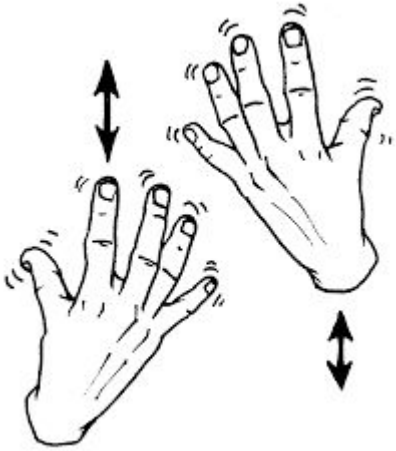
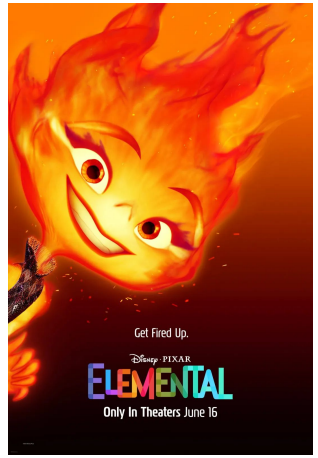


FIRE:

What is it and how do we stay safe?

many cultures view fire as a symbol of wisdom and knowledge.

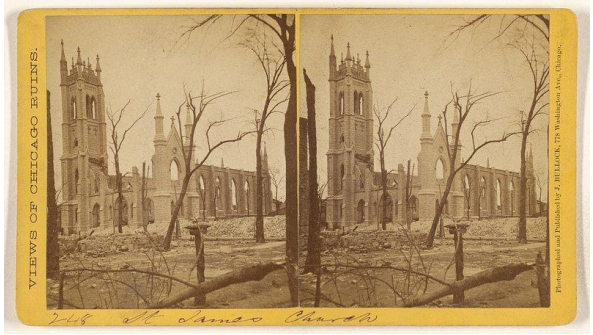
Fire in History



Phoenix: In Greek mythology, the Phoenix is a bird that lives for 500 years and then builds a nest and sets itself on fire to die. A young Phoenix is reborn from its ashes, and the Phoenix symbolizes fire, ashes, renewal, and resurrection.

Prometheus: In Greek mythology, Prometheus stole fire from the gods and gave it to humans.

Native American cultures:Many Native American cultures believe that an animal like a wolf, coyote, or woodpecker brought fire to humans after stealing it from an evil being.



https://www.youtube.com/watch?v=VZhvbmqYniA&t=37s

FIRE around Us

ceramic studio fire Jan 29, 2024

Multi Family house fire in evanston Jan 22 2024

Emmerson and Brown Jan 2023

Dixie Fire

The Dixie Fire in California was caused by a tree falling and hitting power lines owned by Pacific Gas and Electric (PG&E) on July 13, 2022. The tree caused two of the three lines to connect electrically, which resulted in a phase-to-phase fault that blew two fuses. The fire burned 963,309 acres across five counties in Northern California, destroying 1,329 structures and injuring several firefighters. It was contained on October 25, 2022.

Some say that the Dixie Fire could have been prevented if PG&E had turned off the power to the line leading to the ignition site for three hours. Others say that the fire was made worse by extremely dry conditions and a buildup of fuels that had accumulated over a century.

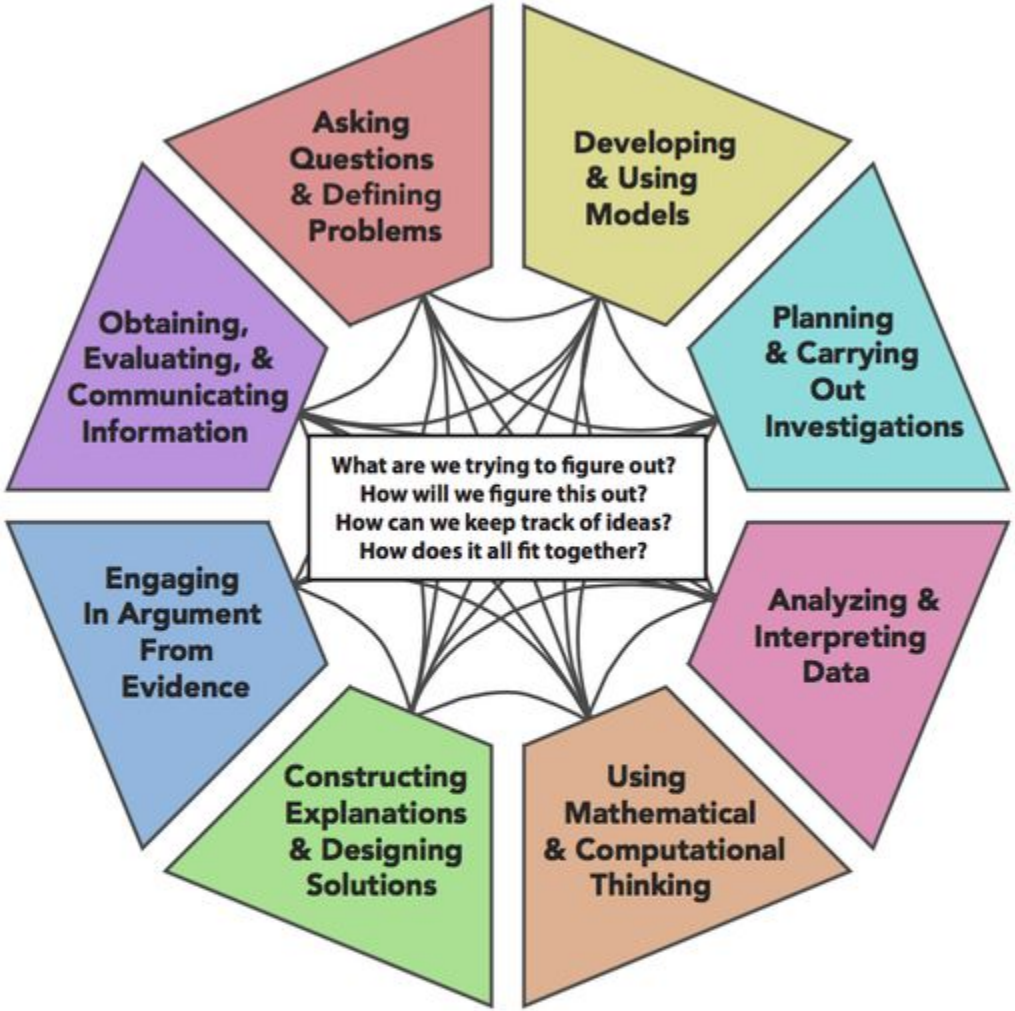
Then and Now-Greenville, CA

https://www.bbc.com/news/av/world-us-canada-58123369 greenville 2021

https://www.youtube.com/watch?v=5hjIoxEMG4g greenville 2023

NGSS: Developing and Using Models

In science, models are used to represent a system (or parts of a system) under study, to aid in the development of questions and explanations, to generate data that can be used to make predictions, and to communicate ideas to others. Students can be expected to evaluate and refine models through an iterative cycle of comparing their predictions with the real world and then adjusting them to gain insights into the phenomenon being modeled. As such, models are based upon evidence. When new evidence is uncovered that the models can’t explain, models are modified.


Asking Questions & Defining Problems
Developing & Using Models
Planning & Carrying Out Investigations
Analyzing & Interpreting Data
Using Mathematical & Computational Thinking
Constructing Explanations & Designing Solutions
Engaging In Argument From Evidence
Obtaining, Evaluating, & Communicating Information
What are we trying to figure out?
How will we figure this out?
How can we keep track of ideas?
How does it all fit together?

Intro to Fire

Notice What did you notice in the kitchen scene?	**Wonder** What are you wondering? What more would you need to know to make a claim about the origin of the fire?	**Initial Thinking** What are your initial thoughts about how the fire started, or where is started?

Start Your Notes:

Date:
Topic: Fire Intro
I noticed:

I wonder:

Initial Thoughts about How or where fire started?

Block 3 Add your thoughts to this pad

https://eths.padlet.org/sowat/FIRE

Groups-block 3

1-Justice, Rutuja, Phoenix, Kiley

2- Elizabeth, Parker, Gael

3- Demarion, Monica, Kenadee, Luca

4- Kaffy, Carl, Grace

5-Kel, Lucian, Nala, Axel

6-Matilda, Adrian, Naomi, Cesar

Action:

1. Find your people and move to a lab table
2. Introduce yourself and share an experience with fire/flame
3. Review the padlet and see if any notices/wonderings can be grouped together

Large group share out

Observe a candle burning- What is burning? Record initial observations

Groups-block 7

Table 1: Charlie Sanai Rihanna	Table 3: Harper Kai Kate	Table 5: Nina Alex Penelope
Table 2: Nayeli Addie Max Posey	Table 4: Abi Jade Hannah Charles	Table 6: Nalani Ari Christina

Action:

1. Find your people and move to a lab table
2. Introduce yourself and share an experience with fire/flame
3. Enter your notice/wonder/thought on padlet.

https://eths.padlet.org/sowat/intro-to-fire-padlet-block7-57nhck2i71d3no4b

Groups-block 2

Table 1: Sam Arvin Rory	Table 3: Iris Judah Jaden	Table 5: Halsten Alex Ellis Paul
Table 2: Mya Nick Guthrie Henry	Table 4: Matthew Dylan Andy	Table 6: Andi Vinnie Jovan Anna

https://eths.padlet.org/sowat/intro-to-fire-padlet-block-2-nzs1u0882ugr0n7k

Action:

1. Find your people and move to a lab table
2. Introduce yourself and share an experience with fire/flame
3. Enter your notice/wonder/thought on padlet.

Groups-block 4

Table 1: Sammy Luna Bryce	Table 3:	Table 5: Evan Ella Lilah
Table 2: Rodrigo Lynh Harper Christian	Table 4: Tristen Celia Nate	Table 6: Dailin Gable Harmony Henry

Action:

1. Find your people and move to a lab table
2. Introduce yourself and share an experience with fire/flame
3. Enter your notice/wonder/thought on padlet.

https://eths.padlet.org/sowat/intro-to-fire-padlet-block-4-8vfxl6gxy7s4sgx4

Groups-block 5

Table 1: Arnold Adam Shia Georgina	Table 3: Kieran Kass Nate Ian	Table 5: Gus Norah Gabby Siyamo
Table 2: Julia Luciano Yolanda Addie	Table 4: Honor Maddy Luke	Table 6: Ayla Owen Will

Action:

1. Find your people and move to a lab table
2. Introduce yourself and share an experience with fire/flame
3. Enter your notice/wonder/thought on padlet.

https://eths.padlet.org/sowat/my-intro-to-fire-padlet-block5-alxr8h0lrtauyotp

1. Review the padlet and see if any notices/wonderings can be grouped together

Large group share out

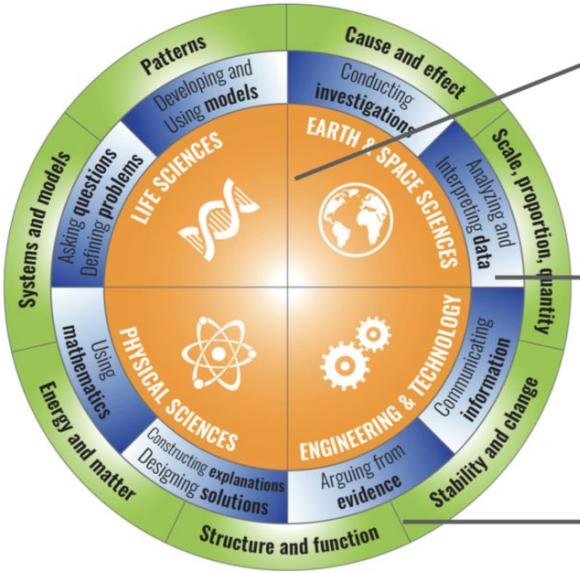
Observe a candle burning- What is burning? Record initial observations

Goggles on!!!

- Put Water in Pan
- Light candle
- What is burning??

Modeling Instruction and the Next Generation Science Standards (NGSS)

AMERICAN MODELING TEACHERS ASSOCIATION



Disciplinary Core Ideas:

Modeling instructional resources cover the DCIs identified by the NGSS and teachers can easily adjust to add additional content as needed

Science & Engineering Practices:

The 8 SEPs perfectly align with the Modeling pedagogy, where students gain valuable experiences 'acting' like scientists

Crosscutting Concepts:

Teachers should be explicit with the 7 CCCs as they progress through the Modeling storyline. The various CCCs appear in each discipline, although *energy* and *models* are the primary focus of Modeling Instruction

Mineral Clip https://www.youtube.com/watch?v=cwgsjq2IFXQ

https://msngss.weebly.com/coaching-with-cari/cascading-the-practices Science in ACtion Video https://www.youtube.com/watch?v=Jj9iNphbY88

https://padlet.com/sowat1/block-3-my-fire-engagement-padlet-9utbwpxu2izr86ez