

3-5 Science and Social Studies

Choose 3 activities in a row to complete your Science and Social Studies Tic Tac Toe.



<p align="center"><u>New Jersey Information Sheet</u></p> <p>Complete the New Jersey Information sheet. Use books from the library or the Internet to research the information.</p>	<p align="center"><u>Summer Stem</u></p> <p>Choose 1 of the 8 activities to complete and draw a picture of your design.</p>	<p align="center"><u>Weather Journal</u></p> <p>Keep track of the weather for a week (7days). Fill in the journal each day for the weather. Fill in cloud observation for 2 days. Record the temperature for 2 days.</p>
<p align="center"><u>Create a Colony</u></p> <p>Complete this project to create your own colony. Follow the steps and use the rubric to guide you.</p>	<p align="center"><u>Flat Rock Brook Scavenger Hunt</u></p> <p>With an adult, go to Flat Rock Brook (443 Van Nostrand Ave. Englewood) and complete the scavenger hunt. Pick up a map in the Nature Center before you begin.</p>	<p align="center"><u>Make a Rain Gauge</u></p> <p>Using supplies you can find around your house, create a rain gauge. Put it outside during a light rain storm and a heavy rain storm. Then, record your findings on the data sheet and then compare and contrast the two storms on a Venn Diagram.</p>
<p align="center"><u>Cookie Fossil Dig</u></p> <p>Complete the cookie fossil dig using a cookie and toothpick to "excavate" the fossils (chocolate chips) from the rock (cookie).</p>	<p align="center"><u>The City & State I Live in</u></p> <p>Research information on Englewood and the state of New Jersey through library books and the Internet.</p>	<p align="center"><u>Native American Shield</u></p> <p>Create a Native American Shield with symbols and décor to represent Native American culture.</p>

Name: _____

State: New Jersey

#

Where this state is located

Abbreviation



State Flag

Capitol City

Population

Nickname

Statehood Year

State Bird

State Flower

Major Industries

Governor

Climate

Attractions

Other Cool Things I've Learned



SUMMER STEM



Bug Catcher

Create a device that traps or catches bugs.

Secret Hideout

Create an indoor or outdoor fort or hideout using blankets and pieces of furniture.

Pool Party

Ask an adult to use a sharp knife to slice a foam pool noodle into 1-2 inch slices. Use toothpicks and pool noodle pieces to build a structure.

Play Day

Create a working model of a playground toy, such as a swing, slide, merry-go-round, or jungle gym.

Float Your Boat

Create a boat, raft, or floating toy that can be used in a pool.

Garden Party

Create a tool that can be used for gardening or a container that can be used as a planter.

Critter House

Using materials found in nature, create a small house for a critter or fairy.

Make Some Noise

Create a musical instrument or noise maker.

Cross off each challenge as you complete it!

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NOTE to PARENTS:

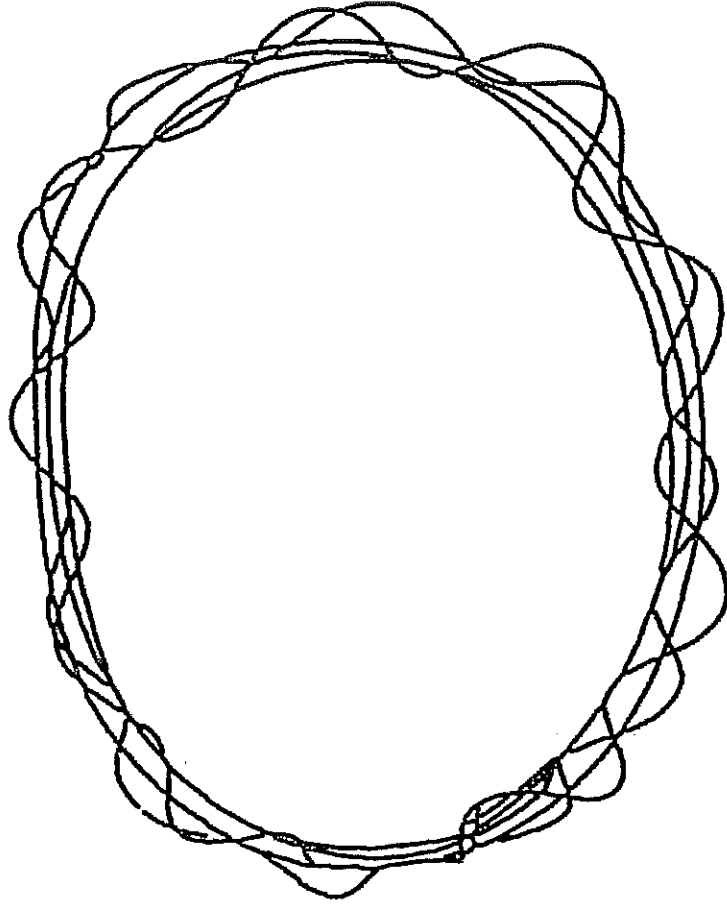
Dear Parents,

Please help your child complete this weather Log.

You can help your child by:

1. Labeling the thermometer—start at the bottom and count by 5's
2. Correct the spelling in the sentences on the weekly pages. Please do not rewrite the sentences for them.
3. Make sure your child completes the day and colors the day. We will be comparing our weather Logs and it is important your child's is accurate

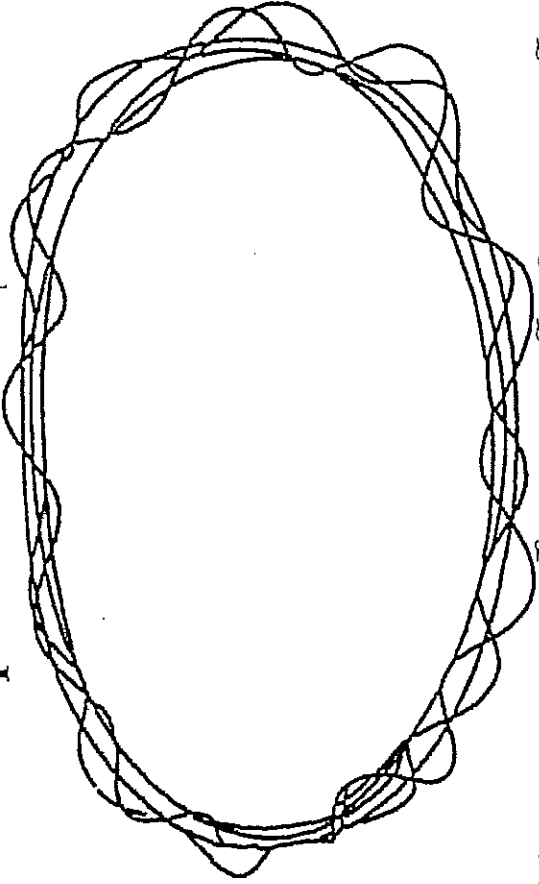
'S WEATHER JOURNAL



Monday

Date: _____

Draw a picture of today's weather.

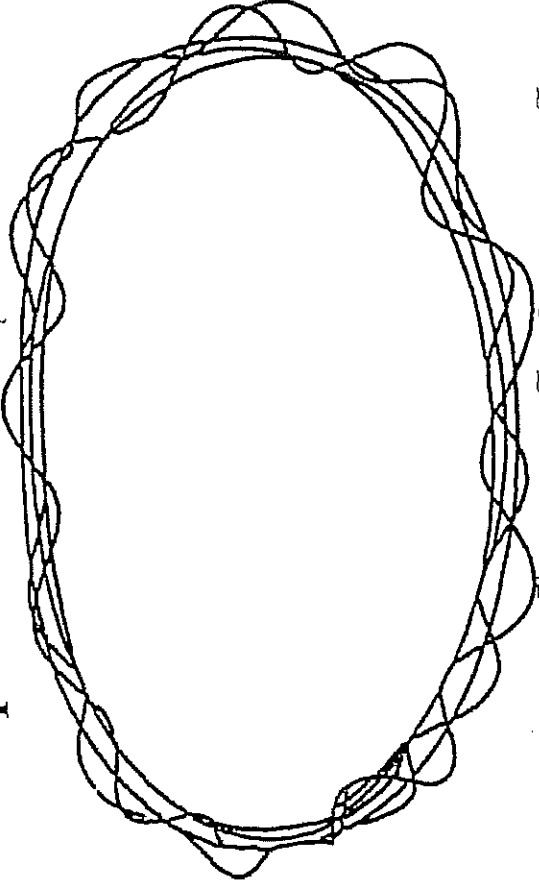


Use two weather words from today in a sentence.

Tuesday

Date: _____

Draw a picture of today's weather.

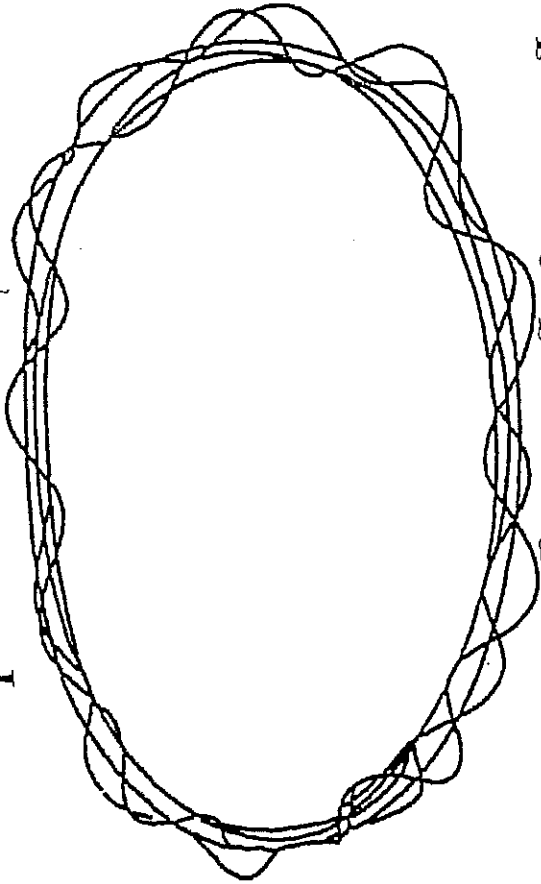


Use two weather words from today in a sentence.

Wednesday

Date: _____

Draw a picture of today's weather.

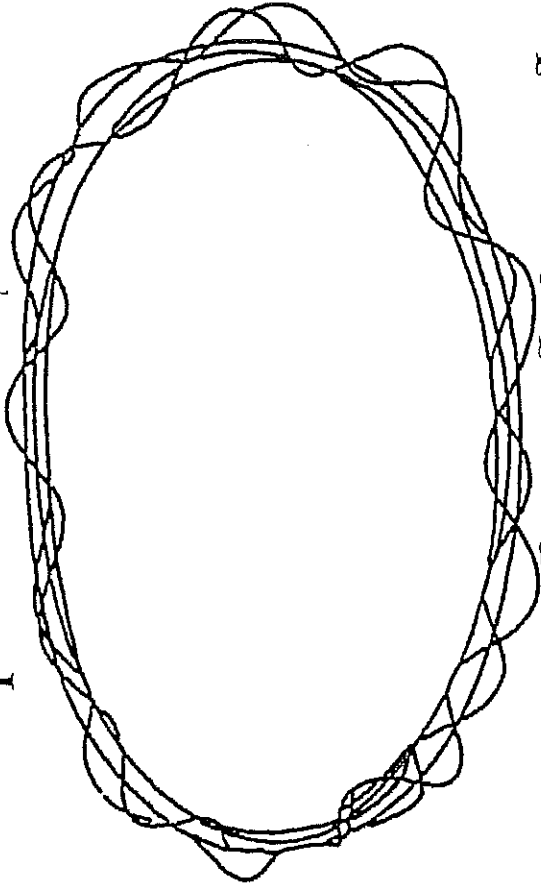


Use two weather words from today in a sentence.

Thursday

Date: _____

Draw a picture of today's weather.

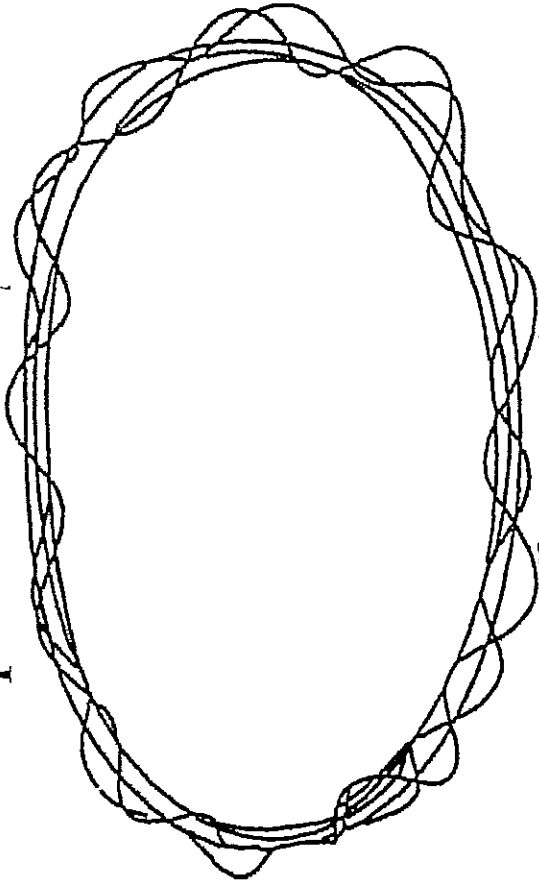


Use two weather words from today in a sentence.

Friday

Date: _____

Draw a picture of today's weather.

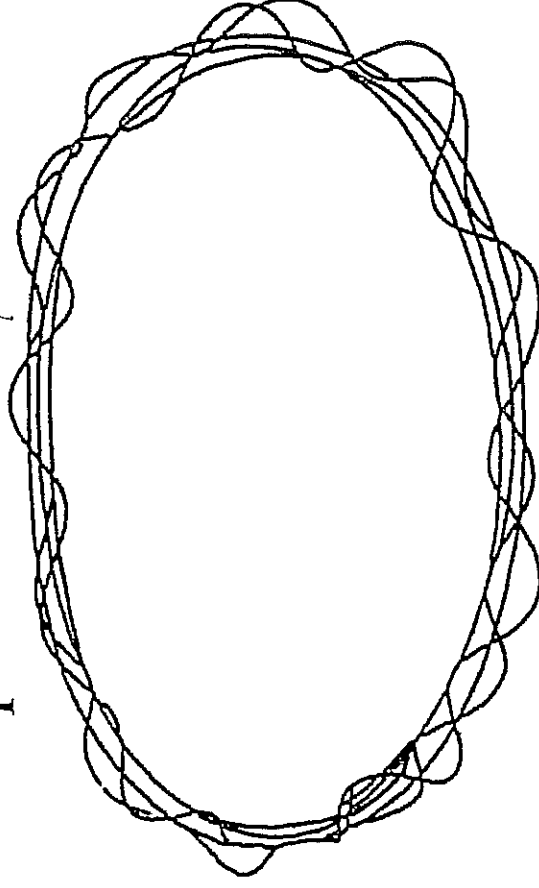


Use two weather words from today in a sentence.

Saturday

Date: _____

Draw a picture of today's weather.

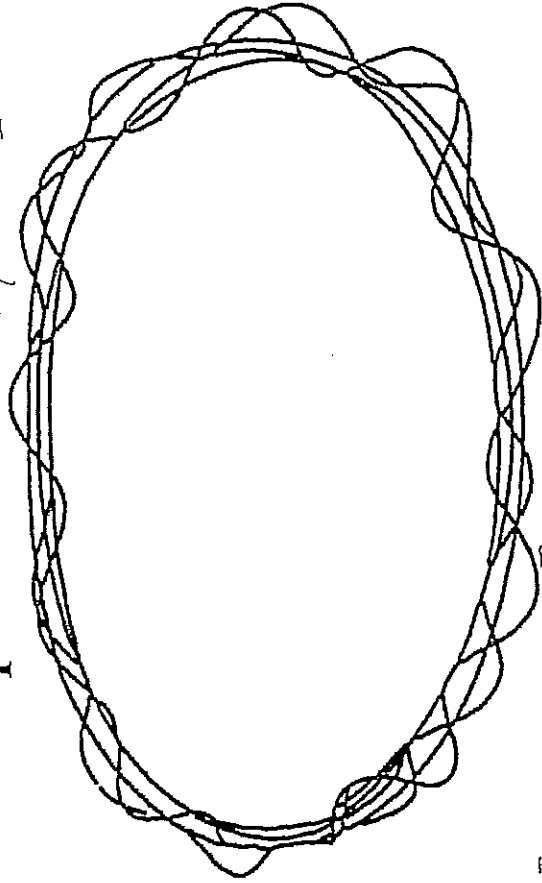


Use two weather words from today in a sentence.

Sunday

Date: _____

Draw a picture of today's weather.

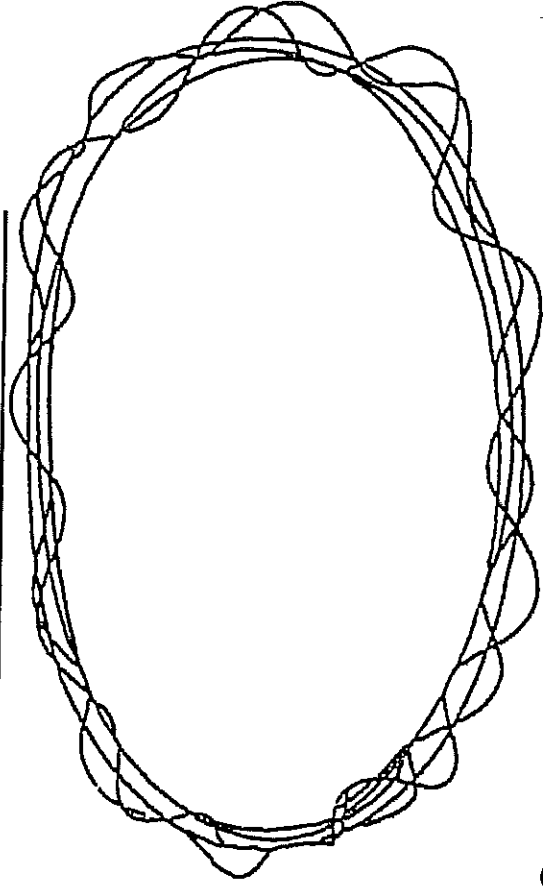


Use two weather words from today in a sentence.

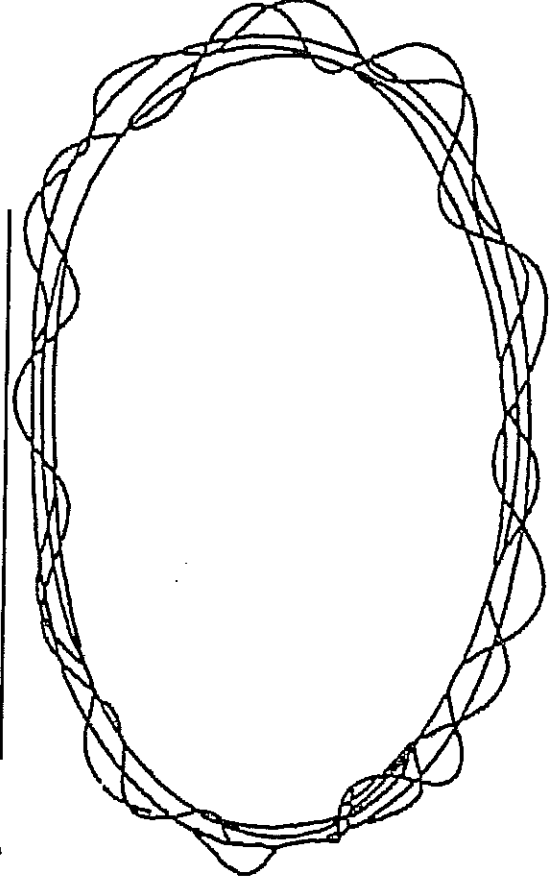
Cloud Observations

Choose two days to observe clouds. Write the date above your picture.

Date: _____



Date: _____



Create a Colony

For this project you will be asked to create your own colony. Your colony is to be created in the year 1700, 80 years after Plymouth was settled and it must be somewhere on the eastern coast of America. What you do in your new town, how you live, what you bring, etc. all must be realistic according to this time period. The rest of your requirements are below. Have fun and be creative!!

Requirements-

Draw and color a flag for your colony	5pts
Map of your town with at least 4 major buildings labeled	5pts
Explanation of where you originated from and why you left your home country	5pts
Explanation of how you interact with the natives of the area	5pts
Write about at least 3 struggles and 3 successes you have had and how you have dealt with them	5pts
What is your relationship with other colonies and why: trade, allies/enemies, conversion, money aide, etc.	5pts
Timeline describing 5 major events that occurred in the colonies over the past 100 years.	5pts
Total	___/35

Create a Colony Rubric






CATEGORY	5	4-3	2-1	0
Flag	Flag is hand drawn, colored and it is clear care has been taken to make it look presentable.	Flag is hand drawn and colored but it is somewhat messy and clear that minimal effort was used.	Flag is drawn and partly colored. Very little to no effort was used to design and color the flag	Flag is drawn but not colored and the drawing is messy with little to no effort shown.
Map	Map is hand drawn, buildings are labeled and it is clear care has been taken to make it look presentable.	Map is hand drawn and buildings are labeled, but it is somewhat messy and clear that minimal effort was used.	Map is drawn but no buildings are labeled. Very little to no effort was used.	Map is drawn but no buildings are labeled and the drawing is messy with little to no effort shown.
Origination	Information is clear, on topic, with only a few grammatical mistakes.	Information is somewhat clear, on topic, with multiple grammatical mistakes.	Information is somewhat clear, not completely on topic, with multiple grammatical mistakes.	Information is not clear or on topic, with multiple grammatical mistakes.
Dealing with Natives	Information is clear, on topic, with only a few grammatical mistakes.	Information is somewhat clear, on topic, with multiple grammatical mistakes.	Information is somewhat clear, not completely on topic, with multiple grammatical mistakes.	Information is not clear or on topic, with multiple grammatical mistakes.
Struggles and Success	Information is clear or on topic, with only a few grammatical mistakes. 3 struggles and 3 successes are discussed.	Information is somewhat clear, on topic, with multiple grammatical mistakes. 3 struggles and 3 successes are discussed	Information is somewhat clear, not completely on topic, with multiple grammatical mistakes. and/or Only 1-2 struggles and 1- 2 successes are discussed.	Information is not clear or on topic, with multiple grammatical mistakes. and/or no struggles and no successes are discussed.
Relationships	Information is clear, on topic, with only a few grammatical mistakes	Information is somewhat clear, on topic, with multiple grammatical mistakes.	Information is somewhat clear, not completely on topic, with multiple grammatical mistakes	Information is not clear or on topic, with multiple grammatical mistakes
Timeline	5 events are described. Timeline is neat and presentable.	5 events are described. Timeline is somewhat messy but presentable.	3-4 events are described. Timeline is somewhat messy but presentable.	1-2 events are described. and/or Timeline is messy and not presentable.

Pick up
a map in
the Nature Center

Flat Rock Brook

Family Scavenger Hunt!

You've accepted the challenge, now see if you can find all the answers! Each question can be answered by exploring different areas on our grounds and in the Nature Center. The order does not matter, you can start at the beginning, the end, or somewhere in between! Refer to the map to help you find your way, and even some answers!

#	Question	Answer
1	 What trail goes across the Mystery Bridge?	
2	 How many miles of trails do we have at FRB?	
3	What watershed are we in?	
4	Name a bird that we have in the Nature Center.	
5	What are the 4 main habitats at Flat Rock Brook?	
6	What year did the Nature Center building open?	
7	What bird of prey is in the first enclosure (right side when facing the aviary) of our aviary?	
8	Who is the garden in front of the building dedicated to?	
9	What color are the letters on the gazebo?	
10	 Name a benefit of a "riparian zone."	
11	 What can you see if you look up through the lightning tree (tree with a large hole in it)?	
12	 What year did the "backyard habitat" garden win an award?	
13	What don't we allow on the trails?	
14	How many islands are in the pond?	
15	What did the edge of the pond used to be?	

Key

Purple boxes: Find the answers in the Nature Center (# 3-6)

Green boxes: Find the answers outside (# 7-15)

Map symbol: Refer to map to help you find the answer, or location of the answer





Make a Rain Gauge

Have you ever wondered how much rain is really falling when you watch a heavy or a light rain shower? Make your own rain gauge to find out and compare the two!

What you'll need:

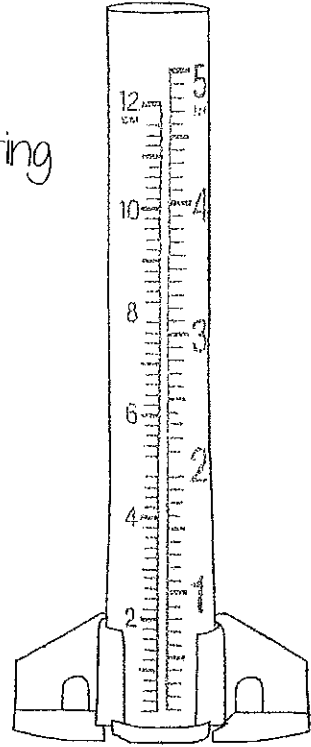
- A plastic soda bottle
- Small stones or small marbles
- Tape
- Marker
- A ruler

Directions:

1. Cut off the top of the bottle.
2. Place a handful of stones in the bottom of the bottle.
3. Turn the top upside down and place in inside the bottle opening (on the top:) tape it to the bottle.
4. Use a ruler and marker to measure a scale on the bottle (inches. or centimeters.)
5. Pour water into the bottle until it reaches 1 inch on the scale. This will create a base level measurement and will stabilize the rain gauge.
6. Place your rain gauge outside, where it can collect water when it starts raining.
7. After a rain shower is over, check to see how far up the scale the water has risen.
8. Keep track of the length of the rain storm to determine a rate.

Rain Gauge:

A weather tool used for collecting and measuring the amount of rain, or liquid precipitation, that falls during a period of time.



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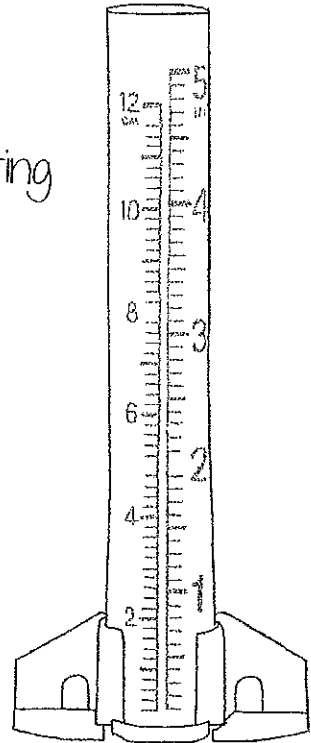
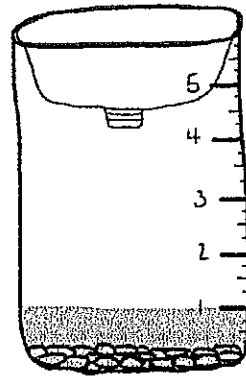


Diagram:

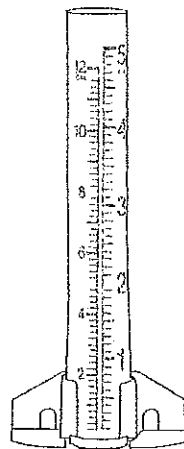


How it Works:

Rain will slowly fall through the top part of the gauge into the bottom. There it can be measured easily. Make sure to subtract the 1-inch baseline measurement from the accumulated rain collection.

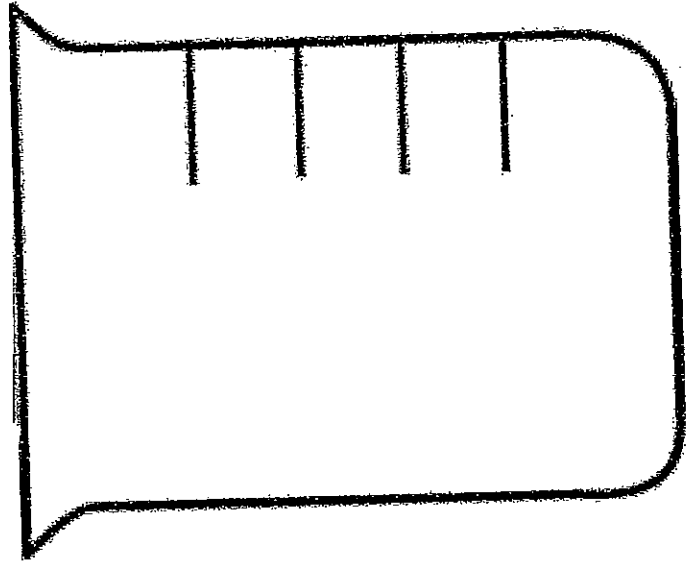
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Name: _____

Light Rain Storm



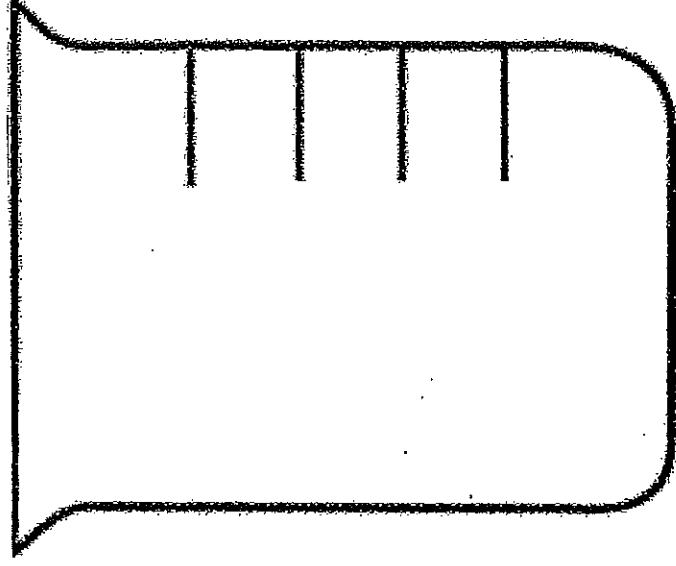
4 inches

3 inches

2 inches

1 inch

Heavy Rain Storm



4 inches

3 inches

2 inches

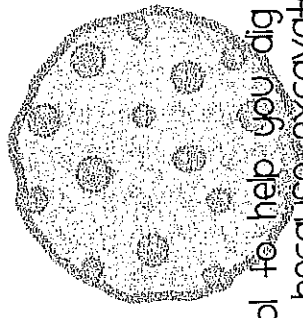
1 inch

**Observe your rain gauge and color your findings.

*The "rock" is a chocolate chip cookie.
*Your "excavation tool" is a toothpick.

Paleontologist Name: _____

COOKIE FOSSIL DIG



your mission: to excavate the fossils from the rock. you may use your excavation tool to help you dig up your fossils. the challenge is that you must leave the rock in one place the entire time because excavators can't move giant rocks around in real life! make sure that you do not eat your fossil! { record your observations below }

1. At the dig site, paleontologists must record everything they see. Your first step is to draw exactly what your fossil looks like.

2. Time yourself as you dig. Every 5 minutes, write about and draw your progress on the next page.

IS EXCAVATING FOSSILS EASIER OR HARDER THAN YOU THOUGHT IT WOULD BE?

{easier}

{harder}

3. Think about what it might be like to be a paleontologist. Record your thoughts below.



MY OBSERVATIONS



first 5 minutes	second 5 minutes	third 5 minutes	fourth 5 minutes
<p>Notes:</p> <p>[Faint, illegible text]</p>	<p>Notes:</p> <p>[Faint, illegible text]</p>	<p>Notes:</p> <p>[Faint, illegible text]</p>	<p>Notes:</p> <p>[Faint, illegible text]</p>
<p>Picture:</p> <p>[Blank space for drawing]</p>	<p>Picture:</p> <p>[Blank space for drawing]</p>	<p>Picture:</p> <p>[Blank space for drawing]</p>	<p>Picture:</p> <p>[Blank space for drawing]</p>



The City I Live In

You may want to consult a parent, friend or a teacher when doing research necessary to complete this worksheet. Your local library will also have books on local history, almanacs, and encyclopedias.

The city I live in

1. The name of my city is _____
2. The Mayor of my city is _____
3. The school I attend is _____
4. My city has a lot of _____
5. The best place for you to visit in my city is _____
6. I think my city is great because _____
7. I think the prettiest place in my city is _____
8. The postal zip code of my city is _____
9. The phone area code where I live is _____

















The state I live in

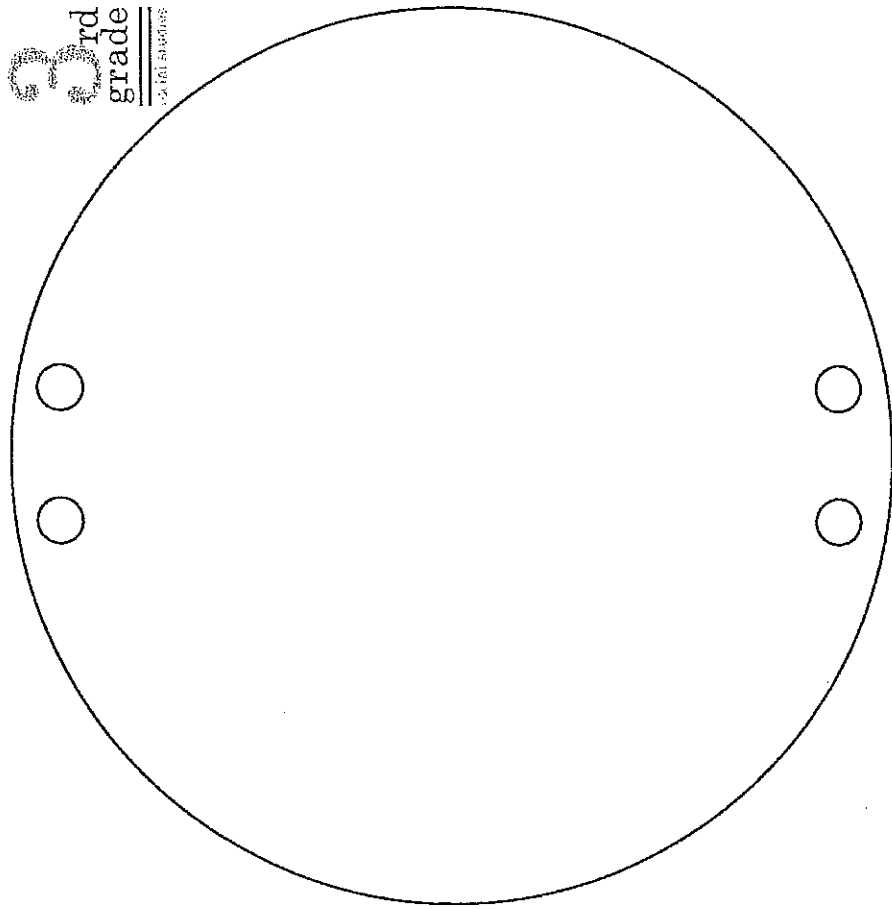
10. I live in the state of _____
11. The capital of my state is _____
12. The Governor of my state is _____
13. The colors of my state flag are _____
14. The abbreviation for my state is _____
15. My state is called the _____
16. A famous person from my state is _____
17. The state bird is _____
18. The state flower is _____
19. The state tree is _____
20. My state is famous for _____

Native American Shields

Native American shields served both functional and ceremonial purposes. Made from rawhide taken from a buffalo, layers were sewn together and heated until they shrank, then covered with a third layer of soft buckskin painted with symbols. Native Americans believed that the symbols protected warriors in battle, and that revelations from dreams or visions possessed magical qualities.

Some traditional shield symbols and symbolic colors are as follows:

- | | | | |
|---|---|---|--|
|  | Thunderbird—the sacred power of thunder and the greatest spirit of all; |  | Blue border—Grandmother Earth, who, according to legend, gave the Indians corn and the buffalo; |
|  | Crescent shape—the moon; |  | Red—courage, supernatural blessing; |
|  | Sun Rays—sun rays constancy; |  | White—purity; |
|  | Snake-Rain Lightning-Snake-Wisdom |  | Blue—vigilance, justice; |
|  | Rain Clouds—good prospect; |  | Stars—the unity of all people; |
|  | Bear Track Power—Bear-Track Good Omen |  | Seven large dots—the Pleiades, a constellation of stars called the Seven Sisters, or the Seven Tribes; |
|  | Design—Arrow-Protection-Warding off evil, peace |  | Bells, eagle feathers, and owl feathers—the respective powers of nature, wind, flight, and earth. |
|  | Design—Rattlesnake Jaws-Strength | | |
|  | Black background—enemies defeated, or the dead coals of an extinguished campfire; | | |



To make your shield, cut out the circle above or use a paper plate. Cut out the small holes at the top and the bottom. You will thread yarn or leather through these for hanging (from the top) and for stringing beads, bells and/or feathers (from the bottom). Using crayons or color pencils, decorate your shield with some of the symbols from the list, or create your own! Add a decorative border around the outside edge (see the example at right for inspiration).

