

Newtown Public Schools

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- 34 years teaching in Newtown- 19 years in the classroom, 15 years as Math/Science Specialist
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Timeline

- Newtown Public Schools' alternative learning plan commenced on March 18th
- First distance learning science lesson was shared on March 19 for Grade 5, and March 23rd for grades K-4
- K-6 schools are 1-to-1 student to Chromebook/iPad
- Chromebook distribution to families, making for a paperless option
- Wireless hotspots were made available through district tech

Planning

Examined what remaining PE needed to be instructed. Established scope and sequencing for remaining PE's

Grades K-4

- Needed to examine what PE remained untaught in the current unit being taught and any remaining units for the year for grades K-4
- Among the 4 MSS we divided up the work of rewriting lessons to include at least 3 days of science per week
- These lessons were shared among the grade levels at the 4 elementary buildings for teachers to insert into their lesson plans

Grade 5

- Coordination with STEM teacher, Assumed lesson planning for our 12 math/science teachers
- Thematically grouped performance expectations, keeping in mind generalized limitations of at home instruction/materials, cooperative learning opportunities.
- Uploading lessons for a week ahead in order for SE staff to review and adapt.

Distance Learning Science Assignments
Science Lessons for Grade 1



Week of March 23 - March 27

Day 1

- Watch the [Listening Walk with Mrs. Bracksieck](#) video.
- Take a walk around your yard or neighborhood (with an adult) and list 5 sounds you hear.

Day 2

- Read pgs. 1-13 of eBook [Sounds All Around](#)

Day 3

- Finish reading pages 14-25 the eBook [Sounds All Around](#)

Day 4

- Use materials you have at home to build an instrument. What kind of sounds can you make? Loud? Soft? High? Low?

Day 5

- Take another walk around your yard or neighborhood (with an adult). This time, list 3 things you see that you never noticed before.

Distance Learning Science Assignments
The Birth of Rocks Grade 4 Unit
Week 4



This week students will learn about the types, causes, and dangers of landslides.

Week 4- Erosion, Natural Hazards & Engineering

Mystery #3 - [How could you survive a landslide?](#)

Day 1- Explore

- In your "The Birth of Rocks" journal put today's date at the top of a new page. **Write a few sentences describing what you think a landslide is.**
- Watch the Exploration part of Doug's [video](#).
- Think about **why all of the rocks came down at once**. Write a few sentences in your notebook explaining what you think.

Day 2-

- In your "The Birth of Rocks" journal put today's date at the top of a new page.
- Watch the next part of the [video](#).
- **Answer these questions in your notebook:**
 - **Imagine you were trying to decide when and where to go camping in a hilly area. What would you look for to decide whether it's a safe place to camp?**
- Continue watching the [video](#).
- In your notebook list as many ideas as you can think of to protect your house. If someone at home is available talk about your ideas with them.

Day 3 & 4-

- Choose one of the Engineering ideas you came up with to protect your house.
- In your "The Birth of Rocks" journal put today's date at the top of a new page. **On this page of your notebook draw a sketch of your design plan and write some sentences to explain it.**
- **Present your idea to someone in your family.**
- **On a new page of your notebook write**
 - **1 thing your REALLY like about your idea AND**
 - **1 thing that would improve your idea**



Todd Stentiford

Apr 2 (Edited Apr 2)



Grade 5:

For this shortened week, your students will have an opportunity to extend their observations and deepen their thinking around their water cycle in a bag from last week. We'll have them looking to notice patterns in the bag that roughly parallel the real-world activity of water vapor. It shouldn't take too much time for students to complete, so for teachers that haven't assigned the iNaturalist activity from last week, that could be assigned this week as well. If you feel they need more work (!), they could always be asked to complete additional iNaturalist observations to add to those they've already done.



Week 4: Water Cycle in a ...

Google Docs



Week 4: Water Cycle in a ...

Google Forms



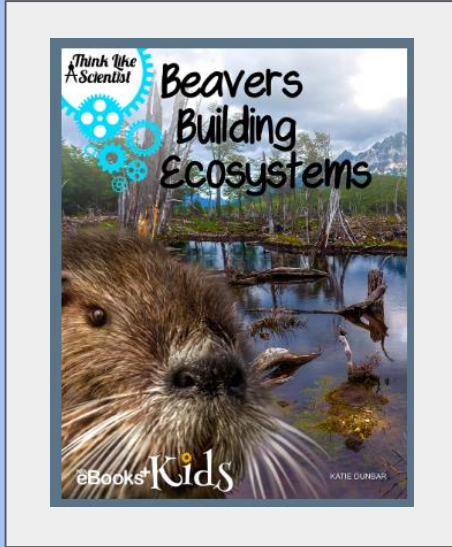
Science in Your Yard!

Google Forms

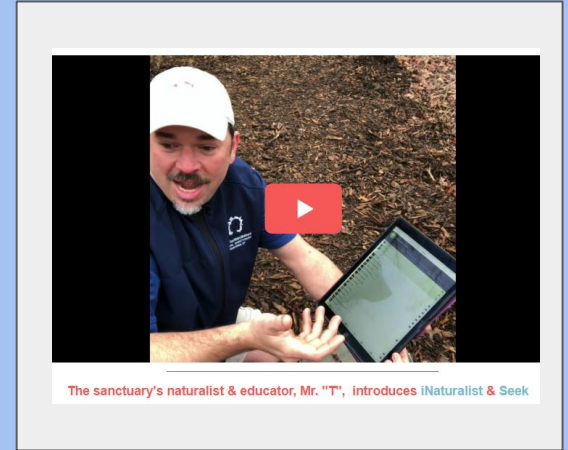
Resources/ Technology

- Mystery Science
- PBS Learning Media
- NSTA ebooks
- Local nature centers/ professional environmentalist
- PHET simulations
- Google Classroom/ Seesaw
- G Suite: Classroom, Slides, Sheets, Meet, [Keep](#), Docs, YouTube, Forms
- Editable PDF

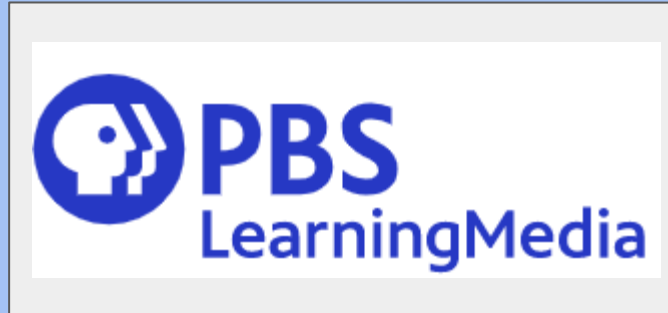
Resources



NSTA eBooks



Local Nature
Centers - CVHS



Press Esc to exit full screen



1:57 / 3:09



Meeting of Hot and Cold Air, Part 2



0:06 / 2:56



The slide show below illustrates several other ecosystems. As you navigate through the slide show, think interactions in the grassland ecosystem might compare to the interactions in other ecosystems.

SLIDE SHOW 1 Several of the main ecosystems found on Earth.



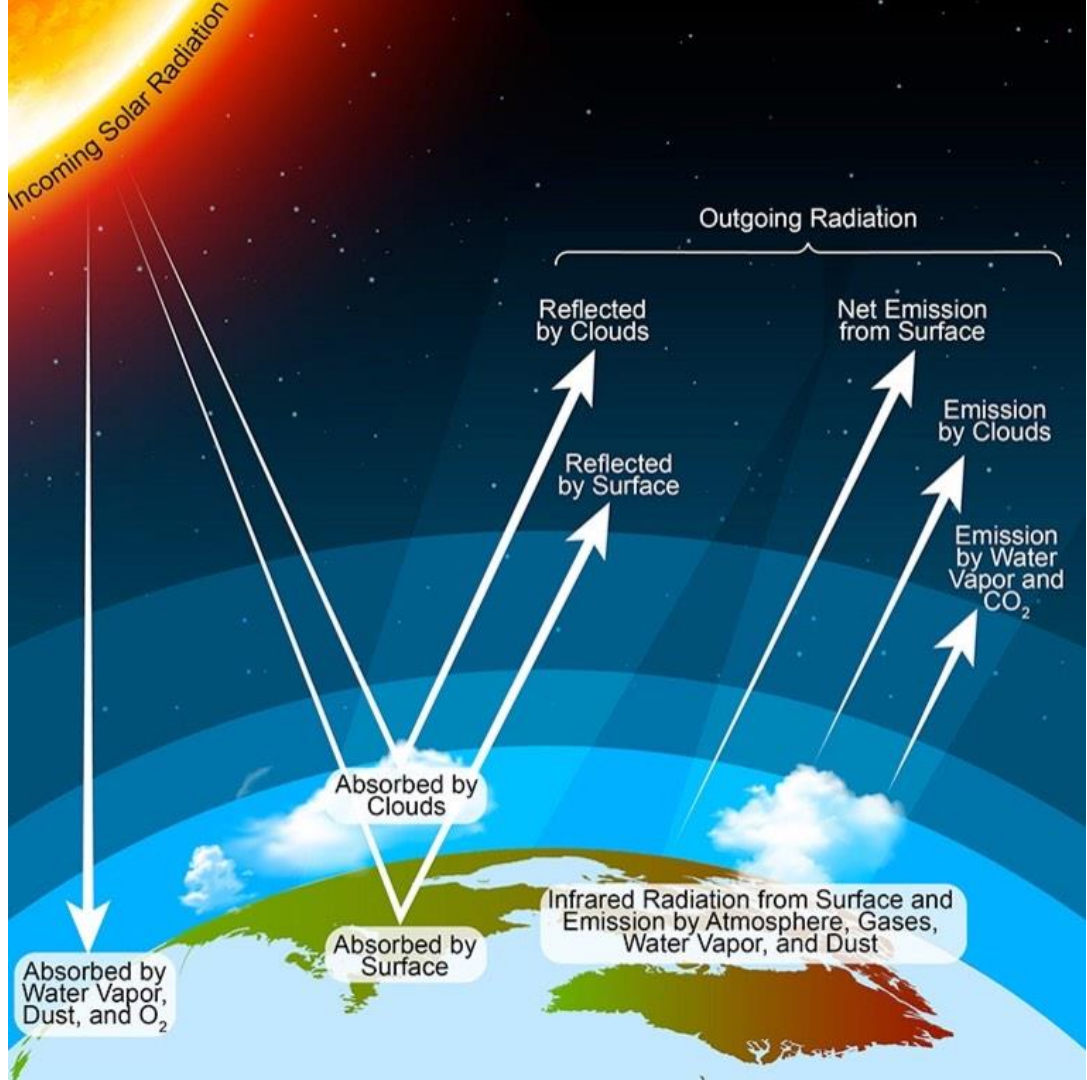
In each of these ecosystems between the various cor like the rain forest, matt quickly due to the optim: temperatures and abun like the desert and tundr as readily due to limited nonliving factors. In evei organisms are adapted I allows them to most effi

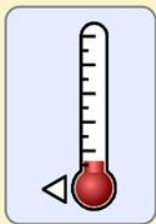




Tropical rain forest ecosystems are characterized by an average annual rainfall of 175-200 cm and an average temperature of 20-25°C. These ecosystems are located in the equatorial zone and receive a consistent amount of sunlight throughout the year. The soil quality in rain forests is often quite poor due to the rapid decay promoted in these warm, wet environments. Most of the trees' nutrients come from the top layer of decomposing leaves and animals, which means that many trees have roots near the surface. The soil below this surface layer is often insufficient in terms of minerals and nutrients. Because rain forests typically have optimal growing temperatures year-round, these ecosystems are extremely diverse in terms of species.



You will explore some of more depth later in this : look closer at the biotic : components that interac how they relate to the fl

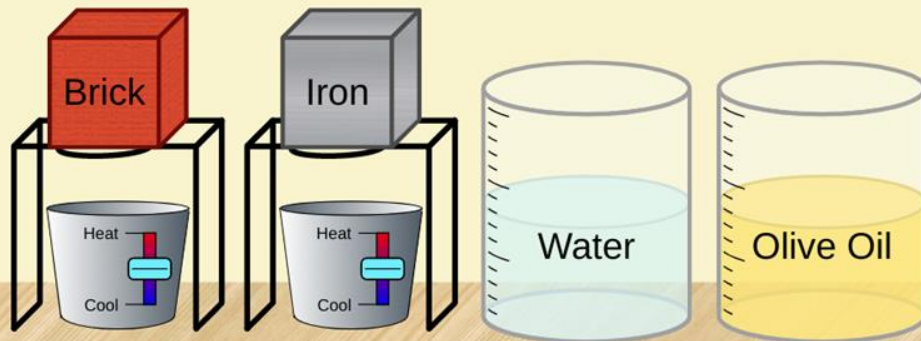




- Energy Symbols 
- Link Heaters 

PhET

INTERACTIVE SIMULATIONS





Kindergarten- Carrying out an investigation and recording observations of a walking rainbow.

padlet

Question of the Day- Wednesday, April 29, 2020

Our new science unit is "Patterns of the Sun and Moon." Share something interesting that you have learned!

Shadows move when the light changes directions. There's no shadow with a moon.

There's only a shadow when there's a little bit of light

The moon is in the light at nite

When you move the shadow moves too

When the sun is out you can see your shadow. When the sun is not out you cannot see your shadow.

You can make objects move because their shadows move because shadows get bigger and smaller during the day.

The shadow moves when the sun moves.

I noticed that when the sun moves, the shadow moves.

When the sun is up high your shadow is small, but when the sun is low your shadow is big.

My mom and my dad techt THE SUN Rotates. aro shows direction of the sun

When the light moves the shadow can move.

When you move the sun, you move the shadow.

I studied the moon with my telescope

PBS LearningMedia

4/28/20

Day Moon Sky Watch Recording Sheet

Name: _____

Circle what day it is today. Monday Tuesday Wednesday Thursday Friday

Write what time it is: 11:12 AM It is morning/afternoon. (Circle one.)

Where is the moon? Draw what you see.

Write about what you see. I see the sun. I dont see the moon.

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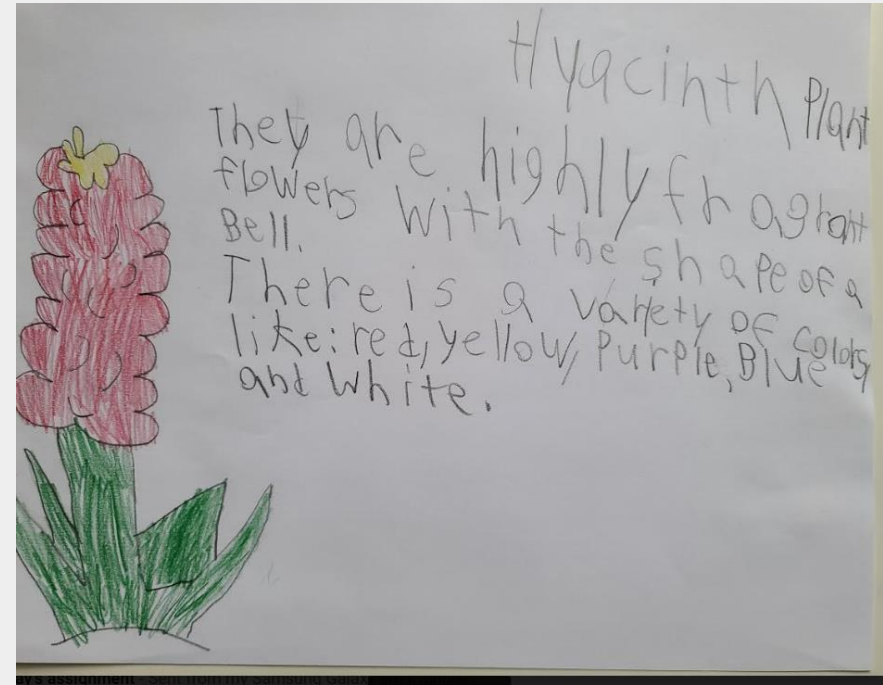
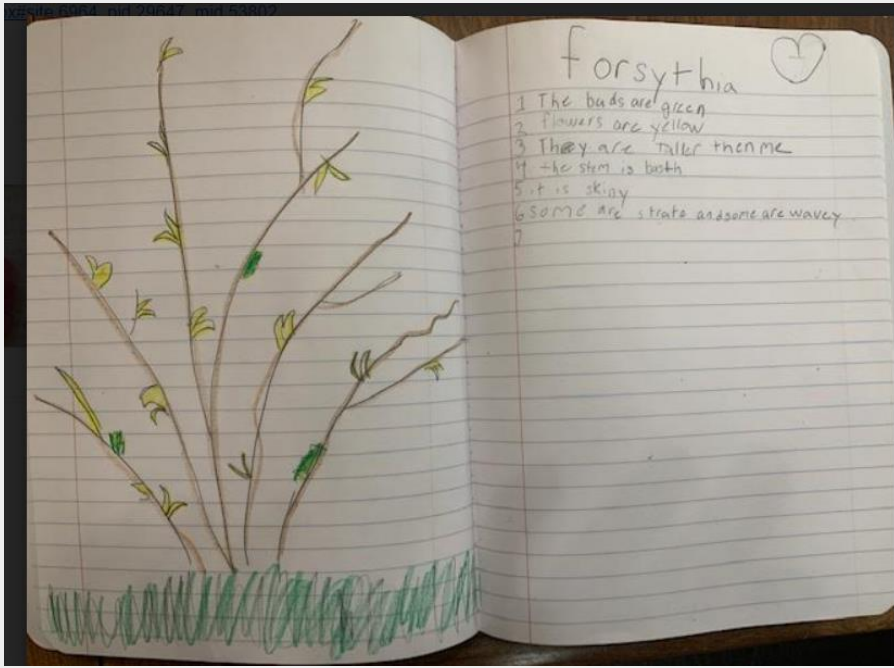
The material contained in this product is based upon work supported by NASA under cooperative agreement award No. NNX16AD71A. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Aeronautics and Space Administration.

Grade 1 - Padlet of student answers to a given questions

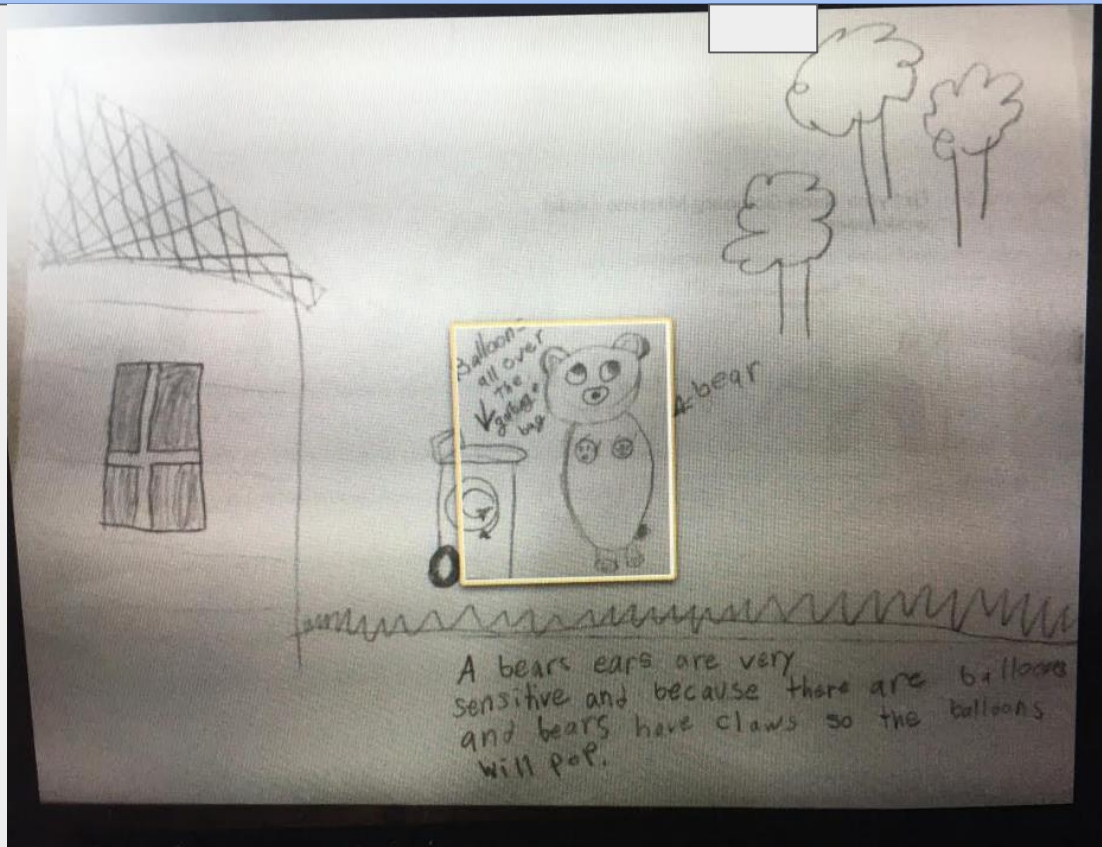
Grade 1 - Daily journal entry to collect and record data



Grade 1 - Students' work posted for classmates to see how they carried out an investigation of moving a flashlight to make shadows move.



Grade 2 - Student observations of characteristics of a plant communicated in a science journal used throughout the unit.

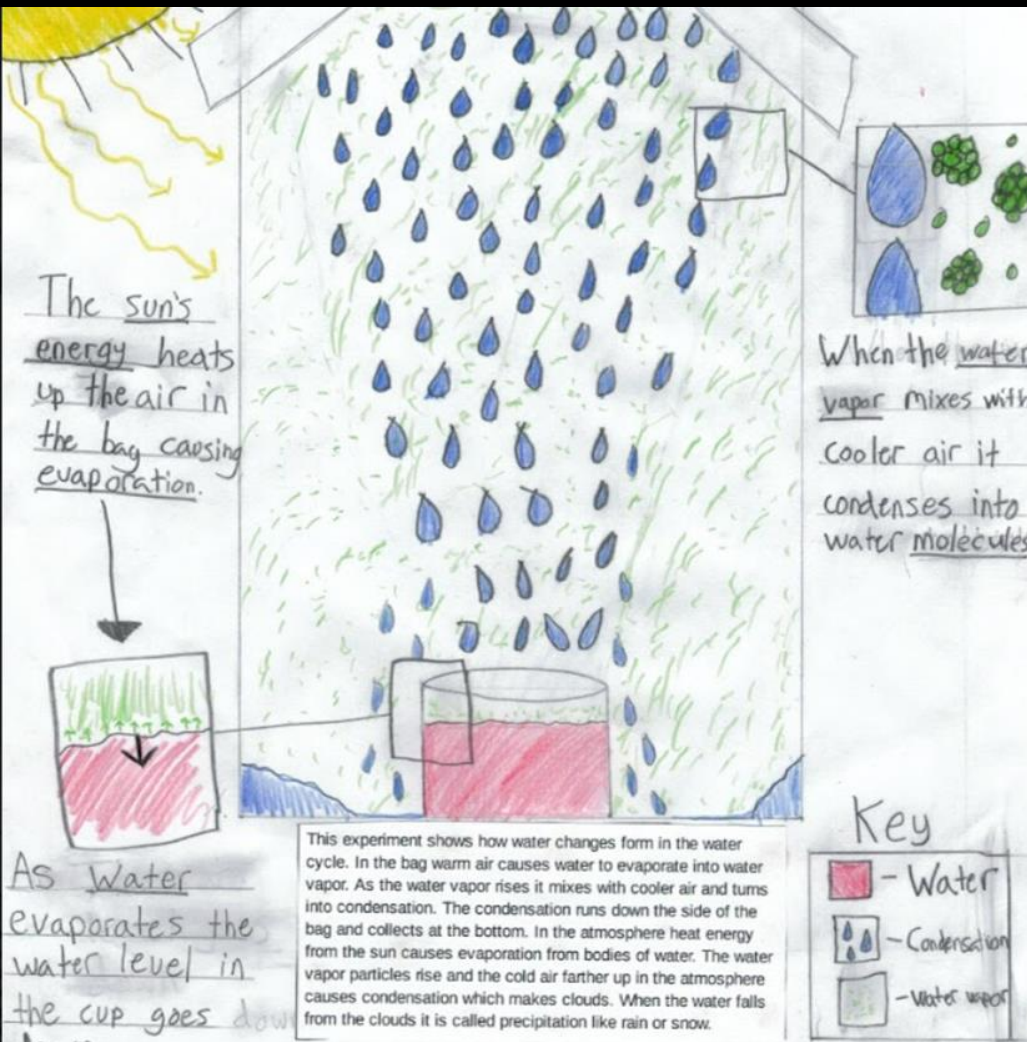


Model of a bear deterrent

A photograph of a glass filled with a blue liquid, placed on a surface covered in condensation. The glass has a decorative, faceted pattern. The background is a dark, textured surface with many small water droplets. A plastic bag is partially visible on the right side of the frame. The text 'Engaging Science and Engineering Practices:' is overlaid in yellow on the right side of the image.

Engaging Science and Engineering Practices:

- Developing and using models
- Planning and carrying out investigations
- Construction Explanations



keep.google.com/u/0/#label/Water%20Cycle

Water Cycle

Notes

Reminders

Water Cycle

Water Cycle in a Bag Samples

Edit labels

Archive

Trash

Water Cycle: Friday, March 27th

I noticed that droplets of water are forming above the glass on the inside of the bag. The sun porch is colder, 67 degree Fahrenheit this morning. I wonder if the change in temperature has anything to do with the water forming.

Water Cycle: Saturday, March 28th

Today is a cool cloudy day outside. About 55 degrees, cloudy. There is approximately 50% more water formed on the inside of the bag closest to the window. I wonder if the coolness from the glass is allowing the droplets to form better. I should have made a mark on my glass so I could see if the water level is changing.

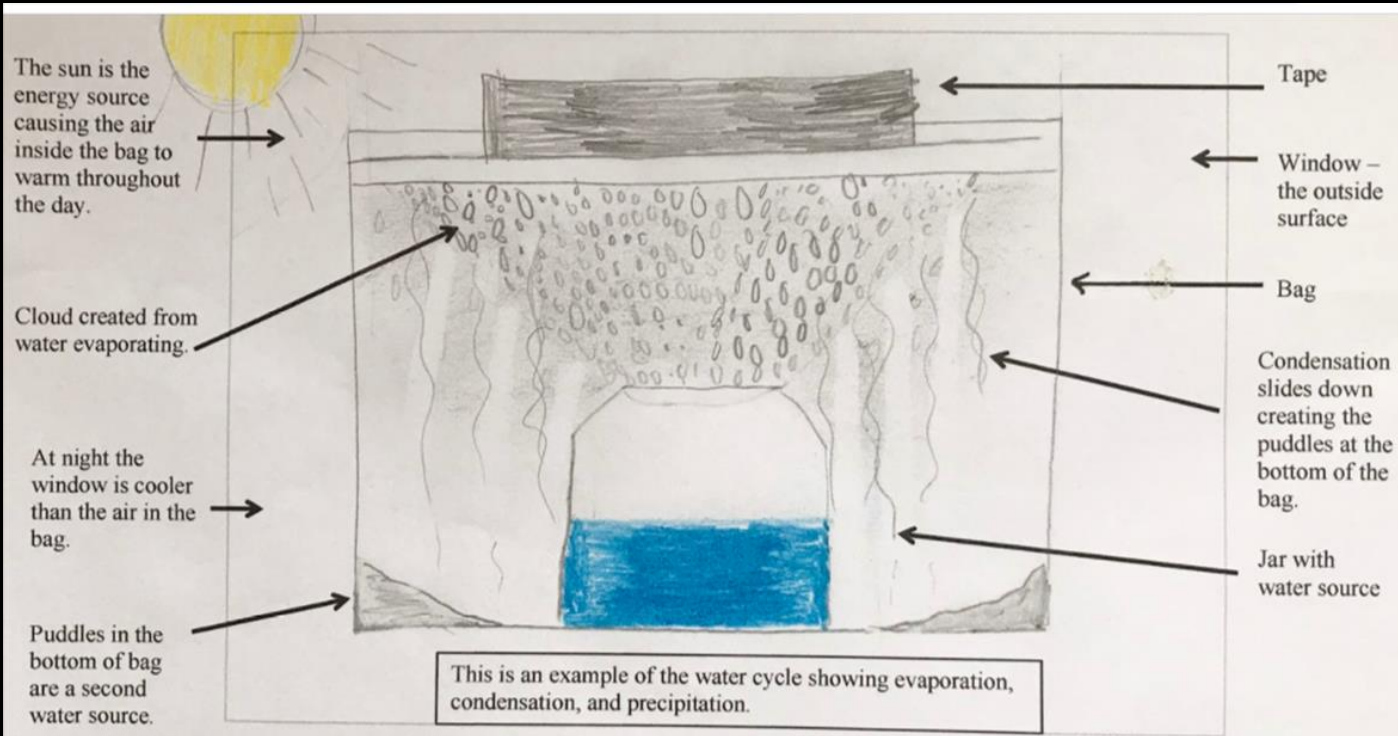
Water Cycle: Monday, March 30th

Another cloudy and cool morning. Today I notice that some of the water droplets have fallen to the bottom of the bag, adding to the size of the puddle that began forming yesterday. I wonder if the droplets fall when they get to be too large for adhesion to hold them up. Adhesion is the attractive force that allows water molecules to stick to surfaces, like windows, shower curtains, etc.

Water Cycle: Tuesday, March 31st

I am seeing a pretty consistent level of condensation (liquid water droplets) on the bag during these cloudy days, of which we have had several in a row. I wonder if when the sun does come out, if the water droplets will turn back to vapor. I also am noticing that the water droplets appear most directly above and to the south (right) of the bag. Does the location of the droplets have anything to...

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I think that the condensation is forming throughout the night. I think what is happening is at night the window cools down and the air in the bag is still warm from the sun which is the energy source. Having the warm air in the bag up against the cold window, the outside surface, causes the water from the water source to evaporate and create condensation that forms on the side of the bag up against the window. That condensation forms heavy water droplets that slide down the bag and form puddles at the bottom of the bag. These puddles are now a new water source that also evaporate along with the water in the jar as the cycle continues.



28:15.47

No Laps completed

Stop

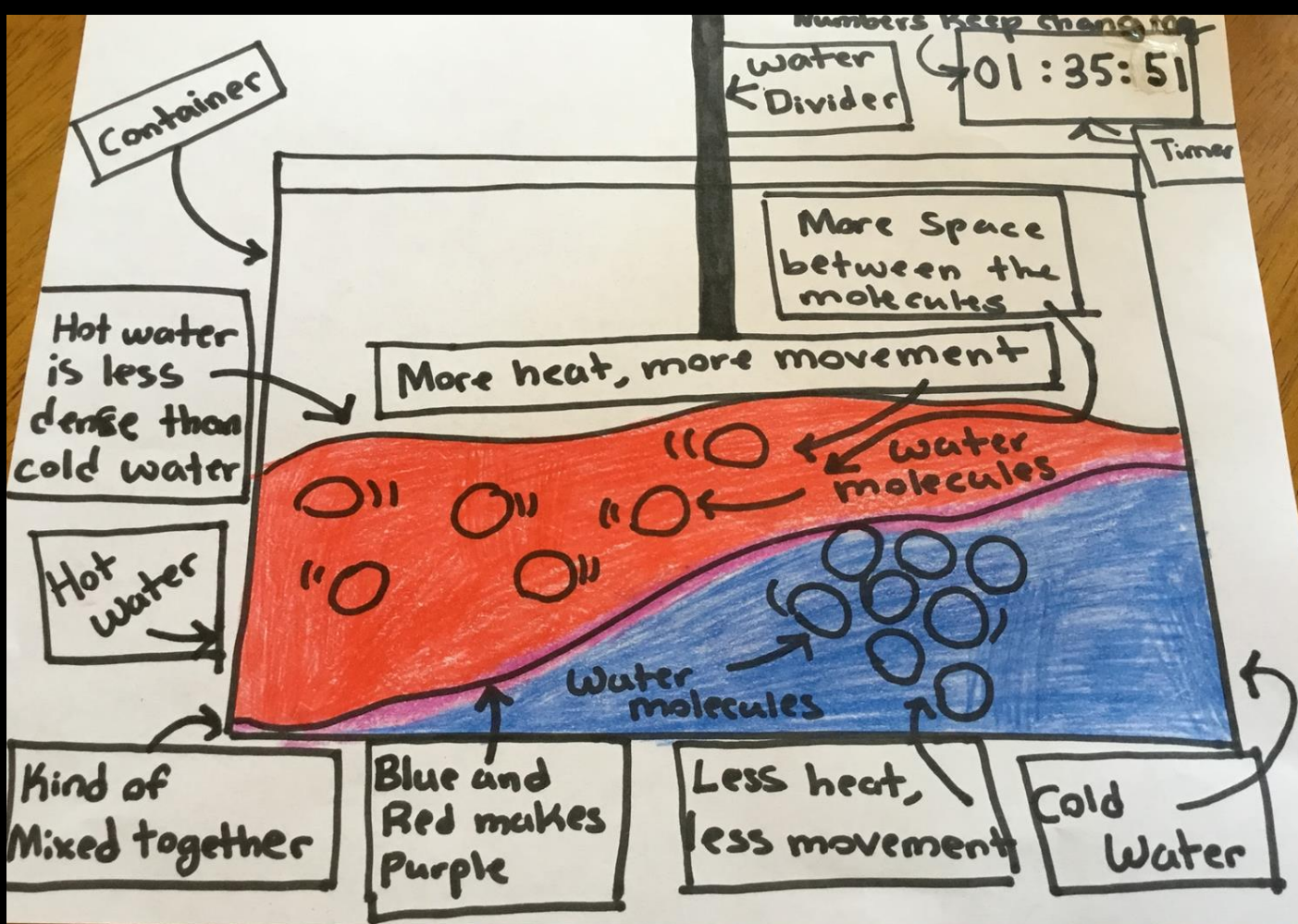
Lap

Alarm

World Clock

Stopwatch

Timer



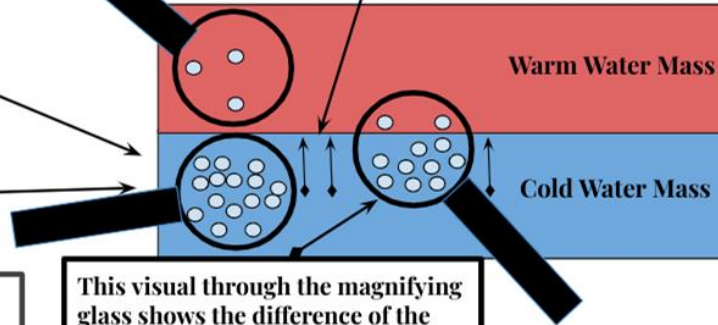
Warm water molecules are spread out and tend to move.

As you can see, each water mass has different density levels. The hot water mass consists of more spread out and moving molecules. On the other hand the cold water mass has compact molecules which vibrate rather than move.

Cold water molecules are compact and vibrate.

This model also relates to a scenario in nature where a cold front and a warm front pass each other in weather. The cold front would go to the bottom as the warmer front would go to the top.

These several tiny arrows show how the cold water molecules are holding up the warm water molecules.



This visual through the magnifying glass shows the difference of the molecule placement between the two water masses and how the warmer mass sits on the impenetrable cold molecules.

I have a connection to an experiment my class did in fourth grade. We put several liquids of different densities to see which one was the most dense. Over the weekend, we saw honey in one layer, soap in another, and maple syrup. This reminds me of this and lets me know that the density of the water masses is what caused the layers.

I believe that the cold water mass went to the bottom rather than the top, which made the hot water mass go to the top, because of the densities. For example, I've learned that the cold water molecules are compact, while on the other hand warm water molecules are spread out. This shows that the hot water molecules would rest on the cold molecules, since they can't penetrate the border.

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