



# Meme Creation for Formative Assessment

1. Memes: A great learning device hiding in plain sight
2. Antimatter Activities

# Why we made Antimatter Activities

I started Antimatter in 2021 after realizing how much I was learning from the *discussions* in several learning meme communities around the internet: r/physicsmemes on Reddit and @historymemes\_explained on Instagram. I realized that learning memes weren't just a gag — they're social puzzles around which people congregate, and the resulting discussions are rich and valuable.

What came next surprised me: I learned that many teachers around the world already used meme creation with their students for formative assessment. There's even a well of publications about the efficacy of memes in the classroom.

What I also learned is that teachers were sending their kids all over the internet to run these activities. We built Antimatter to make meme creation activities fun, efficacious, and easy to run with the classroom.

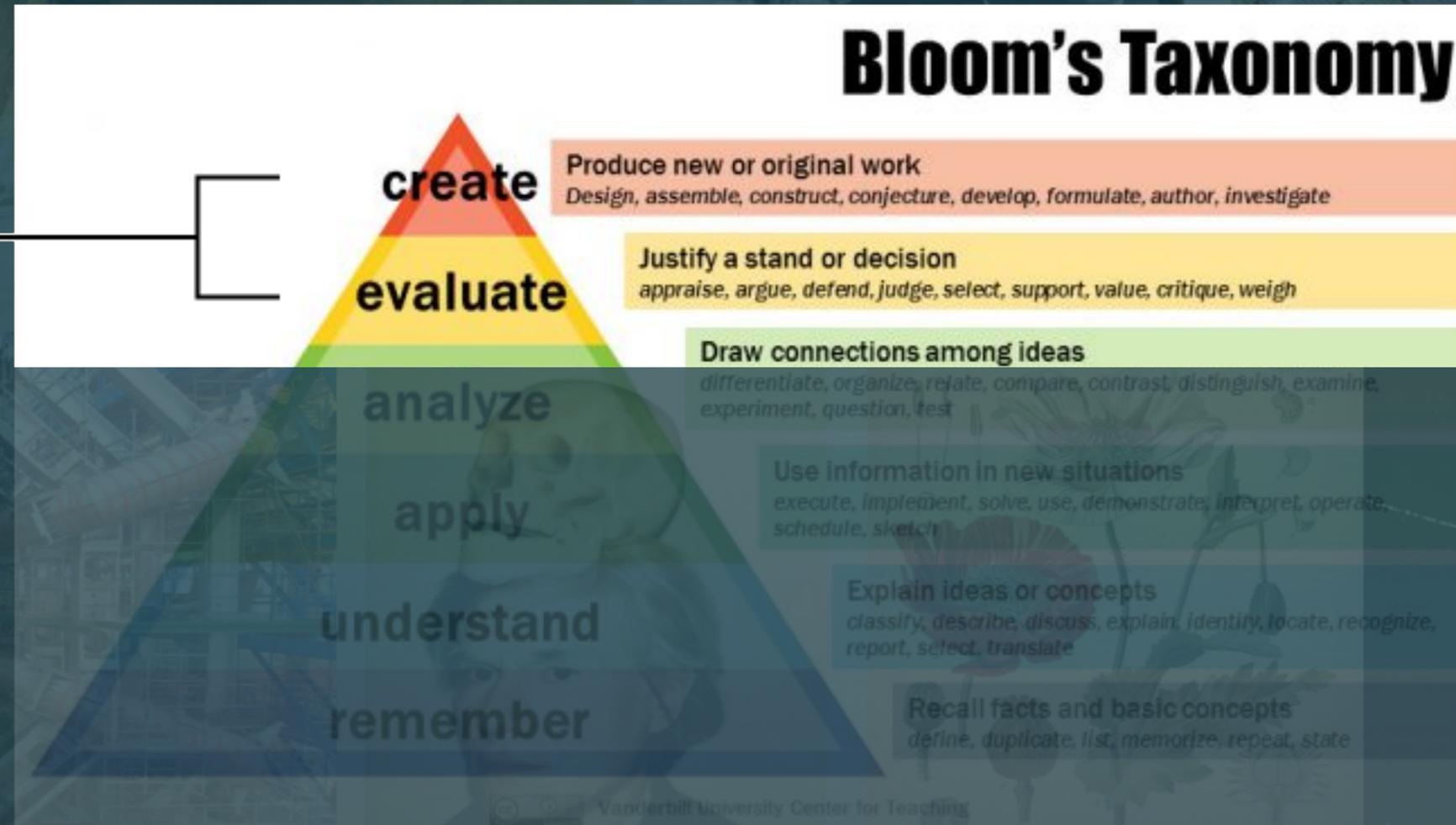


**Jonathan Libov**

Founder & CEO of Antimatter

Mememes aren't gags. They're *short, puzzle-like* stories.

Mememes



You're not only asking each student to tell a novel, puzzle-like story, but also prompting a rich class discussion

# Anatomy of a Meme

## Creativity & Ingenuity

Memes are a language that every learner is fluent in

## Storytelling

Meme templates are prototypes for stories



## Knowledge

The sum of these parts is a puzzle which can only be solved when you understand the subject matter

Memes: A great learning device hiding in plain sight

# The three types of learning memes

## Camaraderie

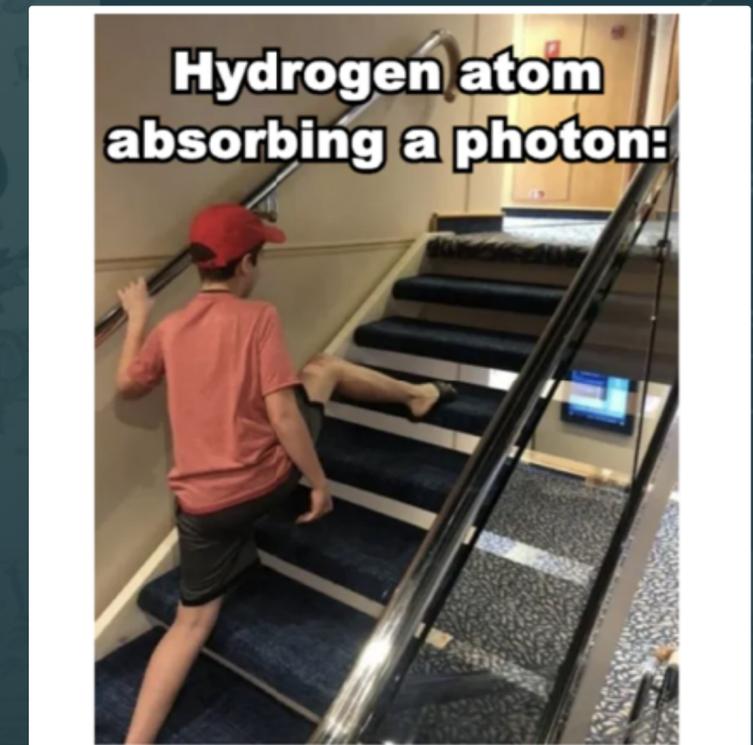
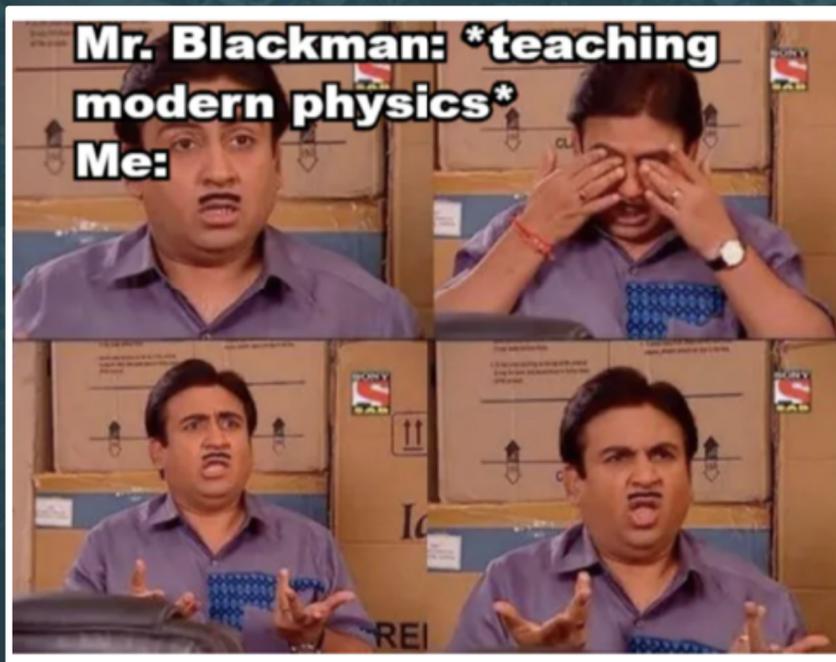
Fostering camaraderie among students enhances engagement and participation

## Knowledge/terms

Memes are memorable, making them ideal for test review and building foundational knowledge

## Storytelling

Memes possess a magnetic storytelling capacity that captivates students' attention and interest.



Memes: A great learning device hiding in plain sight

# Teachers use Antimatter activities for almost anything taught in the classroom

Camaraderie

Knowledge/terms

Storytelling



**Cell Phones in the Classroom: Distraction or Tool?**

Run by [kswickard](#) using [Heatmap](#)

Topic: Cell Phones in the Classroom...

INSTRUCTIONS: Create a meme that represents your view on the use of cell phones in the classroom. Your meme should be puzzle-like and require the person who is reading it to...

The screenshot shows a grid of four meme options. The top-left meme features a beetle with a smartphone on its back, with the text 'When you get caught with your phone out'. The top-right meme shows a person shouting with the text 'When you watching orange and back you're in class and the screen goes blue and you see the teacher behind you in their lecture'. The bottom-left meme shows a dinosaur with a smartphone, with the text 'Now when your teacher asks you about your phone...'. The bottom-right meme shows a cartoon character with a speech bubble saying 'Kinda coming for me because my phone out'.

**Pre-AP Final Review**

Run by [mmccourt](#) using [Heatmap](#)

Topic: Pre-AP Final Review

INSTRUCTIONS: Create a meme on a topic of your choice from our class.

Set up this activity with your classroom

The screenshot shows a grid of four meme options. The top-left meme features a golfer with the text 'Constantly being instructed to walk for production'. The top-right meme features a man in a red jacket with the text 'Chad madsen coronating himself'. The bottom-left meme features a golfer with the text 'The 1900s people breaking right is'. The bottom-right meme features a man holding a sign that says 'Mansa Musa after causing inflation'.

**Biology S1**

Run by [Melvanna](#) using [Heatmap](#)

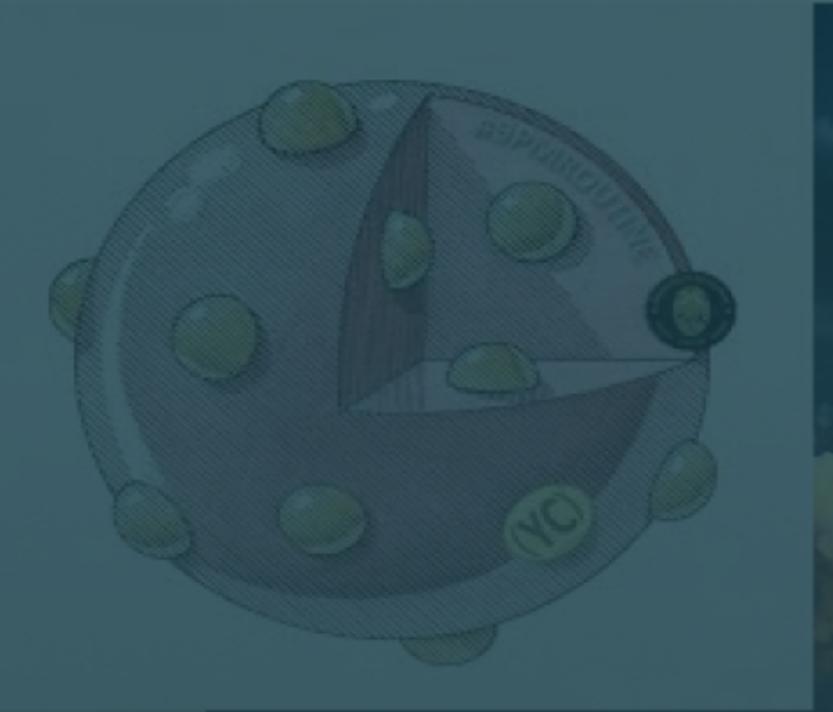
Topic: Biology S1

INSTRUCTIONS: —

Set up this activity with your classroom

The screenshot shows a grid of four meme options. The top-left meme features a person with the text 'A cell gets it's energy from the sun so it's not designed to be designed'. The top-right meme features a person with the text 'I would do anything for love'. The bottom-left meme features a person with the text 'The girl trying to score me with her new "Wednesday" personality'. The bottom-right meme features a person with the text 'Chromosomes drawn in diagrams' and 'Chromosomes through a microscope'.

Memes: A great learning device hiding in plain sight



# Antimatter Activities

# Antimatter Activities

Three unique activities for every class size and subject matter

The screenshot shows a web browser window with the URL `antimatter.systems/dashboard`. The user is logged in as `libovness`. The dashboard features a sidebar with navigation options: Dashboard, Discover, Activities, Sorcerer, Make a Meme, and Library. The main content area is titled "Get started by preparing an activity" and displays three activity cards:

- Meme Quiz**: Students quiz each other on the memes they made. [Setup activity >](#)
- Heatmap**: Create memes from a single prompt on a shared canvas. [Setup activity >](#)
- New Phone Who Dis**: Create a text thread between two characters or ideas. [Setup activity >](#)

# Heatmap

Create memes on a grid. Students can navigate the grid to “bless”, or upvote, each other’s work

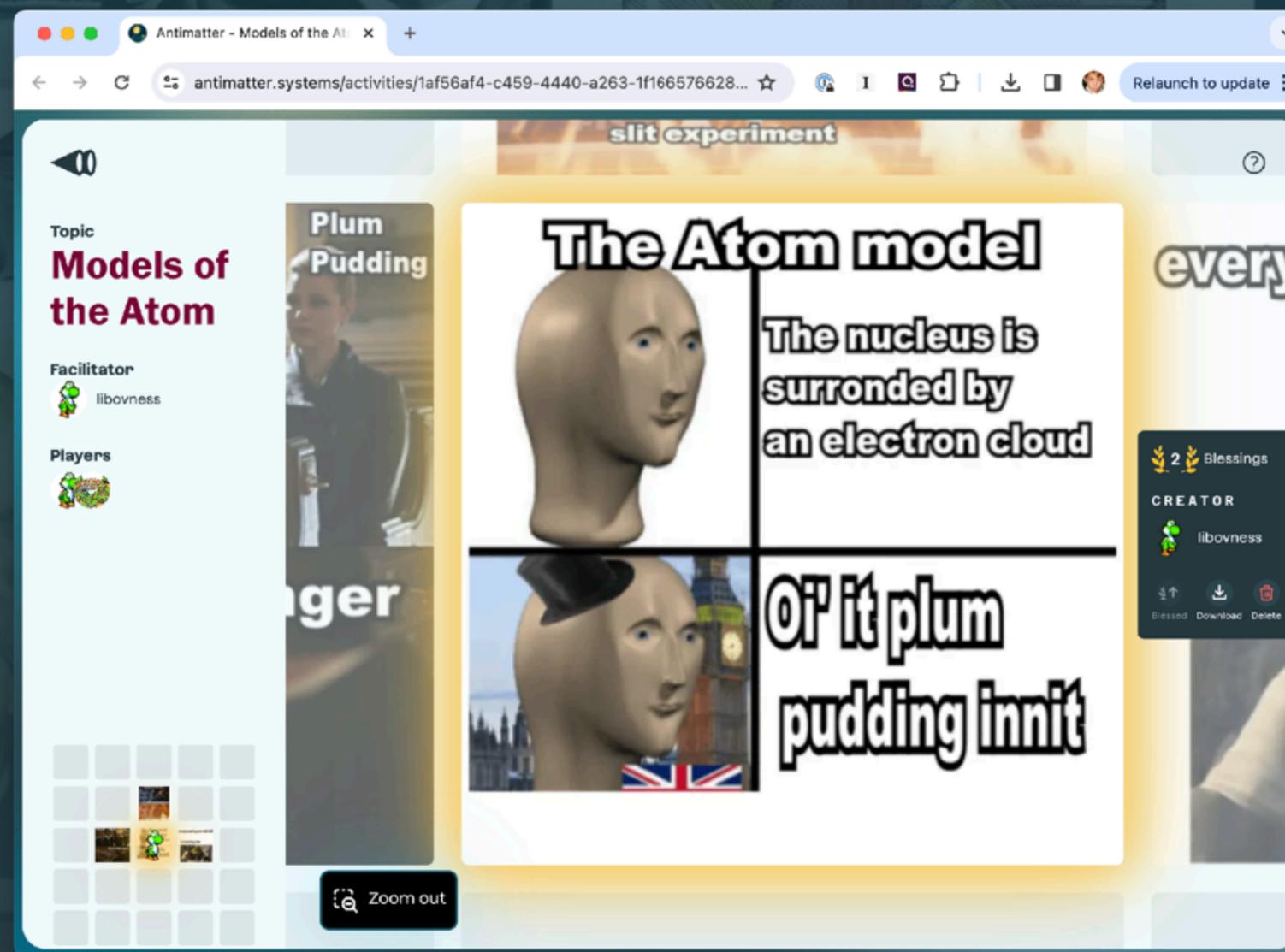
## Why students love it

Not only is it a blast to walk around the map discovering new memes, it inspires students to celebrate their classmates’ work and tell new, original stories through memes.

## Why teachers love it

As easy as can be to set up — just enter a topic and invite your students.

Great for when you’re wrapping up a unit and want to challenge and engage your students.



# Heatmap



## Setup

Select a topic and number of participants.



## Lobby

Share the invite link. Your students wait in the lobby until you start the activity.



## Play

Your students create on the Heatmap while you facilitate and moderate the activity.



## Review

Browse through your students creations while your students discuss, analyze and enjoy each other's work.

The screenshot shows a web browser window with the URL `antimatter.systems/activities/1af56af4-c459-4440-a263-1f166576628...`. The page title is "antimatter". The main content area displays a heatmap activity for the topic "Models of the Atom", which is the 1st of 4 activities. It shows 7 Blessings. The heatmap contains two entries:

Entry	Content
1	<b>The Atom model</b>  The nucleus is surrounded by an electron cloud
2	<b>Of it plum pudding inni</b> 

The heatmap is decorated with a laurel wreath. The user "libovness" is credited at the bottom of the heatmap.

# Heatmap

## Great for:

- Class Meme Collage
- Meme competition
- End-of-unit review

The screenshot shows a web browser window with the URL `antimatter.systems/activities/1af56af4-c459-4440-a263-1f166576628...`. The page content includes:

- Antimatter logo
- Topic: **Models of the Atom**
- Progress: 1 of 4
- Activity title: **7 Blessings**
- A central meme image titled "The Atom model" with two panels:
  - Top panel: A mannequin head with the text "The nucleus is surrounded by an electron cloud".
  - Bottom panel: A mannequin head with the text "Of it plum pudding inni".
- Attribution: libovness

# Meme Quiz

*Create a meme from a prompt. Each meme becomes a multiple-choice style quiz question.*

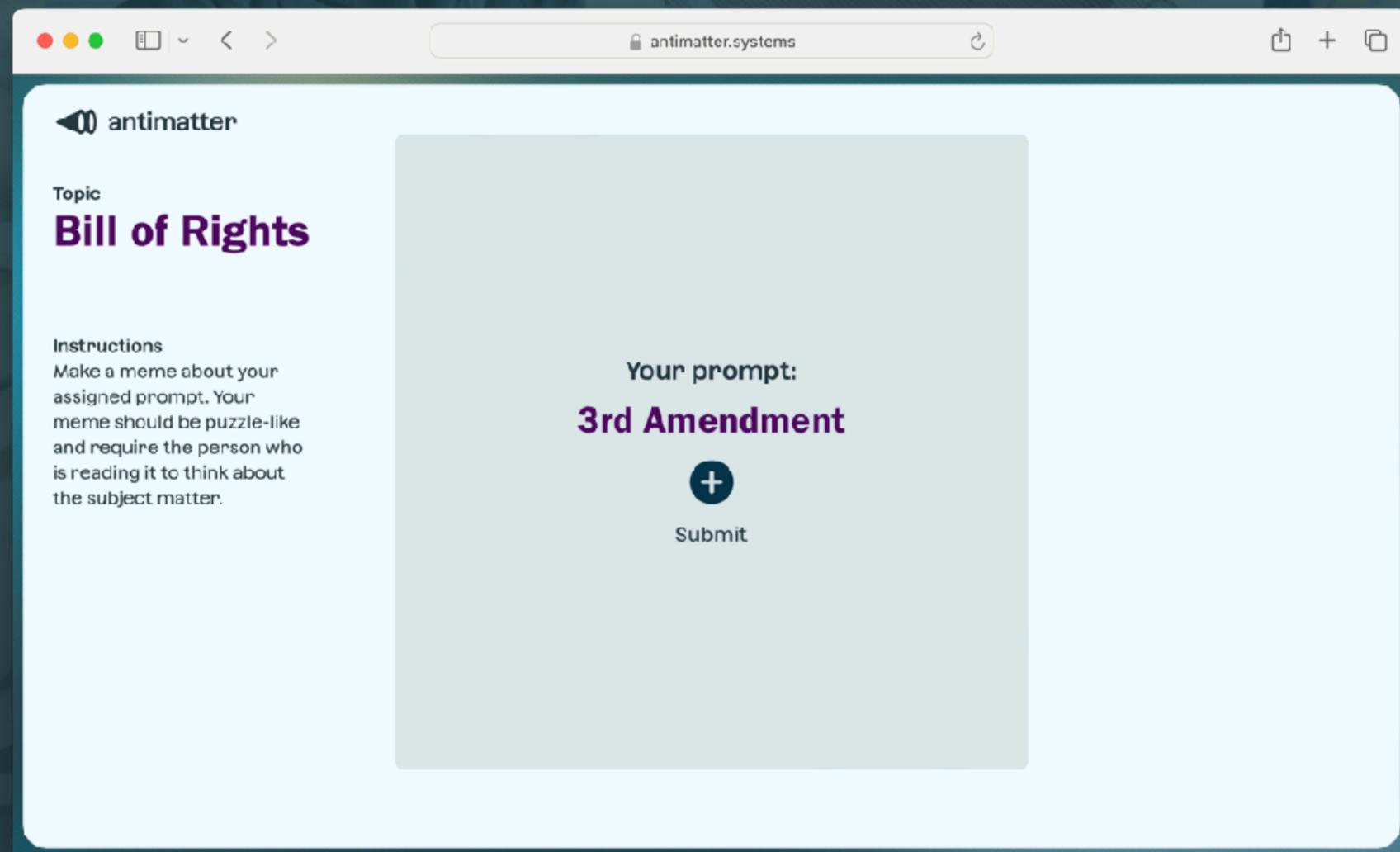
## Why students love it

Students are invited to create a uniquely puzzling meme that will make their classmates think deeply about the subject matter (and of course laugh about it!).

The quiz at the end is a blast.

## Why teachers love it

The variety of prompts you give your students enables you to cover several sub-topics, along with a fun quiz to leave your students with.



# Meme Quiz



## Setup

Select a topic and several prompts.



## Lobby

Assign students to prompts. Your students wait in the lobby until you start the activity.



## Play

Your students create one or more memes about their assigned prompt.



## Quiz

Do the multiple-choice quiz as a class, or have students do the quiz individually.

The screenshot shows a web browser window with the URL `antimatter.systems`. The page displays a quiz titled "1 of 1" on the topic "Bill of Rights". A meme is shown with a cartoon character and the text: "Officers realizing they cant search you for unreasonable things." Below the meme, it says "You got it right!" and "3rd Amendment" by user "libovness2". On the right, a multiple-choice question asks "Which prompt describes this meme?" with three options: "A 1st Amendment", "B 2nd Amendment", and "C 3rd Amendment". Option C is selected. A "Submit" button is below the options, and a "Finish" button with a right arrow is at the bottom right.

# Meme Quiz

## Great for:

- Name the US President
- Which periodical element am I?
- Current events as memes

antimatter

1 of 1

Topic  
**Bill of Rights**

You got it right!  
**3rd Amendment**

libovness2

Which prompt describes this meme?

A 1st Amendment

B 2nd Amendment

C 3rd Amendment

Submit

Finish →

# New Phone Who Dis

*Simulate an iPhone chat between historical figures, fictional characters or ideas.*

## Why students love it

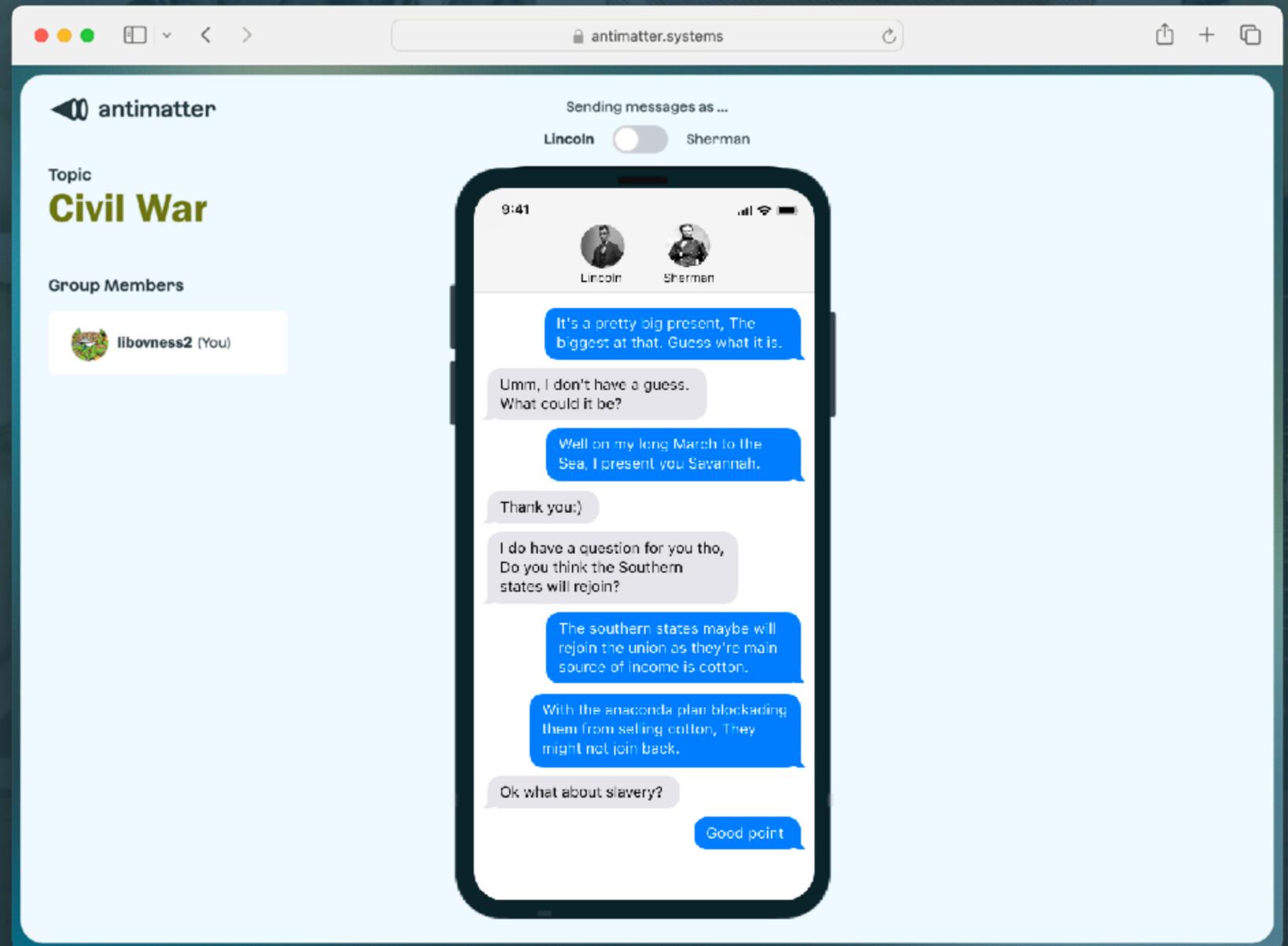
We went all out to make this feel *just* like an iPhone chat, including sounds.

Students love communicating big ideas in the language they use with their friends in chat.

## Why teachers love it

Inviting students to play a role really challenges them to grapple with the subject matter.

Student creations are always outrageously creative and insightful.



# New Phone Who Dis

## Setup

Select the two participants in the chat.

## Lobby

Assign students to a participant. Your students wait in the lobby until you start the activity.

## Play

Your students chat with their counterparts.

## Review

Browse through your students' creations as everyone enjoys all the unique insightful perspectives and juxtaposition.

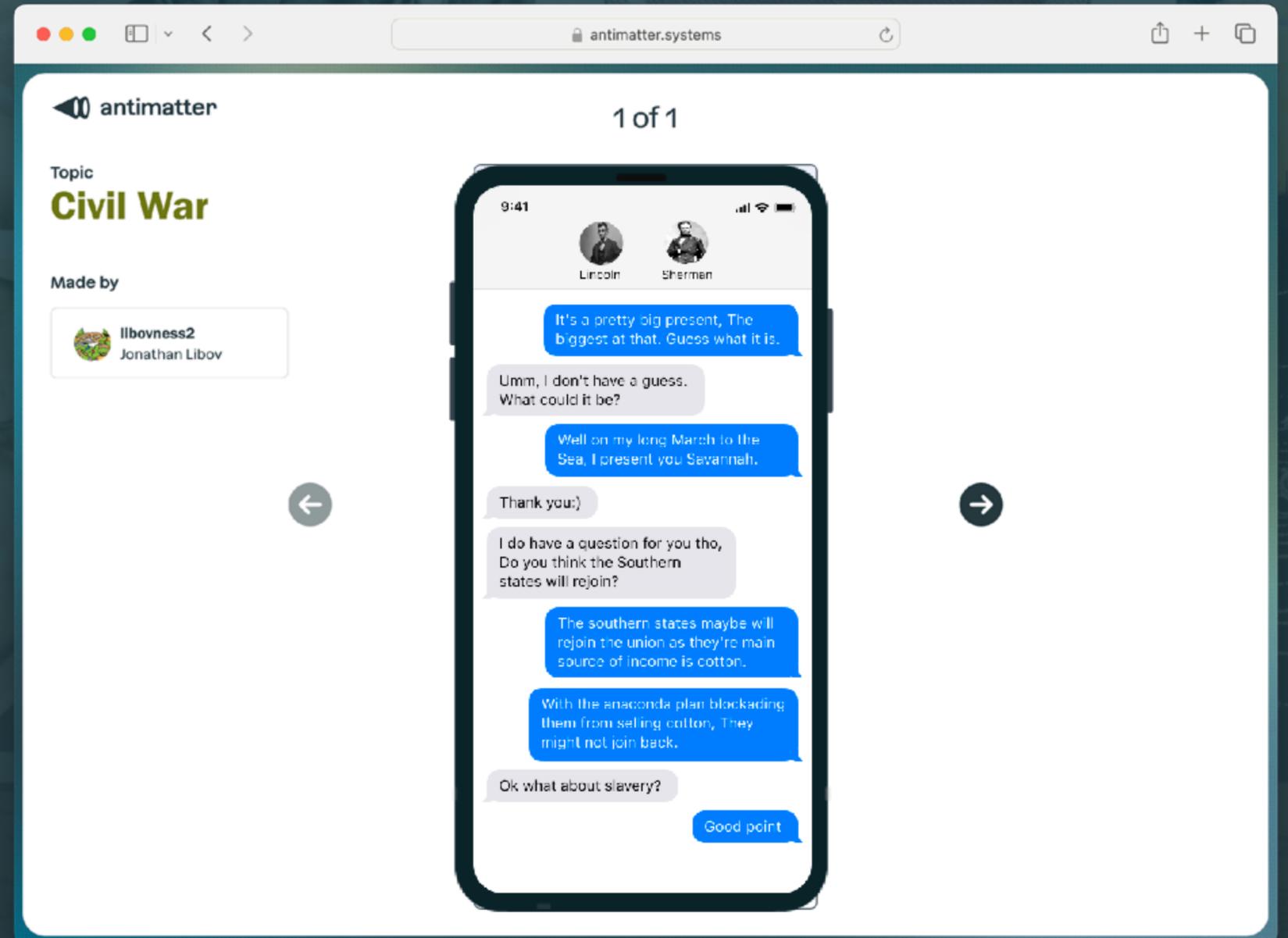
The screenshot displays the Antimatter app interface. At the top, the browser address bar shows "antimatter.systems". The app header includes the "antimatter" logo and "1 of 1" indicating the current chat instance. The topic is "Civil War" and it was created by "llbovness2 Jonathan Libov". The chat is between two participants, Lincoln and Sherman. The conversation is as follows:

- Lincoln: "It's a pretty big present, The biggest at that. Guess what it is."
- Sherman: "Umm, I don't have a guess. What could it be?"
- Lincoln: "Well on my long March to the Sea, I present you Savannah."
- Sherman: "Thank you:)"
- Sherman: "I do have a question for you tho, Do you think the Southern states will rejoin?"
- Lincoln: "The southern states maybe will rejoin the union as they're main source of income is cotton."
- Lincoln: "With the anaconda plan blockading them from selling cotton, They might not join back."
- Sherman: "Ok what about slavery?"
- Lincoln: "Good point"

# New Phone Who Dis

## Great for:

- Chat between literary characters
- DM thread between positive and negative numbers
- Debate between famous scientists
- Reenact a historical event as a text thread



# After the activity is done, you get a shareable link

The image displays three overlapping browser windows from the Antimatter platform, each showing a different activity page. The top window shows the 'Particle Zoo' activity, created by mariajones, with a URL ending in '40e31902-cbdd-4a0f-890f-4727627dffa8'. The middle window shows the 'SS8H1 bc Creation of the Carolina Colony' activity, created by ChristieCloud using a Meme Quiz, with a URL ending in '67870ae0-7f53-4100-9f27-d04ce2c6919d?content=f869769f-90...'. The bottom window shows the 'Roman Achievements: Period 6' activity, created by papafrancisco using a Heatmap, with a URL ending in '33e88155-0073-4b85-bf2d-ff987fe4b20a?content=eee204c8-879e-4...'. Each window includes a sidebar with navigation options like Dashboard, Discover, Activities, and Sorcerer, and a main content area with activity details and instructions. The bottom window also features a grid of meme examples related to the activity topic.



# More about Antimatter Activities

# Facilitate the activity & discussion with ease

A full suite of moderation tools and convenient facilitation tools

The screenshot shows the Antimatter Discover web interface. The browser address bar displays 'antimatter.systems/discover'. The interface includes a navigation sidebar on the left with icons for Dashboard, Discover, Activities, and Sorcerer. The main content area shows a topic '13 colonies' with instructions and a 'Copy invite Link' button. A 'Submission Moderation' table is open, displaying a list of student submissions with columns for Status, User Name, Prompt, and Submit. A 'Start Review' button is visible at the bottom of the interface.

Status	User Name	Prompt	Submit
MAX	RichieMontana RichardMontana	New York	1/3
MAX	liberness Janet van Loo	New York	2/3
MAX	camcarr Cameron Moreno	New York	3/3
OMIT	foodbeast Ben Richardson	New Jersey	1/2
SUBMIT	victorian Victoria White	New Jersey	2/2
SUBMIT	wallerwhite Max Jones	New Hampshire	1/1
SUBMIT	novoso eric Novoso	New Hampshire	1/1
SUBMIT	thunderbox Miles Daniels	New Hampshire	1/1
READY	NatalieArt Natalie Schwartz	Massachusetts	-/1
READY	sweetpea Jamie Appell	Massachusetts	-/1
READY	BentoBox Mike Tan Benita	Massachusetts	-/1
READY	Elsa Molly Mendel	Delaware	-/1
READY	Stamen Matt Blackmar	Delaware	-/1
WAITING	BlackDaw Eric Hastings	Delaware	-

# The best memes get celebrated

Students love this

The screenshot shows the Antimatter Discover website interface. At the top, it says "Memes of the Week" for "JANUARY 2ND 2024". Below this, there are four meme cards, each with a "Heatmap" button and a topic label: "Absolutism", "Absolutism", "Semester 1 Topics", and "Astronomy Part 2 Exam Topics". A "Discover" section below features the text "REAL MEMES CREATED BY REAL STUDENTS AROUND THE WORLD" and a search bar with the placeholder "Go deeper..." and a "Search" button. The left sidebar contains navigation options like Dashboard, Discover, Activities, Sorcerer, Make a Meme, and Library.

The screenshot shows a Gmail email interface. The email title is "Memes of the Week (with a twist!): December, 22, 2023" and it is from Jonathan Libov. The email content features a preview of the Antimatter website's "Memes of the Week" page for December 22, 2023. Below the preview, the text reads: "It's that time of the week, and the last time of the week for 2023. Before we get on to the Memes of the Week, the team at Antimatter wants to".

# See a great activity set up by a fellow teacher?

Remix it!

The screenshot shows the 'Discover' page for an activity titled 'Science Ch11 - Forces and Motion' by user 'libovness'. The page features a sidebar with navigation options: Dashboard, Discover, Activities, and Screenshot. The main content area includes the activity title, a 'Run by' section showing 'HLin13 using Heatmap', and a 'TOPICS' section with 'Science Ch11 - Forces and Moti...'. Below this is an 'INSTRUCTIONS' section which is currently empty. A prominent yellow button at the bottom left says 'Set up this activity with your classroom'. The right side of the page displays a grid of meme examples related to physics, such as 'I fell down the stairs', 'Mom/Dad: What are you laughing at? Me: Nothing. Mind: they don't know what non-contact force means', and 'WHAT GIVES PEOPLE FEELINGS OF POWER' with a bar chart comparing 'being slow', 'being fast', and 'having acceleration'. Each meme has a 'Try on Sorcerer' button.

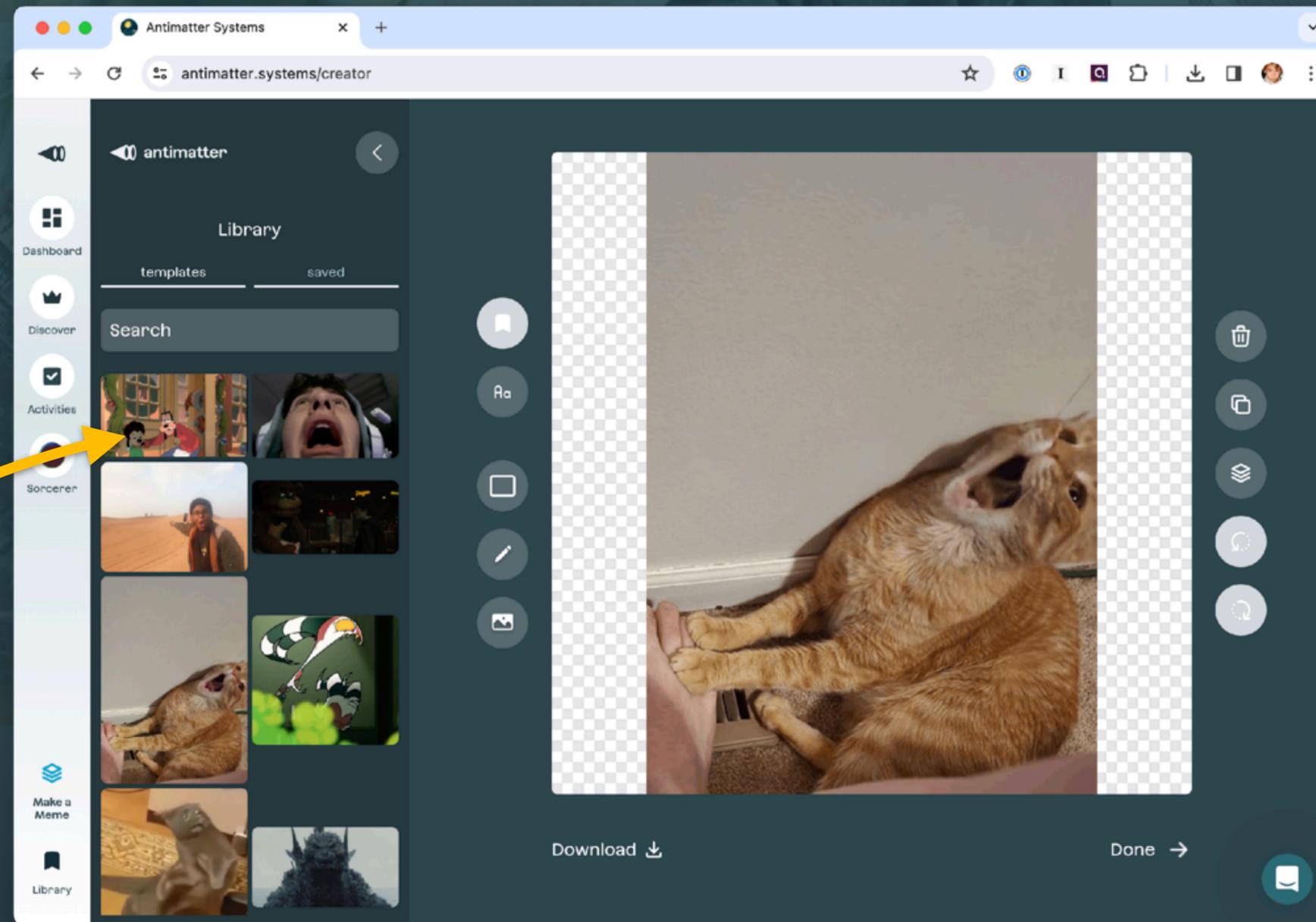
The screenshot shows the 'Setup' page for the 'Heatmap' activity. The page has a progress bar at the top with four stages: Setup (active), Lobby, Play, and Review. The main heading is 'Heatmap', followed by a description: 'A shared canvas for memes, based on a single topic. As memes are upvoted, they glow with heat.' Below this is a list of configuration options:

- 1 TOPICS**
  - Science Ch11 - Forces and Motion Done
- 2 NUMBER OF PARTICIPANTS**
  -
- 3 INSTRUCTIONS**
  - Make a meme about the topic. Your meme should be puzzle-like and require the person who is reading it to think about the subject matter. Try to include a word or phrase that someone can look up if they don't understand the meme at first.

A yellow arrow points from the 'Set up this activity with your classroom' button in the previous screenshot to the 'Science Ch11 - Forces and Motion' option in the 'TOPICS' list. A 'Start' button is located at the bottom right of the page.

# One of the best creation tools you've ever seen

We take this very, very seriously, and the kids can feel it



New (school-appropriate) templates everyday



Antimatter will be free forever for teachers and schools





# How to get involved

Subscribe to our newsletter/[blog](#)

[Schedule a 1:1](#)

Join the [Antimatter Teachers' Lounge](#) on Facebook

# Privacy & Security

We are built on a thoroughly modern technology stack that ensures privacy, security, and ease of deletion when necessary

We don't collect any PII beyond student names that are passed when using Google Auth or other OAuth

We don't share any data with third parties—including AI providers—beyond totally anonymized analytics

Data are encrypted in motion and at rest

We can delete all user data within 72 hours, upon request

View our Terms of Service at <https://antimatter.systems/termsofservice>

View our Privacy Policy at <https://antimatter.systems/privacy>