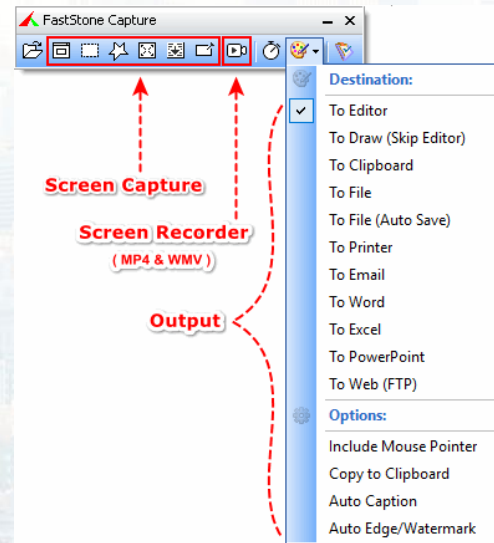
# FASTONE CAPTURE TOOL

**FastStone Capture** is a lightweight yet powerful screen capture and screen recording software for Windows.

□ It is widely used for capturing screenshots, recording screen activities, and editing images with built-in annotation tools.



**FastStone  
Capture**



# FASTONE CAPTURE TOOL

**Key Features Screen Capture:** Capture full screen, active windows, freehand regions, scrolling windows, and fixed regions.

- **Screen Recording:** Record screen activities with audio (microphone or system sounds) and save them as video files.
- **Editing Tools:** Basic editing features like cropping, resizing, annotation, highlighting, and adding watermarks.
- **Output Options:** Save captured images in multiple formats (JPEG, PNG, BMP, GIF, TIFF, PDF) or copy them to the clipboard.
- **Scrolling Capture:** Capture entire web pages or long documents that require scrolling.
- **Hotkeys & Automation:** Customizable hotkeys for quick access to capture tools.



**FastStone**  
Capture





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# THANK YOU

FOR YOUR  
ATTENTION!

