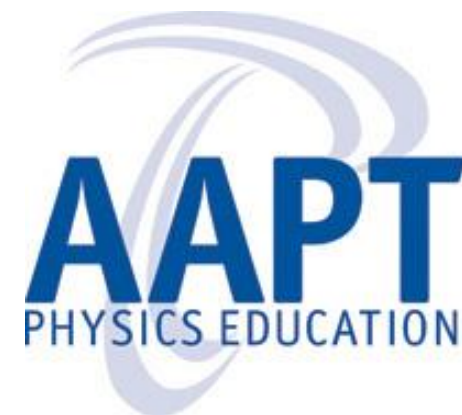


# Spy Themed Science Outreach Catalyst Kit and Sense Based Early Childhood Physics Demos

Naomi Wagner: AGENT SOCK25



# SOCK: Science Outreach Catalyst Kit

## Who

SPS Chapters!

## What

- 100 Demo Boxes
- Write Ups
- Videos

## Why

Physics Outreach

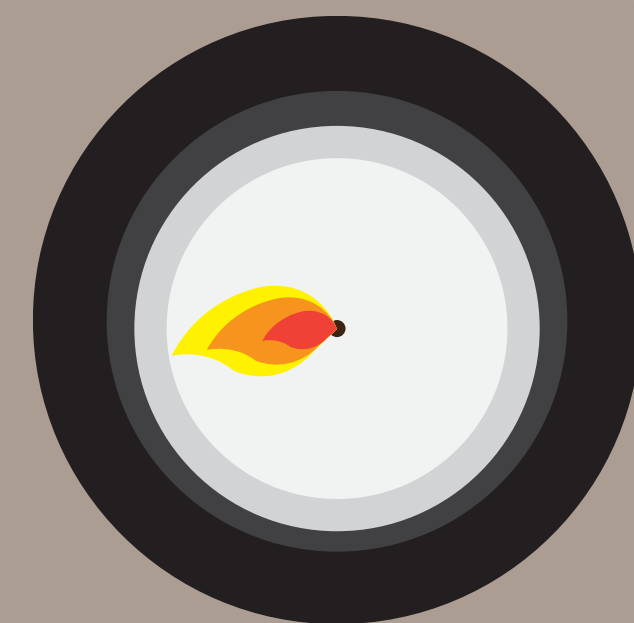
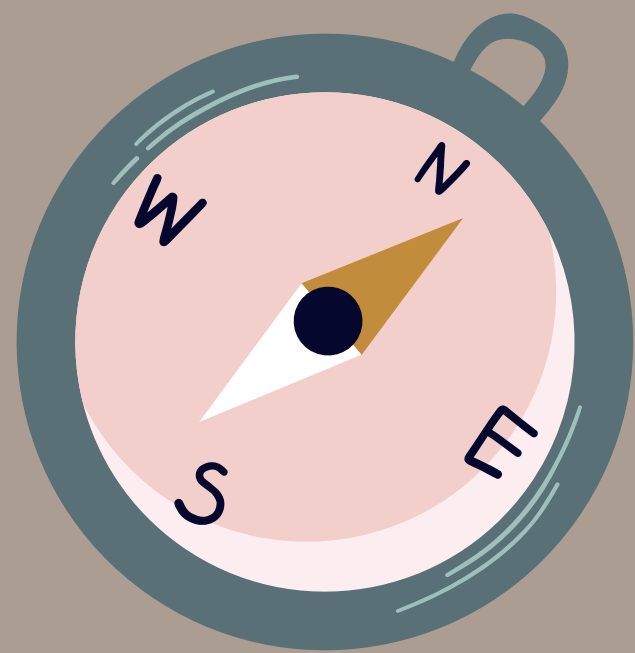
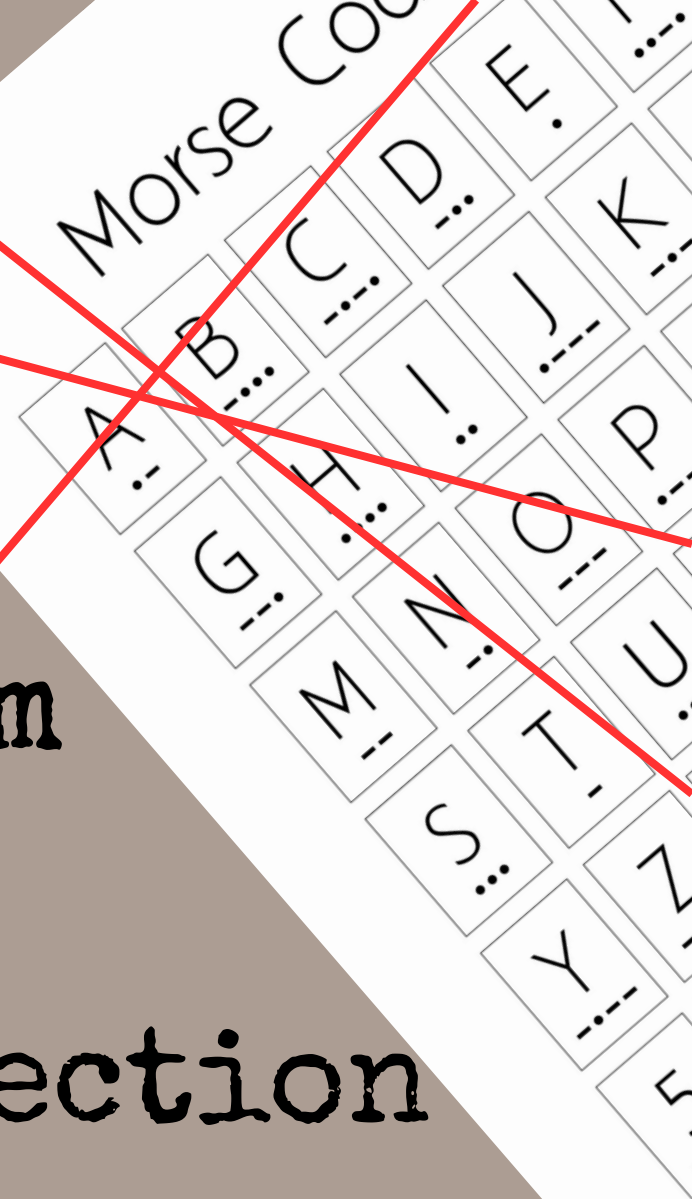




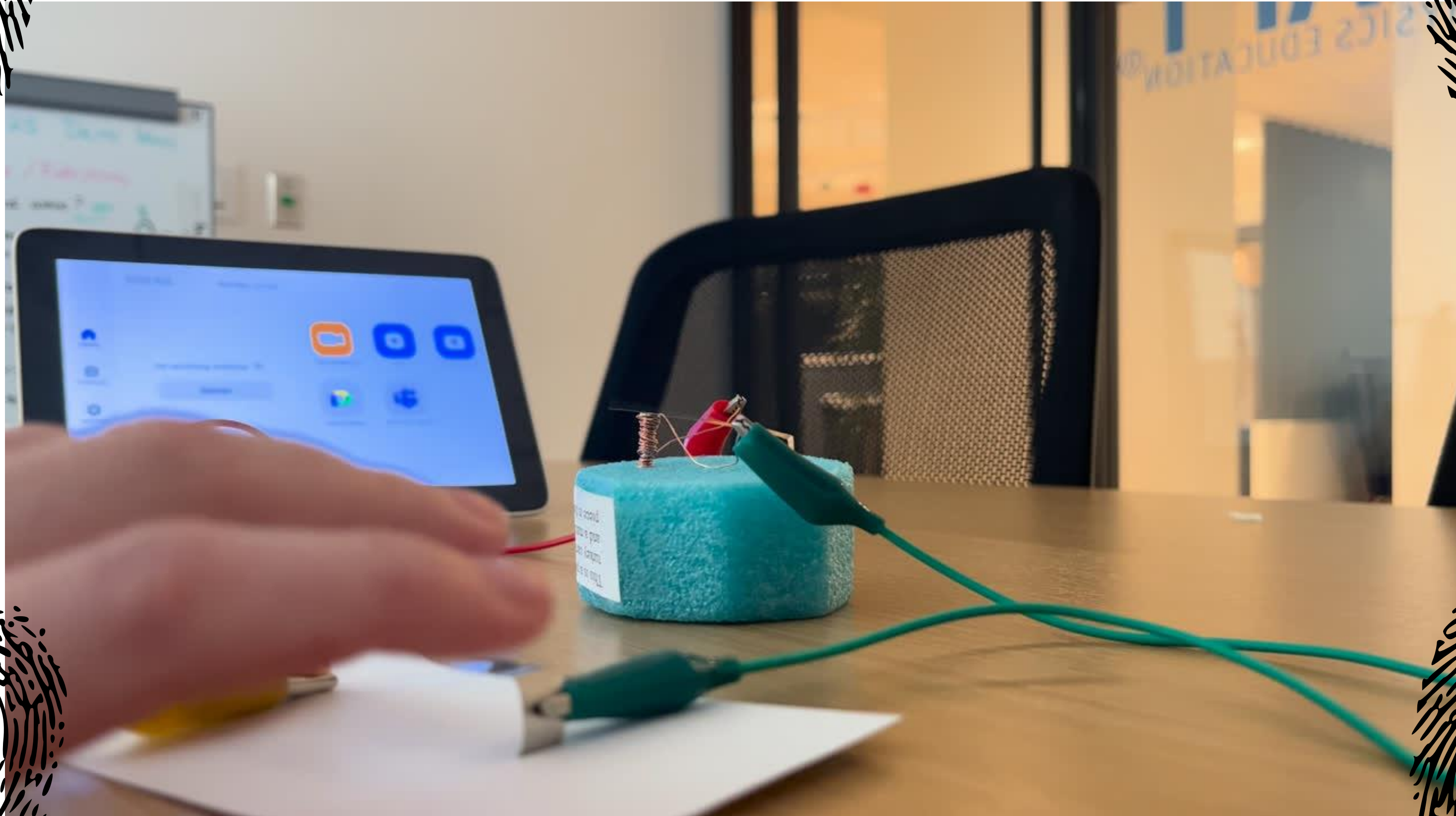
**TOP SECRET**

# Spy SOCK

- Telegraph: Circuits & Electromagnetism
- Invisible Ink: Heat Transfer
- Color Decoder: Light Absorption & Reflection
- Compass: Magnetization & Magnetic Fields
- Laser Reflection: Light Dynamics



# Telegraph





Invisible Ink



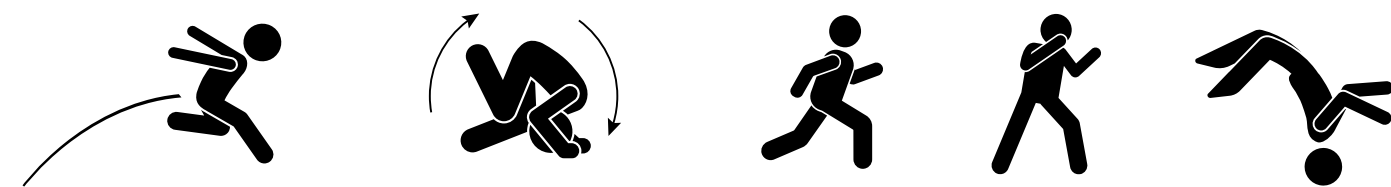
Color Decoder



Compass



Laser Maze





# AAPT Internship

## Who

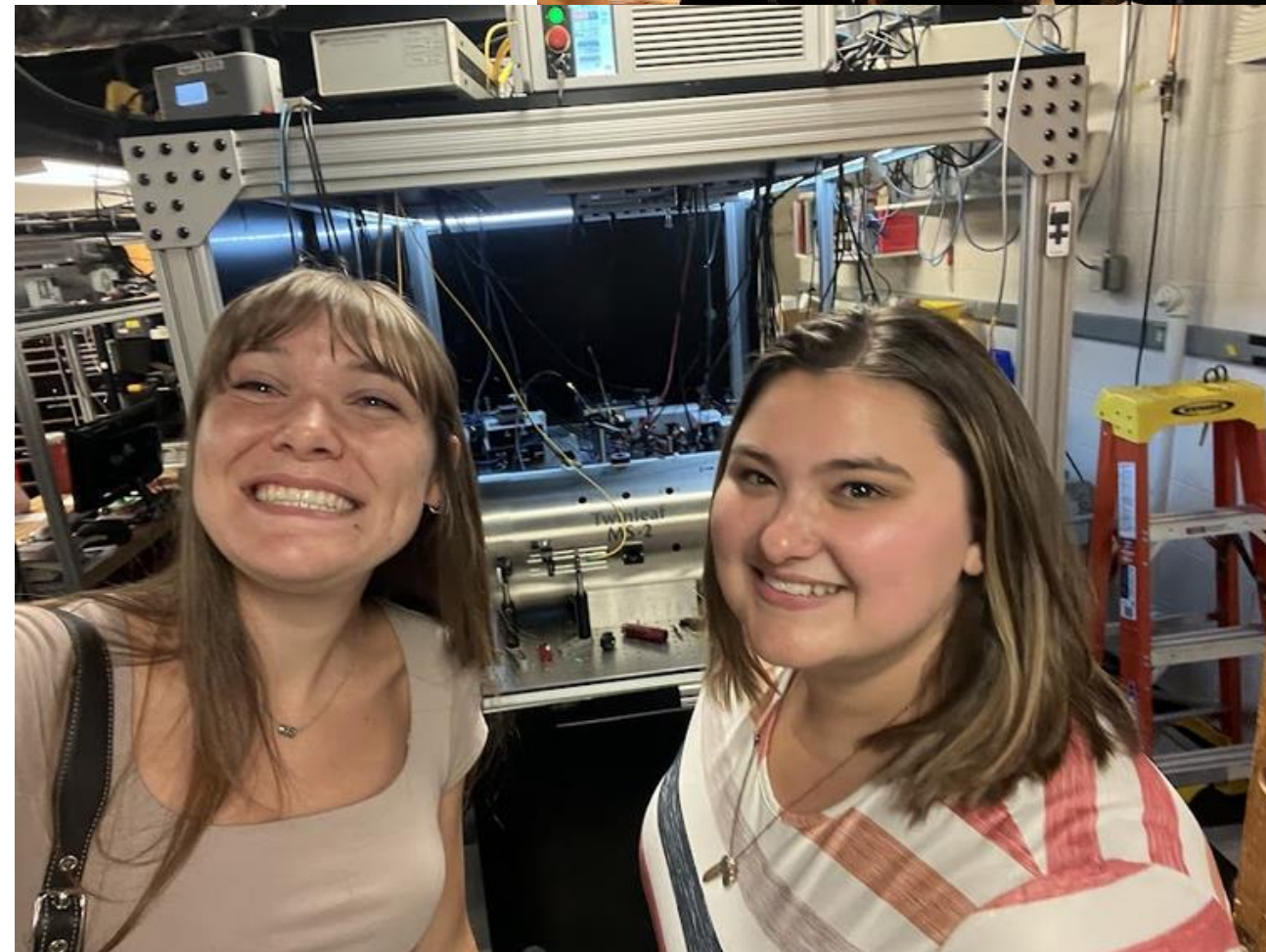
K-12 Physics &  
Science Teachers

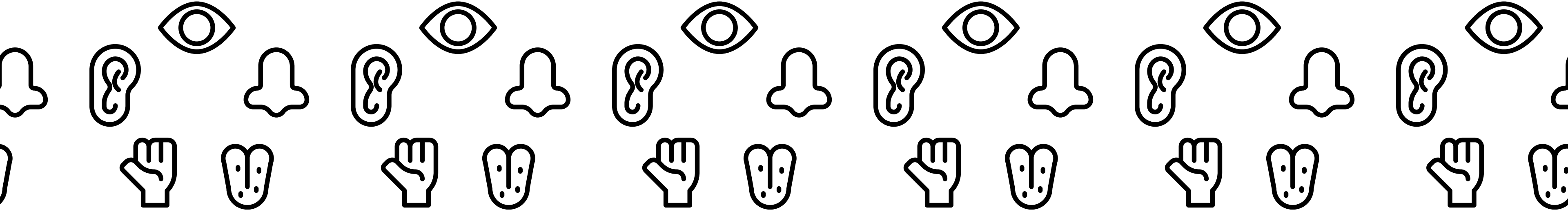
## What

- Sense Based Class Activities
- AAPT Summer Meeting

## Why

Optional Teaching  
Resources





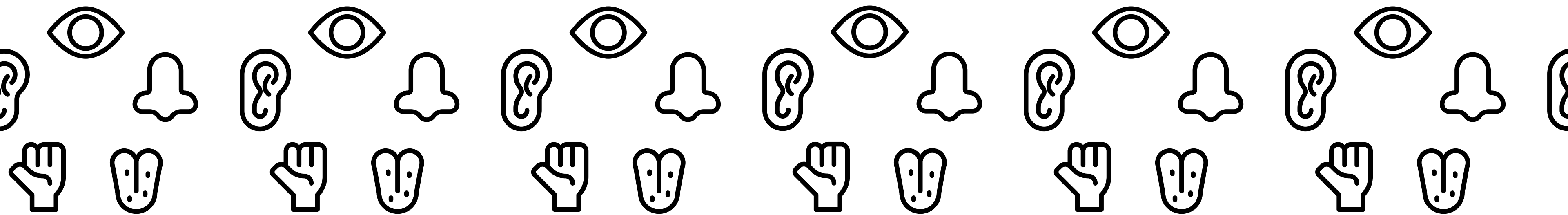
Sight - How Does Light Travel?

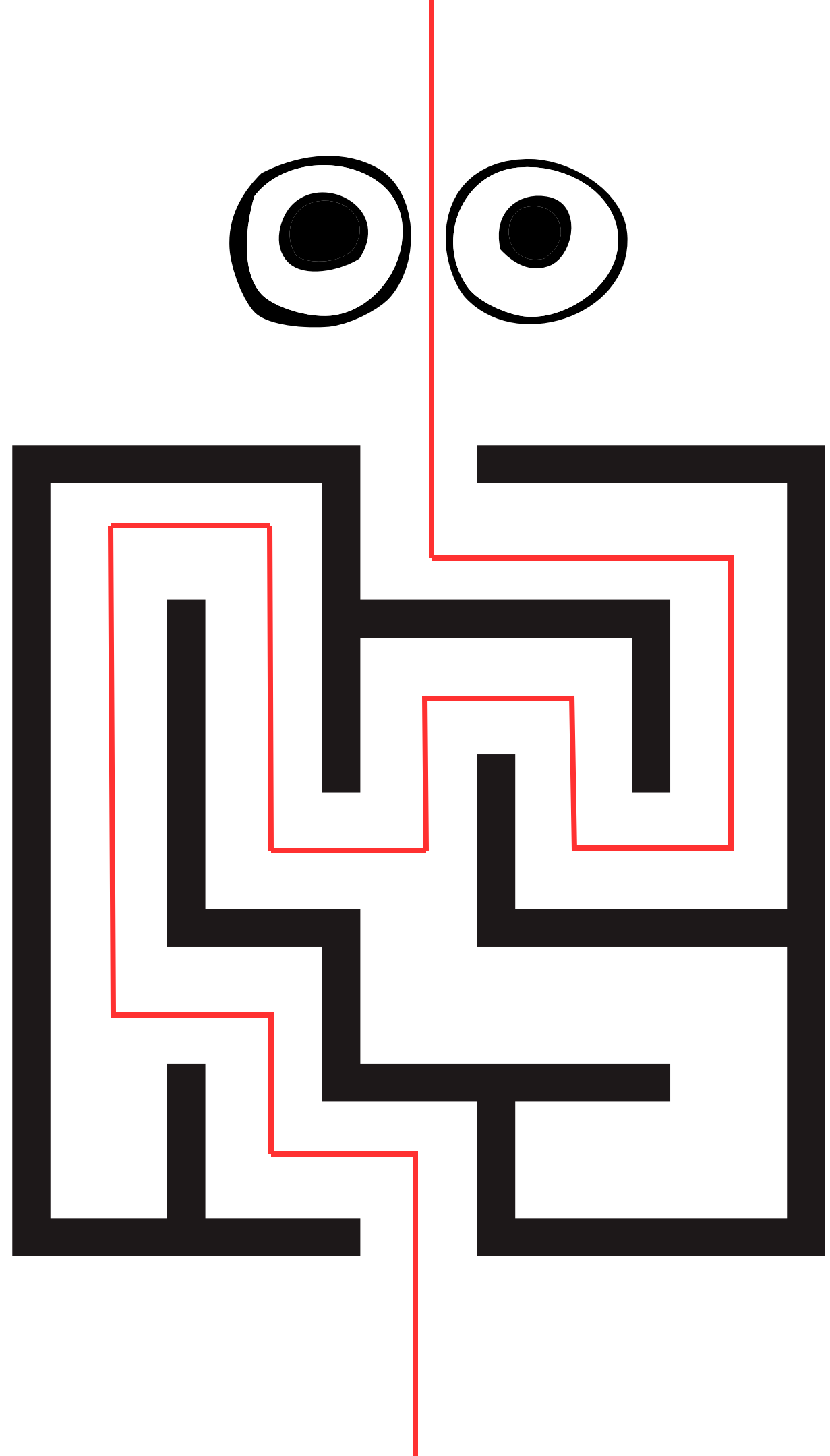
Sound - What Does Sound Look Like?

Smell - How Does Energy Smell?

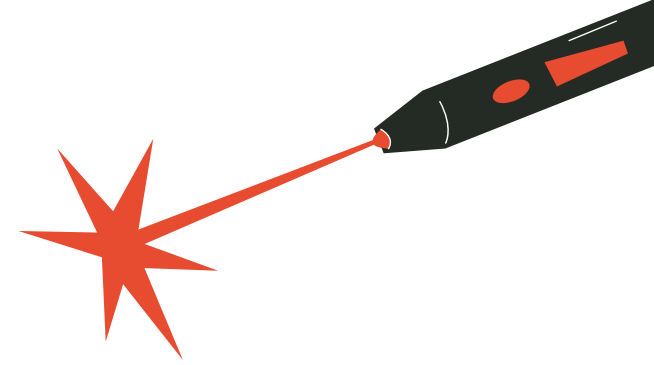
Touch - How Does Friction Feel?

Taste - How Does Matter Taste?





# Sight



K-2: Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.



# Sound

K-2: Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.



# Smell

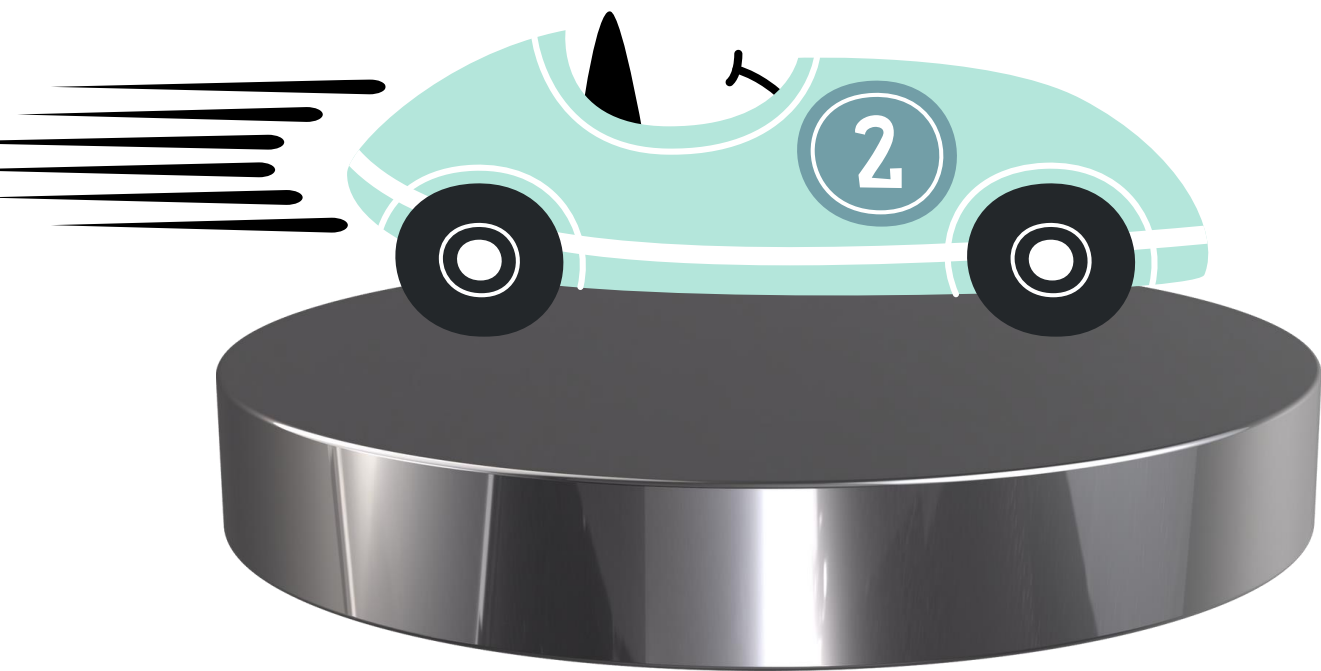
6-8: Develop a model that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.



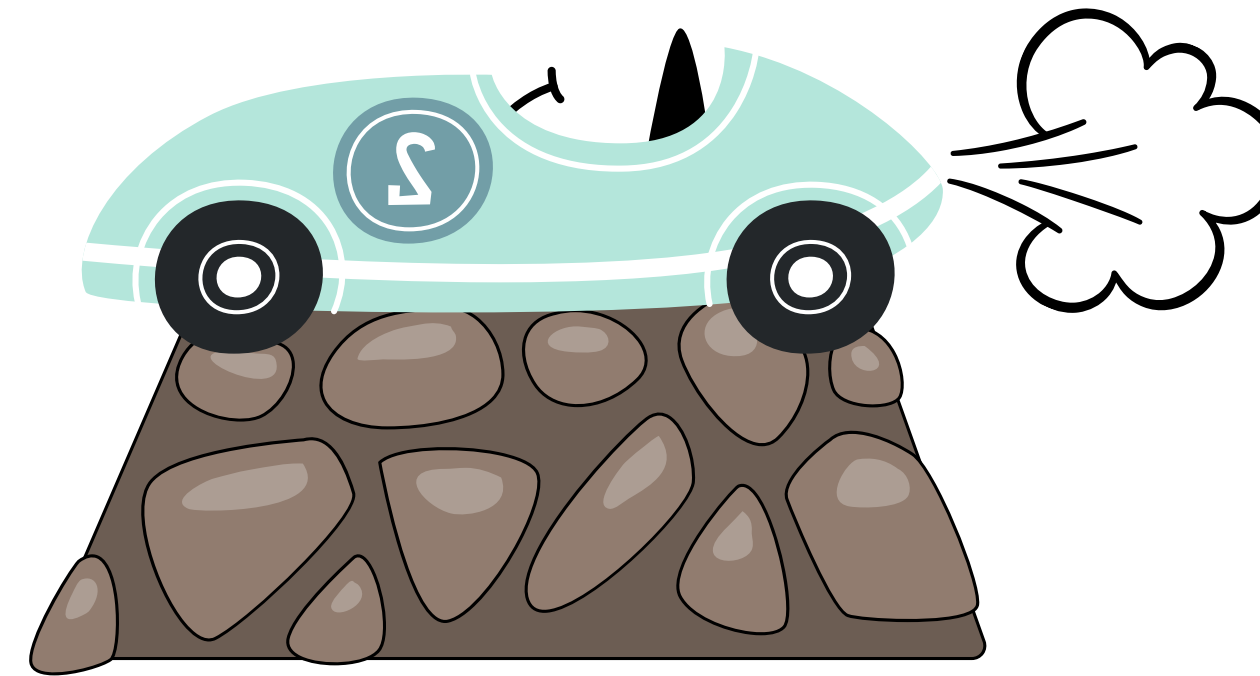


# FRICTION

K-2: Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull.

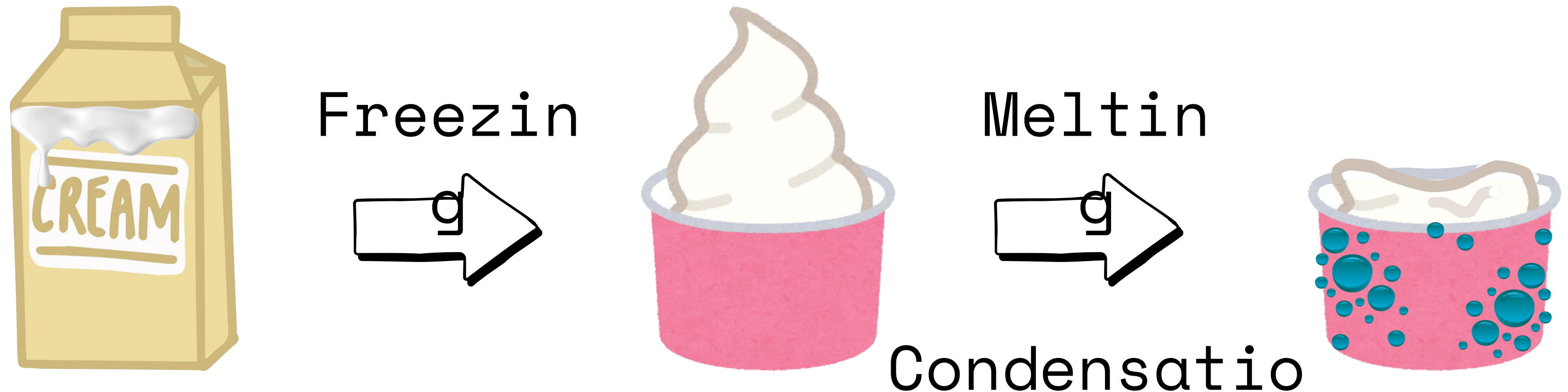


Touch



# Taste

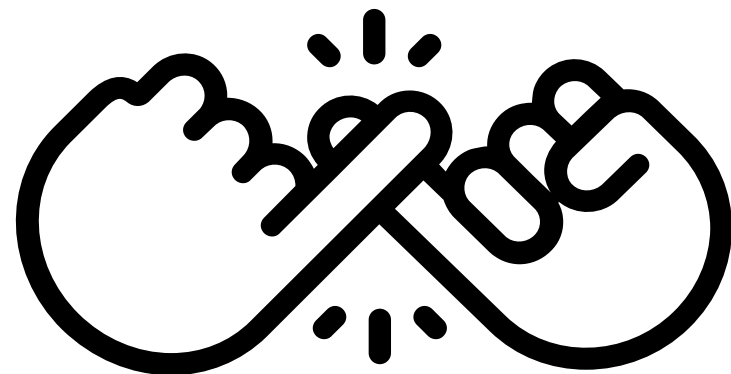
K-2. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.





# Why Outreach & Education?

Building trust  
in science



Establish good  
associations  
young



Know how to  
ask the right  
questions



# Acknowledgements

SPS - Mikayla Cleaver

AAPT - Justine Harren

Thank you!

