



#2 Matter and Interactions HTWW (23-24)

Duration: 6 Weeks, 3 hours
Unit dates: 23rd Aug 2023 - 4th Oct 2023
Subjects: Science, Social Studies, English
Grades: 5

Planning



Transdisciplinary theme

How the world works

Transdisciplinary theme focus

- how humans use their understanding of scientific principles



Central idea

Matter exists in different forms and can be changed.



Learner profile attributes

Inquirers, Thinkers



Key concepts

Causation, Change, Form



Related concepts

Concepts

- **Causation:** properties
- **Change:** chemical and physical changes
- **Form:** states of matter



Lines of inquiry

- How scientific principles can help us to understand changes in matter (chemical and physical changes, change)
- The variables that cause properties to change (properties, causation)
- The different states of matter (states of matter, form)



Approaches to learning

Thinking Skills

Thinking Skills

Thinking Skills (General)

Teaching the ATL skills

Thinking skills as students will be experimenting to apply understanding of the concept.
Journeys -SEL Unit 5 Responsible Decision Making



Subject standards

Science

Engineering Design

Asking Questions and Defining Problems

- 3-5-ETS1-1 Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

Constructing Explanations and Designing Solutions

- 3-5-ETS1-3 Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

Planning and Carrying Out Investigations

- 3-5-ETS1-2 Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

Matter and its Interactions

Developing and Using Models

- 5-PS1-1 Develop a model to describe that matter is made of particles too small to be seen.

Planning and Carrying Out Investigations

- 5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
- 5-PS1-3 Make observations and measurements to identify materials based on their properties.

Using Mathematics and Computational Thinking

- 5-PS1-2 Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.

English

Reading: Informational Text

Craft and Structure

- CCSS.ELA-LITERACY.RI.5.5 - Compare and contrast the overall structure (e.g., chronology, comparison, cause/effect, problem/solution) of events, ideas, concepts, or information in two or more texts. (CCSS.ELA-LITERACY.RI.5.5)

Key Ideas and Details

- CCSS.ELA-LITERACY.RI.5.3 - Explain the relationships or interactions between two or more individuals, events, ideas, or concepts in a historical, scientific, or technical text based on specific information in the text. (CCSS.ELA-LITERACY.RI.5.3)

Writing

Production and Distribution of Writing

- CCSS.ELA-LITERACY.W.5.4 - Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3 above.) (CCSS.ELA-LITERACY.W.5.4)
- CCSS.ELA-LITERACY.W.5.5 - With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grade 5 here.) (CCSS.ELA-LITERACY.W.5.5)

Range of Writing

- CCSS.ELA-LITERACY.W.5.10 - Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences. (CCSS.ELA-LITERACY.W.5.10)

Text Types and Purposes

- CCSS.ELA-LITERACY.W.5.3 - Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. (CCSS.ELA-LITERACY.W.5.3)



Teacher questions

What is matter?

What are the three main states of matter?

What are the properties of the three states of matter?

Compare physical and chemical changes.

Describe mixtures and solutions.

Explain solute, solvent, and solution.

How do we use scientific principles?



Student questions

How is matter created?

Where does matter come from?

How can we change matter?

What is an atom?

How many atoms are there?

Implementing

Learning experience library



Unit Time Line

Cindy L. Schofner



Mission Possible? Day 6: Design a poster

Amy Rios

Hey friends! This is your last assignment for How the World Works! You should have fun with this! Design your own Climate Change poster! If you don't have poster paper, that's okay. Read about your choices on the assignment!! Make sure you can either take a picture of it or use the ADD button to TURN IN!!!



W3 Day 1

Amy Rios

Exploring matter

Teacher reads book: [What's the Matter in Mr. Whiskers' Room?](#) by Michael Elsohn Ross; Read pages 1-15 and 40-41. Have students discuss Matter and what interests them. Make a list of student interests: (pebbles, water, bell, gallium, different types of solids, oobleck, dirt, atoms slime, gas-water vapor with mouth, reactions, plasma)

Have students complete the observation and prediction sheet during their investigation of solid and liquid mixture.

Materials: Cane sugar, Kosher salt, water, droppers, wax paper/tinfoil (2 squares each)

Students place a small amount of sugar on one square, and a small amount of salt on the other square.

Inquirers describe a solid and the reaction of an added substance

[Solid liquid gas chart with definitions and pictures of molecules](#)

Observation & prediction sheet

https://learnresc-my.sharepoint.com/:w/g/personal/cschofner_learn_k12_ct_us/Ec8gMZ943VFAnmZyvDr4HMQBVZpkcfzDYIz7LSZx-OIkZQ?e=H9ixcl



Week 2 Day 1

Amy Rios

Whole group Review and Do (older provocation):[Planning a Party and Choosing the Best Kool Aid](#)

Whole group Scientific Process - Part 1:[Planning and Carrying Out an Investigation](#)

Scientific Process - Link to Google Form Part 1:[HWW G5 Provocation: Question Set 1](#)



Mission Possible? Day 6 Create a Poster



Amy Rios

Hey friends! This is your last assignment for How the World Works! You should have fun with this! Design your own Climate Change poster! If you don't have poster paper, that's okay. Read about your choices on the assignment!! Make sure you can either take a picture of it or use the ADD button to TURN IN!!!



El Ciclo del agua #1

Amy Rios

¡Hola RMMS amigos!, listos para continuar con nuestras clases virtuales.
Ahora vamos a ver acerca del ciclo del agua.

Ahora:

- 1.- Tú tienes que mirar el video .
- 2.- Tú tienes que completar los espacios en blanco en tus dos hojas de trabajo. En español.
- 3.- Tú tienes que mandarme tu tarea.

¡Ten un gran día!

Ms. Diana. 🦋

Hi, RMMS friends! Today we are going to see the water cycle.

Now:

- 1.- You have to watch the video.
- 2.- You have to complete the blanks on the two worksheets. In Spanish.
- 3.-You have to send me your assignment. don't forget to turn in!

Have a great day!

Ms. Diana 🦋



Floods and Droughts

Amy Rios

Click the links to watch BOTH National Geographic videos on Floods and Drought. Make sure you "Click on the Speaker" on the lower right side to get sound!! Then click on the HWW response and explain how these disasters could be connected to each other. What are some ways humans can be protected from these disasters?



Provocation

Amy Rios

Explore the 3 states of Matter of water (liquid, ice, gas) and record observations on a Venn Diagram

Students (in small groups) will explore 3 jars of water in different states. Jar #1 will be a liquid (water), Jar #2 will be a solid (ice), Jar #3 will be (condensation-when gas becomes a liquid). For gas, wet a piece of black paper and put a hair dryer on it. Students record their findings on a Venn Diagram.

See the "Minds on Matter" packet for Venn Diagram and answer key.

At the end of this activity, gather students to discuss their findings. Record answers on a large Venn diagram. Encourage students to post their wonder questions on the wonder wall/Have students generate questions that they could learn about matter during the unit.

See if students can come up with connections, commonalities and differences.



Open - Provocation

Amy Rios



Mission Possible? Day 1: What is Climate Change?

Amy Rios

Click on the BrainPOP link below to watch Tim and Moby explain Climate Change. Next, see if you can fill the empty boxes on the Solutions with Science chart! Here is the log on information, but I don't think you'll need it:

BrainPOP

<https://www.brainpop.com>

Username: rmms2011 Password: rmms



Week 2 Day 3

Amy Rios

Break apart the theme

Theme, LP's, ATLs, Key & Related Concepts



Week 2 Day 2

Amy Rios

Continued from Monday

Link to Google Part 2: [HWW G5 Review and Do: Question Set 2](#)



Mission Possible? Day 2 Kangaroo Gas

Amy Rios

Click on the NOVA Kangaroo Gas and climate change video link and see if you can figure out how kangaroos and Global Warming might be related. On the Mission Possible Day 2 Reflection try to explain what science may be able to do to help the problem.



Week 2 Day 4

Amy Rios

Kool Aide Investigation:

[Create a New Kool-Aid Drink Whole Group Inquiry of Scientific Principles](#)

- Create a new Kool-Aid drink whole group inquiry scientific process
- Remind students to bring in a ½ cup of sweetener of their choice
- There will be regular sugar in classroom for students who don't bring in a 3rd sweetener



El Clima #3

Amy Rios

Hola ! estudiantes de RMMS

El día de hoy vamos a practicar todo lo que aprendimos del clima usando Quizlet.

Aquí les dejo el link.

¡Tengan un bonito día!

Ms. Diana 🦋

Hi RMMS students!

Today we are going to practice everything that we have learned so far about the weather using Quizlet.

Here is the link.

Have a nice day!

Ms. Diana. 🦋

Quizlet link: <https://quizlet.com/507900939/clima-flash-cards/>

Clima match: <https://quizlet.com/507900939/match>

Clima formative: <https://quizlet.com/507900939/test>



Week 2 Day 5

Amy Rios

Guided Investigation including new vocabulary to use throughout the unit

Whole group Scientific Process:

[Create a new Kool Aid Drink](#) Worksheet and Answer sheet

Student Data Collection Sheet:

[Data Collection & Scientific Protocols: Kool Aid Investigation](#)



W4 Day 1

Amy Rios

Why do we manipulate matter?

Physical changes

Popcorn, Popsicles & Chocolate

Physical Change:

- Having a whole apple and then chopping or slicing it up
- Having a paper bag and then crumpling it
- Blowing up a balloon- the change in the shape of the balloon is the only difference.
- Melting chocolate bars in a baggie, in hands- then leave out on desk to harden again

Follow up with: Introduction to changes in matter (heat): Sid The Kid Cooking:

<http://pbskids.org/video/sid-science-kid/1568871751>

Note: Have students search for different kinds of Matter in their homes on Tuesday for homework due on Wednesday.

For teacher use on popcorn

<https://tpsciencefun.wordpress.com/2011/02/02/is-popping-corn-a-chemical-or-physical-change/>

Claim: I think we could test different solids to find out what causes them to change because matter can be manipulated.

Data table for Students: Why do we manipulate Matter? Popcorn, popsicles, chocolate and more.

https://docs.google.com/document/d/1kHxgMu2KB07ia4GP9SPRHyeck22wtfA2v4wgKMAD_Ow/edit?usp=sharing



Day 2 Physical Properties

Amy Rios

Changing paper. Give students a piece of paper and tell them to change it in some way. Discuss. Give students new paper and make a snowflake and review the physical changes that occur as you are making the snowflake.

Follow up with: Crash Course Kids: Hunting for Properties: <https://www.youtube.com/watch?v=ZZYnERZe3Cg>

Crash Course Kids: What's the Matter? (3:30)

<https://www.youtube.com/watch?v=ELchwUIlWa8>



Mission Possible? Day 3-Renewable Energy

Amy Rios

Watch the National Geographic video on Renewable Energy. Then see if you can come up with a Pro and a Con for each of three types of renewable energy. Then, give your opinion on which one you think is the best.



El Clima #2

Amy Rios

Note: two more attachments from Google Docs needed

¡Hola maravillosos estudiantes de español!

¡Espero se encuentren muy bien y listos para otra clase virtual!

Lo que tienen para hacer ahora es:

- 1- Ver el video de el tiempo atmosférico.
- 2- Revisar el vocabulario en el documento adjunto.
- 3- Hacer la actividad
- 4- Mandar tu tarea por Google Classroom o turn in.

Ten una semana estupenda

Ms. Diana

Hello wonderful Spanish students!

I hope you are ready for your online class!

Your job for today is:

1. Watch the video
2. review the vocabulary sheet.
3. Do the assignment in Spanish.
3. Send me your work to google classroom. Don't forget to turn in!

Have a nice week!



W3 Day 2

Amy Rios

Complete Exploring Matter investigation from Monday

Formative Assessment:

Students make a model of Molecules of Matter for a Solid, Liquid and Gas

Scientific Principles Graphic Organizer

<https://docs.google.com/document/d/1dLVyLlh5FU-cCz-VllogkO-q5Mcnxao9eor45BH1v64/edit?usp=sharing>



W3 Day 3-5

Amy Rios

Solution Vs. Mixture

Topic: Mixtures and Solutions affect change as well as molecule movement

(2-3 days) 5ps1-1

Teaching Point: Inquirers understand that mixtures and solutions affect change and model molecules as a solid, liquid and gas.

(Teacher knowledge: solid close together, liquid farther apart and fluid, gas very far apart and floating)

Link from Jeremy on Matter Molecules (phet)

https://phet.colorado.edu/sims/html/states-of-matter/latest/states-of-matter_en.html

Homogenous is a solution

[For Teacher Use Mixture vs Solution Click Here for link](#)

Another link for teacher use on mixtures and solutions

<https://www.vedantu.com/chemistry/difference-between-mixture-and-solution>

Molecules can be introduced during a morning meeting movement activity

Other Resources: Introduce mixture versus solution. Might be able to use a trail mix or a cake mix as an example for students to draw on. Or chocolate milk (mixture-particles do not dissolve all the way) salt water (solution-particles dissolve)

Both can be separated. Leave on tinfoil in the sun.

Data Table for Students: Changing Matter Data Table

https://docs.google.com/document/d/1uFH11pW9aQiVF-bnmm9zj8TpoVFXRj_LzVjFJIE2UJU/edit?usp=sharing

Updated Data Table for Students on Changing Matter. Uses water and milk not fizzy balloon.

https://docs.google.com/document/d/1OHq366Paa_Xe2VNvxI3d9S_C6uaY-p8qPY_hDYgyww/edit?usp=sharing

Background information:

A mixture is a combination of two or more substances that can be separated. (i.e. trail mix)

If you have not already done so you could blow up a balloon with baking soda and vinegar here show gas has movement and talk about the molecules.

Make a chex mix, which is a mixture of solids. Draw molecules of a solid

Make sugar water, which is a mixture of a solid and water. Draw molecules of a liquid

Make fizzy lemonade (see recipe below), which is a mixture of a liquid and a solid and gas is released. Draw molecules of gas.

<https://www.thoughtco.com/fizzy-sparkling-lemonade-made-with-science-607468>

A solution is a mixture that has one substance dissolved into another and distributed equally throughout. (i.e. salt into water)

One way to teach this

- Investigation: Kitchen Science Lab for Kids: Lab #3 pages 18 & 19; Fizzy Balloon
- Add rubber bands to secure balloon to bottle!!!
- Follow up with: Crash Course Kids: The Great Picnic Mix-Up: <https://www.youtube.com/watch?v=jA0PzbIYPUM&t=1s>

- Show at some point show after The Great picnic Mix-Up: Crash Course Kids: Chemical Change: https://www.youtube.com/watch?v=37pir0ej_SE&t=47s
- Use: Fizzy Balloon Investigation Recording Sheet for kids to record their observations (See planning resources or link below)
- https://learnresc-my.sharepoint.com/:w/g/personal/lramage_learn_k12_ct_us/EZiw_ArjPlhHhLSCN_HebmABTV6Li7D0FPpNnat4emXMxw?e=mQVBde

Homework/Formative Assessment Sheet

<https://docs.google.com/document/d/11xKGbaG3eZIR2Y20u8eseXBb-N16mCvjgRGfuktkvVw/edit?usp=sharing>

Formative Assessment - Checking for Understanding:

Have students go home looking in their homes to find examples of the 3 states of matter and 2 mixtures and 2 solutions. Remind them to look in their pantry or fridge for these items. Have them share in group discussions.



W4 Day 2

Amy Rios

Butter inquiry & (Ice Cream not this year)

Here is a video from Paulie on how butter is made

<https://video.link/w/ssQJc>

Save butter in the refrigerator for their bread next week

For a quick butter guide and recording, sheet use this link

<https://agclassroom.org/matrix/lesson/625/>

Here is a link for the claim that can be printed back to back with the above form.

https://docs.google.com/document/d/14RHXrcBZBmaJ_GwECw63YP2qkFPDErGKOdhv3a9V4FA/edit?usp=sharing

Some examples of a claim that could be used are below:

I think we could test heavy cream to find out what changes it goes through when you shake it because I know that matter changes and people manipulate matter to use it for food.

Or

Because I know that cream is a dairy product and people make butter from it but I don't know how it becomes butter.

or

Because I want to know what kind of change it goes through and what states of matter are involved.



W4 Day 3

Amy Rios

6 baggie mystery powders

Extension: Add water first then vinegar to each substance

Topic: Investigating Mystery Powders to determine properties

(Concepts 1-5). 5-PS1-3. (2 days)

Teaching Points: Inquirers determine properties of matter by observing physical and chemical and reactions.

One way to teach this:

<https://www.uen.org/lessonplan/view/2176>

Five powders and five tests are provided for students to explore chemical and physical properties, changes, and reactions.

Note: You may limit the number of powders depending on the availability of materials, but try to have at least four.

(See Planning Resources for materials list, Directions for Mystery Powders, and Recording Sheet for Mystery Powders)

The five mystery powders in this activity have different physical properties, even though they are all white. Also, they will have different chemical

reactions. Some will not react at all with the substance, only creating a physical change (wetting). Others will produce obvious chemical reactions.

The following changes and reactions can be expected in this activity:

1. Baking soda fizzes with vinegar (chemical reaction).
1. Cornstarch turns black with iodine (chemical reaction).
1. Plaster of Paris turns hard and warm with water (warm: chemical reaction; hard: physical change).
1. Sugar turns brown, then black with heat (chemical reaction).
1. Salt tastes salty; sugar, sweet (physical change).
1. Sugar and salt dissolve in water (physical change).
1. Iodine changes powders to its own color, but not a new one (physical change).

Instructional Procedures

Attachments

- [DIRECTIONS FOR MYSTERY POWDERS.doc](#) (in Planning Resources)

[MYSTERY POWDERS RECORDING SHEET.doc](#) (in Planning Resources) Step 1. Divide the students into groups of 5. Explain that two observations will be made in these experiments.

- a. Physical properties
- b. Physical changes and chemical reactions.

Step

2. Each group should have a copy of the directions and the

recording sheet. [See Mystery Powders Lab Directions and Recording Sheet.] Before giving students directions, remind them about care in experimenting. Never taste unknown substances. What will you

need to remember to be safe during this experiment? What social skills will you need to successfully conduct this experiment?

Step 3. After the investigation, discuss with the class their observations in the two areas:

a. Physical properties

b. Physical changes and chemical reactions.

Observing Properties of Matter

Determining physical and chemical changes

Mystery Powder Link

<https://www.uen.org/lessonplan/view/2176>

NSTA link

<https://ngss.nsta.org/Resource.aspx?ResourceID=419>

Myster Powder write up

<https://serc.carleton.edu/sp/mnstep/activities/26786.html>

Scientific Method Power Point

<https://docs.google.com/presentation/d/1AlbRR7lh9WnLBsIsTT2Hbzfy15Coote/edit?usp=sharing&oid=108267984503803967275&rtpof=true&sd=true>

CER Model Inquiry (NGSS)

<https://www.edutopia.org/blog/science-inquiry-claim-evidence-reasoning-eric-brunsell#:~:text=According%20to%20the%20Claim%2C%20Evidence,the%20evidence%20supports%20the%20claim>

CER explanation and free downloads

<https://www.forthe loveofteachers.com/claim-evidence-reasoning/>

<https://www.texasgateway.org/resource/lesson-12-scientific-practices>



Day 3-4

Amy Rios

For classwork have the students use the attached Frayer Model for solids, liquids, gases with characteristics, nonexamples, definitions, etc.

Forms below saved in planning resources

<https://betterlesson.com/lesson/resource/3199064/3-frayer-models-graphic-organizer>

<https://www.youtube.com/watch?v=s-KvoVzukHo>

<https://www.youtube.com/watch?v=21CR01rlmv4>

If finished early you can introduce the choice board. Make Copies

- Choice Board: <https://docs.google.com/document/d/1d8hdsf7A8jzgptrkln-hRzia2lJ92L7xhhREp87W-SY/edit?usp=sharing>

**Mission Possible?: Day 6 Design a Poster**

Amy Rios

Hey friends! This is your last assignment for How the World Works! You should have fun with this! Design your own Climate Change poster! If you don't have poster paper, that's okay. Read about your choices on the assignment!! Make sure you can either take a picture of it or use the ADD button to TURN IN!!!

**LA.U7.RML2 A free verse poem doesn't have to rhyme or have rhythm.**

Amy Rios

U7 – Exploring Different Kinds of Poetry

LA.U7.RML2 A free verse poem doesn't have to rhyme or have rhythm.

**Earthquakes and Tsunamis**

Amy Rios

Click the links to watch BOTH National Geographic videos on Earthquakes and Tsunamis. Make sure you "Click on the Speaker" on the lower right side to get sound!! Then click on the HWW response and explain how these disasters could be connected to each other. What are some ways humans can be protected from these disasters?

**LA.U10.RML3 Writers use personification to give human qualities to something that is not human.**

Amy Rios

U10 – Reading Like a Writer: Analyzing the Writer's Craft

LA.U10.RML3 Writers use personification to give human qualities to something that is not human.

**Volcanos and Wildfires**

Amy Rios

Click the links to watch BOTH National Geographic videos on Volcanoes and Wildfires. Make sure you "Click on the Speaker" on the lower right side to get sound!! Then click on the HWW response and explain how these disasters could be connected to each other. What are some ways humans can be protected from these disasters?

**LA.U10.RML1 Writers use poetic or descriptive language to appeal to the five senses.**

Amy Rios

U10 – Reading Like a Writer: Analyzing the Writer's Craft

LA.U10.RML1 Writers use poetic or descriptive language to appeal to the five senses.

**LA.U10.RML2 Writers use similes and metaphors to compare one thing to another.**

Amy Rios

U10 – Reading Like a Writer: Analyzing the Writer's Craft

LA.U10.RML2 Writers use similes and metaphors to compare one thing to another.

**LA.U7.RML1 A lyrical poem is a songlike poem that has rhythm and sometimes rhyme.**

Amy Rios

U7 – Exploring Different Kinds of Poetry

LA.U7.RML1 A lyrical poem is a songlike poem that has rhythm and sometimes rhyme.



Earthquakes

Amy Rios

Watch both videos.

Complete the HWW chart



Hurricanes and Tornados

Amy Rios

Click the links to watch BOTH National Geographic videos on Hurricanes and Tornadoes. Make sure you "Click on the Speaker" on the lower right side to get sound!! Then click on the HWW response and explain how these disasters could be connected to each other. What are some ways humans can be protected from these disasters?



LA.U7.RML3 A limerick is a rhyming poem that is usually surprising, funny, and sometimes nonsensical.

Amy Rios

U7 – Exploring Different Kinds of Poetry

LA.U7.RML3 A limerick is a rhyming poem that is usually surprising, funny, and sometimes nonsensical.



LA.U10.RML5 Writers choose precise words to create a mood.

Amy Rios

U10 – Reading Like a Writer: Analyzing the Writer's Craft

LA.U10.RML5 Writers choose precise words to create a mood.



LA.U10.RML4 Writers choose language to fit the setting.

Amy Rios






























U10 – Reading Like a Writer: Analyzing the Writer's Craft

LA.U10.RML4 Writers choose language to fit the setting.



Resources

- [Google Docs: Sign-in](#)
- [Whipping Butter into Shape](#)
- [How It's Made-Butter](#)
- [Google Docs: Sign-in](#)
- [Is Popping Corn a Chemical or Physical Change!?](#)
- [Cooking is Chemistry | Sid the Science Kid Videos | PBS KIDS](#)
- [Difference Between Mixture and Solution](#)
- [What are some examples of homogeneous mixtures and heterogeneous mixtures? - Chemistry 1A](#)
- [States of Matter](#)
- [Google Docs: Sign-in](#)
- https://learnresc-my.sharepoint.com/:w:/g/personal/cschofner_learn_k12_ct_us/Ec8gMZ943VFAnmZyvDr4HMQBVZpkcfzDYIz7LSZx-OIkZQ?e=H9ixcl

-  <https://docs.google.com/document/d/1O09N-JyJyYxuiRk1X45Nf1y4hx2JEL0n/edit?usp=sharing&ouid=108267984503803967275&rtpof=true&sd=true>
-  [Google Docs: Sign-in](#)
-  [States Of Matter - Solids, Liquids & Gases | Properties of Matter | Chemistry | FuseSchool](#)
-  [- YouTube](#)
-  [3 frayer models graphic organizer](#)
-  [3 frayer models graphic organizer](#)
-  [What's Matter? - Crash Course Kids #3.1](#)
-  [Hunting for Properties: Crash Course Kids #9.1](#)
-  [Water: Solid Liquid and Gas](#)
-  [Google Docs: Sign-in](#)
-  [Google Docs: Sign-in](#)
-  [Constellation Location: Crash Course Kids #31.2](#)
-  [constellations in motion](#)
-  [Earthquakes 101](#)
-  [Tsunamis 101](#)
-  [Earthquakes 101](#)
-  [Tsunamis 101](#)
-  [Hurricanes 101](#)
-  [Tornadoes 101](#)
-  [Volcanoes 101](#)
-  [Climate 101: Wildfires](#)
-  [Floods 101](#)
-  [Droughts 101](#)
-  [Climate Change - BrainPOP](#)
-  [Kangaroo Gas and Global Warming — NOVA | PBS](#)
-  [Renewable Energy 101](#)
-  [El tiempo atmosférico para niños | Aprender vocabulario en español | Nuevas palabras para niños](#)
-  [El Ciclo del Agua | Videos Educativos para Niños](#)
-  [Week 8 ciclo del agua Gr. 5](#)

Reflecting



Teacher reflections

Ongoing reflection

Jeremy Ellis • 12:19 pm, 12th Jan 2024

How did the strategies we used throughout the unit help to develop and evidence students' understanding of the central idea?

Strategies included: teacher and student inquiry = motivation, enthusiasm, thinking skills
collaboration and group work = communication, accountability, teamwork
Research/Inquiry = engagement, open minds, knowledge
Experiments/Investigations = organizational skills, teamwork, questioning, hands-on learning, etc.

Students had many opportunities to inquiry, interact, collaborate, and discuss the central idea and lines of inquiry. Students took notes, answered questions, and demonstrated their understanding throughout the unit.

What learning experiences best supported students' development and demonstration of the attributes of the learner profile and approaches to learning?

Learning about scientists who embody the LP traits
Using the LP traits throughout investigations
The scientific process, the scaffolding of experiments
Using rubrics to self assess the LP
Co-constructed rubrics

What evidence do we have that students are developing knowledge, conceptual understandings and skills to support the transfer of learning across, between and beyond subjects?

We have pre and post-assessments, at-home projects, self-assessments, formative assessments and tasks

To what extent have we strengthened transdisciplinary connections through collaboration among members of the teaching team? What did we discover about the process of learning that will inform future learning and teaching?

Essential Arts teachers review our UOI and connect to the LP, ATLs, and themes as best they can.



Assessment reflections

Ongoing reflection

Jeremy Ellis • 12:22 pm, 12th Jan 2024

How effective was our monitoring, documenting and measuring of learning informing our understanding of student learning?

It informed our next lessons and changed how material was taught; Future planning; Experiments offered (easy, med, hard)

What evidence did we gather about students' knowledge, conceptual understandings and skills?

We had scientific planners and graphic organizers, written expression and reflections, 3D representations, videos and pictures, posters and other modalities that demonstrated understanding

How will we share this learning with the learning community?

Students shared to their peers and classroom; Projects were hung up in the school;
Messages and pictures are sent home to families