**Saturday Science Lesson Plans**

**Overview:**

|  |  |  |
| --- | --- | --- |
| **Date** | **Theme** | **Main Activities** |
| 4/1/2023 | Astronomy and the solar system | Introductions  Playdough Planets  Modeling the Solar System  Planet Toss |
| 4/8/2023 | The atmosphere: Weathers | ”Touch the card”  Observing weather  Drawing and writing about weather  Severe weather  Flash card basketball |
| 4/15/2023 | Earth’s surface– habitats | Read-aloud  The Habitat Song  Visit different habitats  Desk pet art |
| 4/22/2023  EARTH DAY! | Earth’s surface– Earth’s layers + Volcanoes | Earth as an onion  Modeling Earth’s layers with play-doh  Layers of the Earth diagram  The floor is *what?* Review game  Volcanoes (with mentos & coke experiment)  Earth day activity (optional) |
| **4/29/2023** | **states of matter** | Melting ice  Oobleck  Balloon  Spirit balloon |

**Lesson Plan 1**

**Theme:** Astronomy and the solar system

**Goals/Objective: *What is the objective of this class?***

|  |  |  |  |
| --- | --- | --- | --- |
| **Time/Person** | **Activity** | **Procedure** | **Notes** |
| **9:30-9:34**  **(Name)**  **9:34 – 9:50**  **(Name)**  **9:50-9:55**  **(Name)** | Introduction  Activity 1  Introduce Theme | Self-Introduce   * Bingos * 2 truths and a lie * Whose story, is it?   Telling students the purpose of SS. How basic outline.  Ask students what they have heard or know about the term ‘planets’, in the atmosphere. | Distribute papers.  Each student writes funny/crazy stories about themself in a small piece of paper and the class guesses which stories go with whom.  “Astronomy, Atmosphere, Land, Water, and Inside the Earth” |
| **9:55-10:15** | Lecture | Students will be learning about the Names of the Planets, the order of the planets, etc… |  |
| **10:15-10.45 (Name)** | Activity 2 in small Groups | Playdough planets | Children will make models of the solar system together in small groups. |
| **10:45-11:15 (Name)** | Activity 3 in large group | Model the solar system | To show them the vastness of space:   * Take them outside or to a bigger indoor area if it’s raining and have them act like planets, stars, etc. * Give necklaces with labels/pics ahead of time passed out randomly and have them model the solar system, have where they will stand planned and motions, they will do to teach facts about distance and specific plans ahead of time) * Plan to scaffold to discussion while doing this |
| **11:15-11:25**  **(Name)** | Back to class | Read a book | Helps with transitioning back to the theme. |
| **11:25-11:30**  **(Name)** | Activity 4 | Planet toss  Give the take-home Activity | Have 8 buckets for the planets and 1 circle for the sun. In order, one student stands in the circle, tossing a bean bag or ping pong ball into the bucket. This is to learn the names of the planets and the order.  Planet Cootie Catcher + Fact Cards |

**Materials**

* Skylite . Lights up the night sky on the ceiling (slowly, not a risk for seizures or anything). Can be included to engage students
* Make bingo boards
* Play-Doh ($13-20 on Amazon)
* Yarn and paper/print outs of stars, moon, planets for modeling the solar system activity necklaces with labels and pictures. Or alternatives to make these.
* Find book for read aloud (we will do and provide)
* However many kids + teachers are in our class print outs of solar system cootie catcher + fact cards
  + Free on <https://rockyourhomeschool.net/product/solar-system-cootie-catcher/>
* Print out tutorial for cootie catcher origami
  + Shape

    Description automatically generated
  + <https://www.google.com/search?rlz=1C1CHZN_enUS930US930&q=tutorial+for+origami+cootie+catcher&tbm=isch&sa=X&ved=2ahUKEwjh7df6vfD9AhXqk2oFHfLAA4QQ0pQJegQICxAB&biw=1280&bih=601&dpr=1.5#imgrc=gQwE4M5mjibErM>

**Lesson Plan 2**

**Day 2**

Topic/theme: Atmosphere (Weather)

Objectives:

1. Students will identify different weather conditions
2. Students will learn about severe weather
3. Students will learn about the seasons
4. SWBAT read Temperature on a thermometer
5. Students will learn about proper clothing for different weathers

**Launch *(5 mins)***:

“Mirror, Mirror”

* Students are put into groups of 2.
* The students introduce themselves (2 mins). “Favorite weather and why”
* Students are sitting face to face for round 1. For the first round (1 min), a student will move and the other student must follow and be their mirror. )After 1 min, they switch roles.
* For round 2, the students can now stand and do other things. Same amount of time.

**Activity 1 *(25 mins)*:**

* "Touch the cards"
  + **Materials**: Weather Cards: [Link](https://docs.google.com/document/d/1OcijCuBnMye2ThxESGqscv2byldRQ-NawMNN1tU7rsc/edit?usp=sharing)  NEEDS to print 3 COPIES, SINGLE SIDED
  + [Google slides](https://docs.google.com/presentation/d/11azHa2_WhR7YMHJlHqUj2hzCAbx1IcsPycn72W0MOfY/edit?usp=sharing) of the different weathers and how we identify them.
  + Different weather cards are placed around the room. I will first go around each card, place my hand on it and say “It's…..” While I do this, I will show them a gesture to do. Students will follow what I do. It is now the students' turn! I will choose a weather and the students run to touch what they think it is while making the gestures.

**Activity 2 *(15 mins)*:**

* Going outside to check what the weather is like.
* The student will measure the temperature and identify what the weather is like outside
* Have students share what they like and don’t like to do in this weather.

**Activity 3 *(15 mins)*:**

**Materials:** 30 copies of the [worksheet](https://docs.google.com/document/d/1oxBxiWrt_1mxJznO-WoqxwTRr52MLwZbwVh1Y-tz1fI/edit?usp=sharing), colored pencils, crayons, and pencils

* Students will be given a weather to draw/write about. The goal is for the students to write/draw the characteristics of their given weather.
* “What are some ways to identify this weather?”
  + Students will do this activity (10 mins of drawing/writing)
* The student will share in their tables what they drew and why (5 minutes).

**Activity 4(20 mins):**

* Students watch this video: [Seasons and the Sun: Crash Course Kids 11.1](https://www.youtube.com/watch?v=b25g4nZTHvM)
* Google Slides. After every season ask what kind of weather are in this season?
* Intro to severe weather

**Activity 5 (20 mins):**

Materials: Papers to throw away

“Flashcard Basketball”

* Students are put into 2 different teams
* Students line up in front of a recycling bin. The students will be asked the questions about what they learned today. If students answer correctly, they scrunched up a piece of paper and throw it into the trash. The team with the most points wins.

**Reflection and Discussion (until the end):**

* How does this relate to what we learned last week about the solar system?

**Materials needed for Week 2:**

1. Weather Cards: [Link](https://docs.google.com/document/d/1OcijCuBnMye2ThxESGqscv2byldRQ-NawMNN1tU7rsc/edit?usp=sharing)  NEEDS to print 3 COPIES, SINGLE SIDED
2. 22 copies of [worksheet](https://docs.google.com/document/d/1oxBxiWrt_1mxJznO-WoqxwTRr52MLwZbwVh1Y-tz1fI/edit?usp=sharing), color pencils, crayons, and pencils
3. Infrared Thermometers
4. Papers to recycle
5. Crayons, colored pencils, and pencils

**Lesson Plan 3**

**Theme:** Earth’s Surface– Habitats!

**Learning Objectives:** Students will be able to…

* Name five different habitats: ocean, wetlands, arctic, desert, and forest.
* Briefly describe the characteristics of those habitats

**Materials**:

[Google slides to be used throughout](https://docs.google.com/presentation/d/1zdABeCStE1gMalInrxJiIn3mBb3Il1lRZAnHwtSDi0s/edit?usp=sharing)

* + [Desk pet erasers](https://www.amazon.com/URSKYTOUS-Japanese-Classroom-Carnival-Supplies/dp/B07H36XSVT/ref=sr_1_1_sspa?crid=33PSDOU93I29H&keywords=desk%2Bpet%2Berasers&qid=1679608530&sprefix=desk%2Bpet%2Beraser%2Caps%2C132&sr=8-1-spons&smid=A2YN056TM0DSHF&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFOVVJZOExMSEhNWDkmZW5jcnlwdGVkSWQ9QTA3MDExNTQxWk1TWFMzQUlVTzlQJmVuY3J5cHRlZEFkSWQ9QTA4NDA0MjUxSU0wN1g4T1c2T1lRJndpZGdldE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ&th=1)
    - Pack of 46 if possible so kids have options
  + [Animal sticker sheets](https://www.amazon.com/Lovely-Stickers-for-Childrens-02/dp/B07TKJ14CR/ref=sr_1_1_sspa?crid=3C4XOL8VEOIUG&keywords=animal+sticker+sheets+for+kids&qid=1679612691&sprefix=animal+sticker+sheets+for+kid%2Caps%2C111&sr=8-1-spons&psc=1&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEzR1FGS0tEMUNPOUFEJmVuY3J5cHRlZElkPUEwMTYzMzA4MUxYSjlKSFkxVjAxVyZlbmNyeXB0ZWRBZElkPUEwNjM2MTg1MVlPVkUwTVNQNUZDQSZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU=) (for take-home activity)
    - Order color 02, quantity: 2 packs, for take-home activity
  + Sensory supplies for exploring different habitats
    - The Ocean:
      * Big plastic box
        + To fill with water
        + Add something to make it smell like saltwater
    - Wetlands
      * [Artificial moss: withered yellow](https://www.amazon.com/Railroad-Artificial-Miniature-Landscape-Modelling/dp/B08XJCTPZC/ref=sxin_16_pa_sp_search_thematic_sspa?content-id=amzn1.sym.80d9203d-a86c-475e-a9cf-06551be425a2%3Aamzn1.sym.80d9203d-a86c-475e-a9cf-06551be425a2&cv_ct_cx=wetlands%2Bdiorama%2Bkit&keywords=wetlands%2Bdiorama%2Bkit&pd_rd_i=B08XJCTPZC&pd_rd_r=da9402c9-ba47-4369-9eb2-4a3719dcddfb&pd_rd_w=3lJk0&pd_rd_wg=r88F0&pf_rd_p=80d9203d-a86c-475e-a9cf-06551be425a2&pf_rd_r=6WF2438WKTW41675AVDF&qid=1681181658&sbo=RZvfv%2F%2FHxDF%2BO5021pAnSA%3D%3D&sprefix=wetlands%2B%2Caps%2C126&sr=1-4-492482ea-2ad3-4cfe-9d1a-0efc7c5c9374-spons&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFaTExENjlLUVVDRkYmZW5jcnlwdGVkSWQ9QTA1NjczOTAxREY0Sk5FOTcxM0FKJmVuY3J5cHRlZEFkSWQ9QTAxMzQ5NDYyOVBONFU3RU9TQUhBJndpZGdldE5hbWU9c3Bfc2VhcmNoX3RoZW1hdGljJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ&th=1)
      * Big plastic box
        + To fill with water
    - The Artic:
      * [Insta-snow powder 3.5oz](https://www.amazon.com/Steve-Spangler-Science-Insta-Snow-Powder/dp/B07XR3FN3T/ref=sr_1_1_sspa?keywords=snow%2Bsensory%2Bplay&qid=1681180391&sprefix=snow%2Bsensory%2Caps%2C184&sr=8-1-spons&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEyODZCWDZRNVE2TDM3JmVuY3J5cHRlZElkPUEwMTkwOTE4MURUOU00TFdUMEJWRiZlbmNyeXB0ZWRBZElkPUEwMjE4MzIwMTA0MzhKVFlRUk5ITSZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU&th=1)
        + Big plastic box
        + Something to pour the water with
      * Ice cube trays with ice in them that we could take out of the freezer if there is one nearby
    - The Desert
      * [Sandpaper sheets](https://www.amazon.com/Fandeli-36025-Multipurpose-Sandpaper-25-Sheet/dp/B00WSVNIO4/ref=sr_1_1_sspa?crid=5F2BXS114WRH&keywords=sandpaper&qid=1681180850&sprefix=sandpape%2Caps%2C151&sr=8-1-spons&psc=1&smid=A26AEHH0P0GYIA&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEyRk5ET1FNUTZXSzMyJmVuY3J5cHRlZElkPUEwMjY1NTYxM0FMUVI0OUYzUEw0TSZlbmNyeXB0ZWRBZElkPUEwMDMxNTIzM1ZONTI1SThOUVcyViZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU=)
    - The Forest
      * [Artificial leaves](https://www.amazon.com/MerryNine-Artificial-Multicolor-Decorations-Leaves-400pcs/dp/B07PJND6T1/ref=sr_1_15?crid=1L3HCML8V8HIR&keywords=leaves&qid=1681181442&sprefix=leave%2Caps%2C192&sr=8-15)
      * Wood to replicate the branches on the trees
        + Could buy [these](https://www.amazon.com/Unfinished-Natural-Craft-Christmas-Ornaments/dp/B07PFW39X9/ref=sr_1_3?crid=8EXIUPX8I7VA&keywords=wood&qid=1681181517&sprefix=wood%2Caps%2C140&sr=8-3&th=1) if needed
  + 25 print-outs of [the habitat song](https://docs.google.com/document/d/1l1RPH5DydGCpz6YYZspqD6BenJ9gd7enLQvtKNlkR9g/edit?usp=sharing)
  + 25 print-outs of the [5 habitats sensory chart](https://docs.google.com/document/d/1qyz2BWG_sYFMF1tHKtv1jAVm8jayYSV26xOn31E4MYU/edit?usp=sharing) (FIRST PAGE ONLY)
  + 25 print-outs of the [desk pet art template](https://docs.google.com/document/d/1abXWsq-xiBhv3mjertDpTK4XrHpEbhbpjIRUnFMYcyo/edit?usp=sharing)
  + Poster paper for anchor chart
  + Markers for anchor chart
  + Markers, crayons, colored pencils, etc. Supplies for desk pet art
  + “Whose House is That?” by Stan Tekiela
  + [Habitat booklet with 5 coloring pages for each child](https://docs.google.com/document/d/1dfr89yRfpTrqPQ6XA-B0vZv73z4RBSsG8-NIVPC5ads/edit?usp=sharing)

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **Activity/Person** | **Procedure** | **Notes** |
| **5 minutes** | Launch | Teacher will ask the children…   * “What is a place that you consider home?” * “What is there that makes it homey?” * “What do you need that’s there to survive?”   Teacher can ask follow-up questions based on students’ responses. | Materials:   * [Google Slides to be used throughout](https://docs.google.com/presentation/d/1zdABeCStE1gMalInrxJiIn3mBb3Il1lRZAnHwtSDi0s/edit?usp=sharing) |
| **5-10 minutes** | Read-aloud | Teacher will read “Whose House is That?” to students while they are sitting at their desks. Use to lead into group discussion and get their curiosity going. The animal’s house is not its larger habitat but can get them started thinking about the topic of habitats step-by-step. An animal’s house/home is part of its habitat. | Materials:   * “Whose House is That?” by Stan Tekiela |
| **5 minutes** | Group discussion | Gather students’ schema, prior knowledge, and misconceptions about habitats. Before moving on, have them write down one thing they wonder about on a post-it note and post it on the board. | Materials:   * Post-it notes |
| **10-15 minutes** | The Habitat Song | Pass out print-outs of the habitat song and have students group up in the middle or stand up at their seats to learn the habitat song. This will cover what a habitat is and mention the five habitats that students will be studying in today’s lesson. Lyrics will also be on the screen from the Google slides. | Materials:   * 25 print-outs of [the habitat song](https://docs.google.com/document/d/1l1RPH5DydGCpz6YYZspqD6BenJ9gd7enLQvtKNlkR9g/edit?usp=sharing) |
| **5 minutes** | Introduce anchor chart | Start making an anchor chart, which will end up looking something like this but get students to give the 5 habitats we are studying and only list these for now (they were mentioned in the song! not the animals too yet): forest, wetland, desert, arctic, ocean. Tell students we will add to it and lead them into the next activity. | Materials:   * Poster paper for anchor chart * Markers for anchor chart |
| **50 minutes (10 minutes per habitat)** | Visit different habitats! | * The Ocean * Wetlands * The Artic * The Desert * The Forest   For each habitat, I will show a youtube video, visit a location on Google Earth, (< both included within the [Google Slides](https://docs.google.com/presentation/d/1zdABeCStE1gMalInrxJiIn3mBb3Il1lRZAnHwtSDi0s/edit?usp=sharing)) and pass out sensory toys. Following that, I will draw from the students some characteristics of the habitat and some animals that are usually found in each. Guide them along with the senses. Add characteristics to the anchor chart as we discuss them. | Materials:   * 25 print-outs of the [5 habitats sensory chart](https://docs.google.com/document/d/1qyz2BWG_sYFMF1tHKtv1jAVm8jayYSV26xOn31E4MYU/edit?usp=sharing) * Sensory toys for each specific habitat listed at the top of this lesson plan |
| **5 minutes** | Wrap up visiting different habitats & show YouTube Video | Show [YouTube video](https://www.youtube.com/watch?v=FIsgHW11nOs) about habitats as review | Materials:   * Google Slides only |
| **Until the end of class, ~20 minutes** | Desk pet art & continue anchor chart | Students will pick out a “desk pet eraser” in which they will be making an artwork of their desk pet in its habitat, naming their animal and their habitat something fun, and answering questions about the habitat that animal lives is based on the template. Add their animals under habitats accordingly on the anchor chart. | Materials:   * [Desk pet erasers](https://www.amazon.com/URSKYTOUS-Japanese-Classroom-Carnival-Supplies/dp/B07H36XSVT/ref=sr_1_1_sspa?crid=33PSDOU93I29H&keywords=desk%2Bpet%2Berasers&qid=1679608530&sprefix=desk%2Bpet%2Beraser%2Caps%2C132&sr=8-1-spons&smid=A2YN056TM0DSHF&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUFOVVJZOExMSEhNWDkmZW5jcnlwdGVkSWQ9QTA3MDExNTQxWk1TWFMzQUlVTzlQJmVuY3J5cHRlZEFkSWQ9QTA4NDA0MjUxSU0wN1g4T1c2T1lRJndpZGdldE5hbWU9c3BfYXRmJmFjdGlvbj1jbGlja1JlZGlyZWN0JmRvTm90TG9nQ2xpY2s9dHJ1ZQ&th=1) * [Desk pet art template](https://docs.google.com/document/d/1abXWsq-xiBhv3mjertDpTK4XrHpEbhbpjIRUnFMYcyo/edit?usp=sharing) * Markers, crayons, colored pencils, etc. Supplies for desk pet art. |
| **Take-home activity** | Habitats coloring pages | Give each child a sticker sheet and a booklet (5 pieces of paper stapled together of pictures of the different habitats that we studied) and have them place their animals in habitats accordingly to show their parents what they’ve learned.  The pages in the booklet are coloring pages for each of the 5 habitats studied so kids can also color them at home if they wish to. | Materials:   * [Animal sticker sheets](https://www.amazon.com/Lovely-Stickers-for-Childrens-02/dp/B07TKJ14CR/ref=sr_1_1_sspa?crid=3C4XOL8VEOIUG&keywords=animal%2Bsticker%2Bsheets%2Bfor%2Bkids&qid=1679612691&sprefix=animal%2Bsticker%2Bsheets%2Bfor%2Bkid%2Caps%2C111&sr=8-1-spons&spLa=ZW5jcnlwdGVkUXVhbGlmaWVyPUEzR1FGS0tEMUNPOUFEJmVuY3J5cHRlZElkPUEwMTYzMzA4MUxYSjlKSFkxVjAxVyZlbmNyeXB0ZWRBZElkPUEwNjM2MTg1MVlPVkUwTVNQNUZDQSZ3aWRnZXROYW1lPXNwX2F0ZiZhY3Rpb249Y2xpY2tSZWRpcmVjdCZkb05vdExvZ0NsaWNrPXRydWU&th=1) * [Habitats booklet coloring pages](https://docs.google.com/document/d/1dfr89yRfpTrqPQ6XA-B0vZv73z4RBSsG8-NIVPC5ads/edit?usp=sharing)   + Should be stapled, one printout of each PDF link for each kid. |

**Week 4 Saturday Science Lesson Plan: Earth Day!**

**Goals/Objective:**

* Students will be able to identify four layers of the Earth (inner core, outer core, mantle, crust) and briefly describe their characteristics.
* Students will understand the difference between lava and magma (lava is cooler is what we call magma when it reaches the earth’s surface).
* They will understand the relationship between magma and the earth’s layers (magma comes from the mantle).
* Students will learn something about volcanoes.
* Students will celebrate Earth Day by identifying one reason they care about Earth, one thing they want to learn about it, and one thing they can do to protect it.

**Materials**:

Pink highlight = materials I added today. Let me know about any questions/concerns. I am always flexible!

[Google slides to be used throughout](https://docs.google.com/presentation/d/1GDmGYZ1OfH_iKM3vJULYw7uUZehFSuh9Yb5m8nhwc8o/edit?usp=sharing)

* Onion
* Read-aloud books
* Play-doh or air-dry clay
* Paper plates or paper towels
* Plastic knives or popsicle sticks
* Straws
* Crayons, colored pencils, markers
* Printouts of [layers of the Earth diagram](https://superstarworksheets.com/wp-content/uploads/2020/03/LayersoftheEarthLabelingWorksheet.pdf)
* Printouts of [layers of the Earth fact sheet](https://docs.google.com/document/d/1W_Mcu0hA2Wlz2wMqEKC9I8fgSTJPJ_7UssH9tYi-Wvk/edit?usp=sharing)
* Papers hung up on each side of the room labeled for the 4 layers of the earth: The inner core, the outer core, the mantle, and the crust. Can be printed out and hung up or just written down.
* Mentos & diet coke (I can buy)
* Printouts of [Earth Day activity page](https://docs.google.com/document/d/1EuGeXW6U5l8BYNtQviLYB6OFg30gzGEsmh-wa8mXwIg/edit?usp=sharing)
* Printouts of [How Long Really is a Mile? Optional reflection](https://docs.google.com/document/d/1JopfL7I0zea8iX4D4xrwmf4eIiW0e9ZvrNEoRpmTKOw/edit?usp=sharing)

|  |  |  |  |
| --- | --- | --- | --- |
| **Time** | **Activity/Person** | **Procedure** | **Notes** |
| **5 minutes** | Launch– Earth as an Onion | Show students an onion. Ask them what they know about onions. Ask questions and discuss students thinking by talking about how an onion looks like a solid ball but is truly made up of many layers. Ask students what they would see if they pulled back the layers of an onion. | Materials:   * Onion |
| **5 minutes** | Read-aloud | The teacher will get the class’ attention and interest by reading aloud a book and walking around while reading it so all students see the pictures. | Materials”   * Picture book related to the lesson (I plan to go to the library on Kirkwood on Thursday to pick up a book and can show you on Saturday) |
| **30 minutes** | Modeling Earth’s layers with air dry clay | The teacher will have the same materials as the kids and be standing at the front also doing the activity while another will walk around and help as needed. Give kids about 3-5 minutes to play around with the play-doh prior to having them follow along with the activity as to refocus them less throughout.   1. Tell the kids to roll 5 small balls of Play-Doh, each a different color. Tell them to make one smaller than the others. 2. Tell them to take the smallest ball of Play-Doh they made and set it in the middle of their plate or paper towel. 3. Show them the inner core slide. 4. Tell them to take a different colored ball of play dough and flatten it into a rough circle. When this is done, wrap it around the previous ball of Play-Doh (the “inner core” and cover it completely. The whole ball should look like it is one color without the one underneath showing. 5. Show them the outer core slide. 6. Tell them to take a third different colored ball of play dough and do what they did in the previous step. 7. Show them the mantle slide. 8. Tell students to repeat that again with a different color. 9. Show them the mantle slide. 10. Tell students to repeat that again with a different color. 11. Show them the crust slide. 12. Tell students to put their model on their plate or paper towel and cut with their plastic knife or popsicle stick through the play dough ball. Then tell them to look at the inside. They should be able to see the different layers. 13. Tell them to put one half of the model on the plate with the flat part down. Take the straw and push it through the center and pull it out so you can look at it. When you look at it, there should be play dough stuck inside the straw. Explain to students that they are looking at a “core” sample of what the Earth looks like. Part of a geologist’s career is to take samples as so to look at rocks that they can’t see on the surface. 14. Show them the video on the Google slides that will teach them more about what geologists do and what earth science consists of! | Materials:   * Play-doh (four colors for each student, or for each partner pair or group). * Paper plates or paper towels * Plastic knives or popsicle sticks * Straws   Points of discussion:.   * Talk about how long a mile is * What layer do we live on?   + The crust * What is a solid?   + And how it relates to Earth’s layers. * What does a geologist do?   + Studies Earth’s history by observing and recording information about its rocks * Magma vs lava * Get them to come up with continental crust and oceanic crust by talking about habitats last week and more scaffolding. |
| **10 minutes** | Layers of the Earth Diagram | Show students the layers of the earth diagram on the PowerPoint and give them time to color and label their own diagrams. Before doing this, have them compare and contrast the colors of the model they made to the one on the Google slides so that they have the power of identifying the colors of each layer and then can make them on their representations. | Materials:   * Printouts of [layers of the earth diagram](https://superstarworksheets.com/wp-content/uploads/2020/03/LayersoftheEarthLabelingWorksheet.pdf) * Crayons, colored pencils, markers |
| **10 minutes** | The floor is what? Review game | Inspired by the popular game among kids that is called the floor is lava. There will be signs hung up on the four sides of the room for each layer of the earth that students just made models of: the inner core, the outer core, the mantle, and the crust. The teacher will say a statement that is true about one of the four layers of the earth. After the teacher reads the statement, they will say “The floor is what?” Students will go to the side of the room that they believe matches the statement and receive the correct answers. To reinforce concepts, we as a class will come up with motions to do at each of the sides of the room that go with what we learned about the layers. | Materials:   * Papers hung up on each side of the room labelled for the 4 layers of the earth: The inner core, the outer core, the mantle, and the crust. Can be printed out and hung up or just written down. * Printout of [earth’s layers fact sheet](https://docs.google.com/document/d/1W_Mcu0hA2Wlz2wMqEKC9I8fgSTJPJ_7UssH9tYi-Wvk/edit?usp=sharing) (only the teacher will have this to say questions for the game at the beginning, and then once the game is done the students will receive a copy to go back to as well). |
| **30 minutes** | Volcanoes! | Have students go back to their seats and show them the review video on the slides. Then, start a further discussion about volcanoes by doing the classic Mentos diet coke experiment outside to get them engaged. Then, talk about volcanoes and their relationship to lava, magma, etc. Have students lead the discussion but have information ready for them to learn on the slides. Talk about eruptions, how they are formed, active vs inactive volcanoes, and show them the video on the slides. Lead into Earth Day activity. | Materials:   * Mentos * Diet coke |
| **30 minutes** | Closing– Earth Day Activity | Read-aloud book about Earth day and follow along with google slides. After reading, ask students what they learned and what they do to care for the Earth. Talk to them about when the first Earth Day was celebrated and how we continue to learn more about Earth and the climate as science and technology advances. Students will celebrate Earth Day by identifying one reason they care about Earth, and one thing they want to learn about it, and one thing they can do to protect it. They will use this [activity page](https://docs.google.com/document/d/1EuGeXW6U5l8BYNtQviLYB6OFg30gzGEsmh-wa8mXwIg/edit?usp=sharing) to guide them. The students who choose to can share with their classmates or have one of the teachers share for them. Teacher will also make one and go first and show them our examples, unless a student would like to go first! If there’s extra time, can maybe go outside and pick up trash. | Materials:   * Read-aloud book * Printouts of [Earth Day activity page](https://docs.google.com/document/d/1EuGeXW6U5l8BYNtQviLYB6OFg30gzGEsmh-wa8mXwIg/edit?usp=sharing) * Teacher example * Crayons, colored pencils, markers |
| **Take-Home Activity** | Galaxy Slime & How Long Really is a Mile? Optional reflection | Galaxy slime for fun. Students will have the option to explore a mile next time they are in a car, walking, in gym class, etc and write about it in comparison to the miles of the layers of Earth. Will write what we learned on worksheet and they can take home fact sheets. | Materials:   * Galaxy slime * Printouts of [How Long Really is a Mile? Optional reflection](https://docs.google.com/document/d/1JopfL7I0zea8iX4D4xrwmf4eIiW0e9ZvrNEoRpmTKOw/edit?usp=sharing) |

**Lesson Plan 5**

**Day 5**

* Topic/theme: States of matter

**Objective:**

1. Students will be able to compare and contrast between the 3(common) states of matter.
2. Students will be able to identify the different states of matter in the real world
3. Students will make observations and predictions on matters about the states of matters.

**Launch (10 mins)**

* Watch [video](https://www.youtube.com/watch?v=QQsybALJoew)
* Have students discuss the states of matter in tables

**Content (20 mins):**

* Elaborate on video
* Teach more about solid, liquid and gas.

**Activity 1 (20 mins)**:

Matter Scavenger Hunt

Materials: worksheet. 22 worksheets.

* [Print](https://drive.google.com/drive/u/1/folders/14tdggdom4cys_IjdXN8ZPJIpq1Ja4Olw?ths=true) the worksheet from the folder for everyone
* Have students go around the room and write/draw in the worksheet
* Have students share what they found: teacher will write in the front what students share

**Activity 2 (15 mins):**

Ice melter

Materials: 5 clear plastic cups, baking soda, salt, water, and dirt.

* On the same paper from the last activity, have students guess which cup will melt the ice the fastest and why.
* Set timer for 10 mins, class will check back every 10 mins.
* Have students make observations throughout.
* Have students write a reflection

**Activity 3 (10 mins):**

Balloon

Materials needed: balloons

* The teacher will demonstrate by blowing a balloon and explaining how the gas fills up the balloon. This is to show gas in the real world
* Students will each be given a balloon
* Students will be blowing up their balloons

While doing this activity:

Materials: 2 small bottles of Sprite (the ones with the caps), 2 balloons, salt

* Also, do the soda balloon experiment:
* Quickly open the sprite and put balloon over it
* Have students observe what happens
* Do the same thing, but put salt into the balloon this time.

**Activity 5 (30 mins):**

Making Oobleck

Material needed: corn starch, any color of food coloring, a piece of paper for each student, water, something to pour with, and a big enough container.

* Give the paper to students and show them a pic of Oobleck
* Have them make predictions on which states of matter an oobleck might be
* Make oobleck - 2:1 corn starch to water.
* Have each student play with it and have them share what they think it is
* Have students go back to their papers and see whether they were right or wrong
* Have them rewrite what state of matter the oobleck is

**Conclusion :**

* Make students act as molecules
* Use this time to look back and relate it to all the previous lessons
  + Planets: gas vs solid planets
  + The weather: What is today’s weather? What are ice, rain, wind?
  + The habitat: Which habitat is liquid, solid, or gas?
  + The layers: what states of matters are each layers
* etc

Take home activity:

Instructions on how to make oobleck

Materials to buy:

1. corn starch
2. any color of food coloring
3. 5 clear plastic cups
4. baking soda (not a lot, just like half a cup, I unfortunately do not have any at home)
5. Balloons (around 30)
6. 2 small bottles of Sprite (the ones with the caps)