

# PONDEROSA

## ELEMENTARY SCHOOL

Quarterly Project—SCIENCE

DUE: December 7, 2018

### Note to parents.....

For this second quarter, our Kindergarten students will study properties of objects and substances. They will learn how to describe what things are made of (e.g., plastic, cloth, paper) and their physical properties (e.g., color, size, shape, weight, texture, flexibility, and magnetic attraction, floating or sinking in water). They will compare and classify objects, and describe how objects are used based on their physical properties. This second quarter project is designed to help students display their knowledge of Kindergarten expectations for science. It is important that you provide some guidance, however, please try to ensure that the work completed is mostly STUDENT work. For questions or concerns, please contact your child's teacher, or our Instructional Coach, Krista Anderson at [kristaanderson@ccs.k12.nc.us](mailto:kristaanderson@ccs.k12.nc.us). Thank you for your continued support and partnership in education!

## PROJECT DIRECTIONS

Create a booklet or poster that shows the answers for each item.

1. Find a group of colorful objects (a small bag of Skittles or M & M's, marbles, etc.) and sort them by COLOR. Make a chart showing how many for each color.
2. Pick 5 things in your house that have different SHAPES. Name the object and tell the shapes.
3. Find three objects with different TEXTURES (cotton balls, sandpaper, fabric). Explain how each one feels. How are they the same? How are they different?
4. Name three objects that are HEAVIER than you. Name three objects that are LIGHTER than you.
5. What does it mean when we say an object is FLEXIBLE? Draw or glue a picture of an object that is FLEXIBLE.
6. Experiment: With help from your parents, fill a small bowl of water. Test the items in the bag to see if they FLOAT or SINK. What is the difference between an object that floats, and an object that sinks?

Kindergarten

## Skittles

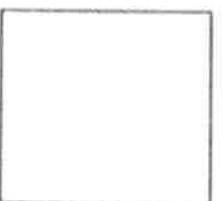
Green ○○○	Yellow ○○○
Purple ○○	Red ○○○
Orange ○○○	Blue

Shapes of things in my house.

Table - square

TV - rectangle

## TEXTURES



Objects

heavier

than me

- 1.
- 2.
- 3.



Objects

lighter

than me:

- 1.
- 2.
- 3.

## FLEXIBILITY

What does it mean when we say an object is flexible?



Picture of flexible object.

Experiment

Object	Floors	Sinks

# First Grade Science Project 2<sup>nd</sup> 9 Weeks

## Phases of the Moon Project

### 1.E.1.2 Recognize patterns of observable changes in the moon's appearance from day to day

In order to describe the moon's appearance and its changes from day to day, you will create a poster, book OR diagram that demonstrates observable changes. You must be able to explain your project to your teacher. Your final product must include:

- the name of each phase of the moon
- a visual example of each phase (be creative in finding ways to represent each phase)
- a description of each phase (two or three sentences)

Put a check mark in each box as you complete to help ensure all parts of the project are complete.

	Title	Visual Representation	Description
New Moon			
Waxing Crescent			
First Quarter			
Waxing Gibbous			
Full Moon			
Waning Gibbous			
Third Quarter			
Waning Crescent			

Please be creative and if you need access to computers for more research or materials let us know and we will make time available for your student at school. Don't forget to include the students' name, teacher's name, school, and grade somewhere on the project.

Thank you

**Due Date December 7, 2018**

First Grade Team

The phases of the moon can be hard to understand but hopefully these pictures and descriptions will help you out. We will take you through each of the eight phases.



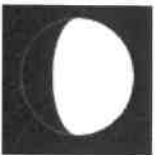
Phase 1 - New Moon - The side of the moon that is facing the Earth is not lit up by the sun. At this time the moon is not visible.



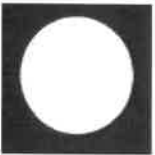
Phase 2 - Waxing Crescent - A small part (less than 1/2) of the moon is lit up at this point. The part that is lit up is slowly getting bigger.



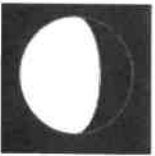
Phase 3 - First Quarter - One half of the moon is lit up by the sun at this point. The part that is lit up is slowly getting bigger.



Phase 4 - Waxing Gibbous - At this time half of the moon is lit up. The part that is lit is slowly getting bigger. Waxing means to slowly get bigger.



Phase 5 - Full Moon - The side of the moon that is lit up by the sun is facing the Earth. The entire moon is lit up at this point.



Phase 6 - Waning Gibbous - The moon is not quite lit up all the way by sunlight. The part of the moon this is lit is slowly getting smaller. Waning means to slowly get smaller.



Phase 7 - Last Quarter - Half of the moon is lit up but the sun. The part that we can see lit up is slowly getting smaller.



Phase 8 - Waning Crescent - A small part of the moon is lit up at this point. It is getting smaller by the minute.

**FUN FACT**

Did you know that a full moon can happen twice in one month? When this happens, the second full moon of the month is called a Blue Moon!

# **2nd QUARTER SECOND GRADE SCIENCE PROJECT**

## **DUE DATE: December 7, 2018**



### **EXPLORING STATES OF MATTER**

- Solids
- Liquids
- Gases

#### **Directions:**

**Part One: Create a solids, liquids, and gases trifold. Gather solids, liquids, and gases and organize them neatly on the trifold poster to represent your understanding of states of matter.**

**Part Two: Include a written description of each state of matter: What is a solid? What is a liquid? What is a gas?**

#### **ITEMS ATTACHED TO THE TRIFOLD MAY INCLUDE:**

- 3D items: toy cars, legos, containers of water, toothbrushes, etc
  - Photographs from magazines and newspapers
  - Printed images

## 3<sup>rd</sup> Grade Science Project

**Due: December 7, 2018**

For the second quarter, our third grade students will study the structure and properties of matter before and after they undergo a change. This second quarter project is designed to help students display their knowledge of third grade expectations for Science. For questions or concerns, please contact your child's teacher. Thank you for your continued support and partnership in education.

### **Project Directions:**

**\*\*Neatness Counts – 10 points.**

**\*\*Complete sentences – 10 points.**

**\*\*Create a presentation all about matter:**

Your presentation may be in ONE of the following formats:

- A PowerPoint Presentation
- A Written Report
- A Video Presentation
- A Poster Display

Digital presentations may be emailed to your child's teacher:

Destinee McNeill [destineemcneill@ccs.k12.nc.us](mailto:destineemcneill@ccs.k12.nc.us)

Samantha Burke [samanthaburke@ccs.k12.nc.us](mailto:samanthaburke@ccs.k12.nc.us)

Olivia McGrew [oliviamcgrew@ccs.k12.nc.us](mailto:oliviamcgrew@ccs.k12.nc.us)

**\*\* The content of your presentation should include the following:**

- The difference between Mass and Matter? – **10 points**
- The properties of Solids, Liquids, and Gases – **30 points**
- 3 examples of each state of matter. – **30 points**
- Changes that occur when heat is applied to a solid, liquid or gas. – **10 points**

## 4<sup>th</sup> Grade Science Project

### Adopt a Pet Rock

Due: December 7, 2018

During the second quarter we have been exploring the exciting world of rocks. We have examined the three different types of rocks and their attributes. We have learned all about the rock cycle. For this project, you will use all the knowledge you have learned so far. You will be “adopting” a pet rock. Show us your knowledge of rocks by making a creative and insightful project!

Your assignment is to:

1. Find a rock – igneous, sedimentary, or metamorphic—that you wish to “adopt.”
2. You may turn in your rock “as is,” or you may alter your rock in a number of ways to personalize it. However, at least part of the original rock’s surface must be visible.
3. When you turn in your pet rock, please also turn in a paper/poster that answers the following questions:
  - Where and when did you find this rock?
  - Why did you choose this rock?
  - What type of rock do you have? Why do you think it is this type?
  - Have you altered your rock in any way? If so, describe. Why have you done this?
  - Draw your own version of the rock cycle. Identify the three types of rocks and the attributes of each.
  - Locate your pet rock on the rock cycle.

**Your pet rock is due on. No late projects will be accepted!** Please see your classroom teacher if you have any questions regarding the project.

Ponderosa Elementary School 5<sup>th</sup> Grade Science Project  
 Project Standards, Information, and Rubric for 2018

Standards: **Water's Physical Properties, Water Cycle, and Thermal Energy: Heat Transfer**  
**Due Date: December 7, 2018**

**Project Purpose:** To give students an opportunity to demonstrate that they understand the facts about the science standards that have studied this school term: **water's physical properties, the water cycle, and thermal energy: heat transfer**, and to demonstrate the knowledge that these science standards are a part of their lives. Each 5<sup>th</sup> grade science student can choose to create the type of project they prefer.

**Projects:** (a) a model with labels and an essay that explains the model **or** (b) a tri-fold poster, **or** (c) a board game with game pieces, spinner or dice, vocabulary and, definition cards, if needed, **or** (d) a PowerPoint presentation that demonstrate the student's knowledge of all three science standards.

**Presentations** may be live or a Microsoft compatible digital presentation, like Power Point and Prezi.

**Vocabulary to be used in the project:** Matter, States of Matter, Solid, Liquid, Gas, Physical change, Water, Water vapor, Evaporation, Precipitation, Water Cycle, Transpiration, Condensation, Precipitation, Collection/Runoff, Thermal Energy, Heat Transfer, Radiation, Conduction, Convection, Expand, Contract, Conductors, Insulators

**Presentation time:** Up to 7 minutes (All materials in place.)

**Format:** Circled above in the purpose. **Presentation mode:** Live or Pre-recorded

4 points	3 points	2 points	1 points
Far beyond what is expected for the assignment: 21 - 25 vocabulary terms	Beyond what is expected for the assignment: 16 - 20 vocabulary terms	What is expected for the assignment: 15 - 10 vocabulary terms	Is incomplete for what is expected: 9 - fewer vocabulary terms
Extremely knowledgeable of standard	Knowledgeable of standard	Slightly knowledgeable of standard	Not knowledgeable of standard
No errors.	A few errors.	Many errors.	Many errors.
Presentation is exceptional  (Has all materials Speaks clearly)	Presentation is better than expected  (Has most materials, Speaks clearly)	Presentation meets expectations  Has some materials Speaks clearly	Presentation does not meet expectations  Missing materials Unclear
All standards represented well	All standards barely represented	2 standards represented	1 standard represented