Science Packet 1

WINTER ICE SCIENCE EXPERIMENT

Name: _____

Date: _____

Teacher: _____

Challenge:

Can you "fish" the ice out of the cup using the string? How will salt change the ice in the cup? Write down your prediction.

_____

_____

Materials:

1. Cup
2. Water
3. Ice
4. Salt
5. String

Directions:

1. Check and make sure you have all your materials.
2. Fill a cup with water and three ice cubes.
3. Place the string in the water across the top of the ice cubes. Leave the string sitting on top of the ice cubes.
4. Sprinkle some salt into the cup across the ice cubes and string.
5. Wait one minute by counting to 60.
6. Slowly pull the string out. Some people are able to "fish" the ice cubes out with the string. If this didn't work for you, make a change and try again. Try using more salt in Step 4 or counting to a higher number in Step 5.

Reflection:

Explain what happened during this experiment and why.

_____

_____

_____

_____

_____

_____

_____

_____

Science Information:

The temperature of 32 degree Fahrenheit (°F) is the freezing point of water. When the temperature is 32°F or colder, water freezes and becomes ice. When the temperature is 32°F or warmer, ice melts and becomes water. An ice cube is about 32°F. When salt is sprinkled on ice, it changes its freezing point to temperature colder than 32°F. This causes the ice to melt.

Science Packet 1

WINTER ICE SCIENCE EXPERIMENT

[redacted]

Thank you for downloading my product!

Follow me on...

SCIENCE WITH LESS STUFF

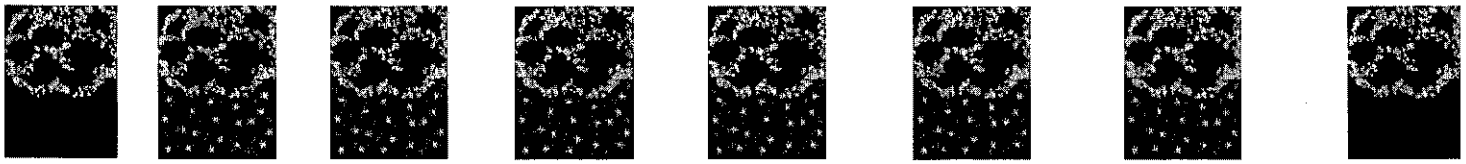
Experiments with 5 materials or less...

Materials:

1. **Cup**
2. **Water**
3. **Ice**
4. **Salt**
5. **String**

MRS. HARRIS TEACHES SCIENCE

Science Packet 2



A Day of Snow!

*Fill in the lines with descriptive words. Use the words in parenthesis to help you write a sensory word. A metaphor is when you compare one thing to another. *

Today the weatherman said chance of snow, but how do I know?

I wake to find it cold as _____(touch-metaphor)

Patiently waiting until I feel the first _____(touch)

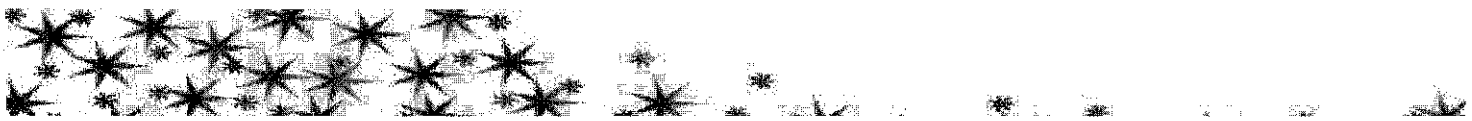
While walking home I stop to hear _____(sound)

Then I saw the _____(sight)

As it floated to my outstretched tongue I thought, "This tastes like _____!" (taste)

How odd it seems to be. It took condensation to make a cloud that brought this wet, tasty precipitation to me.

Oh please, oh please, sun in the sky, hide for a while so this treat will collect while I wait inside.
I cannot build a wonderful snowman with melting heat.
But with evaporation, soon after there will be condensation.
Then, once again, wonderful snow we may meet.



Science Packet 2

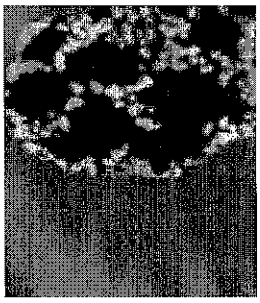
SHOW SNOW WHAT YOU KNOW!

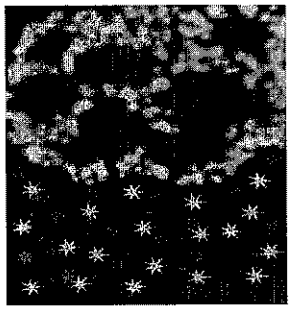
1. Water Cycle Mix Up! These water cycle words were mixed up in the snowstorm. Write the correct Water Cycle word above each picture:

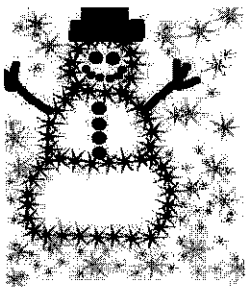
Condensation Collection Precipitation Evaporation

2. Water Keeps Moving! Draw 1 arrow (4 arrows total) between each box that shows how water moves from one part of the cycle to the next. The first arrow has been drawn for you.

3. On another sheet of paper answer the questions. Make sure you answer in complete sentences. What do we need from the water cycle to make snow and why? Which part of the water cycle takes the snow away?







Science Packet 3

Name: _____

Nature in Winter

Sink or Float?

Winter Object	Prediction CIRCLE YOUR ANSWER	Result CIRCLE YOUR ANSWER
	sink / float	**sink / float**
	sink / float	**sink / float**
	sink / float	**sink / float**
	sink / float	**sink / float**

Science Packet 3

Cut & Paste Winter object labels (optional)

Cut & paste one of the following labels into the "Winter Object" column

pine needle	pinecone	bark
ice/snow	rock	twig
holly	berry	feather

Teacher Instructions:

Instruct students to select 4 winter objects they would like to use in their sink/float experiment. Talk about making predictions based on their knowledge of why things float. Allow time for students to select their objects, and make a prediction for each.

Have a large bowl or bin filled with water so the various objects can be tested. Allow time for students to write what actually did happen (sink or float) and circle their answer. Students can then analyze their data and see how many they predicted correctly.

Little Learning Lane

Created by Natalie at www.littlelearninglane.com
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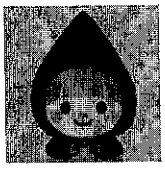

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Science Packet 4

How Do Snowflakes Form?

Have you ever wondered how snowflakes form? It all starts when water from the earth's surface evaporates, or turns from a liquid to a gas. This gas, or vapor, condenses into tiny droplets of water. Cold air freezes these water droplets and turns them into ice crystals. Water vapor continues to collect on the ice crystals making them larger and heavier. Eventually, the ice crystals fall from the sky leaving the clouds they once helped form. As the ice crystals fall, they pick up more water vapor and continue to get larger. Sometimes ice crystals come into contact with warmer air as they fall closer to the earth. The warm air causes the crystals to melt a little. This melting acts like glue, making it easier for ice crystals to stick together and form a snowflake. Once on the ground, snowflakes will stay frozen only if the temperature is cold enough. When the snow melts and becomes water, the cycle begins all over again.

Science Packet 4

Name _____

Directions: Write a word from the word bank on each line below. Choose the word that best completes each sentence.

WORD BANK: __cold, __crystals, __freezes, __evaporates, __clouds, __gas, __melt, __snowflake, __cycle, __water

How Do Snowflakes Form?

Have you ever wondered how snowflakes form? It all starts when water from the earth's surface 1)_____, or turns from a liquid to a gas. This 2)_____, or vapor, condenses into tiny droplets of water. Cold air 3)_____ these water droplets and turns them into ice crystals. Water vapor continues to collect on the ice crystals making them larger and heavier. Eventually, the ice crystals fall from the sky leaving the 4)_____ they once helped form. As the ice crystals fall, they pick up more 5)_____ vapor and continue to get larger. Sometimes ice crystals come into contact with warmer air as they fall closer to the earth. The warm air causes the crystals to 6)_____ a little. This melting acts like glue, making it easier for ice 7)_____ to stick together and form a 8)_____. Once on the ground, snowflakes will stay frozen only if the temperature is 9)_____ enough. When the snow melts and becomes water, the 10)_____ begins all over again.

Science Packet 5

How Do Snowflakes Form?

Have you ever wondered how snowflakes form? It all starts when water from the earth's surface evaporates, or turns from a liquid to a gas. This gas, or vapor, condenses into tiny droplets of water. Cold air freezes these water droplets and turns them into ice crystals. Water vapor continues to collect on the ice crystals making them larger and heavier. Eventually, the ice crystals fall from the sky leaving the clouds they once helped form. As the ice crystals fall, they pick up more water vapor and continue to get larger. Sometimes ice crystals come into contact with warmer air as they fall closer to the earth. The warm air causes the crystals to melt a little. This melting acts like glue, making it easier for ice crystals to stick together and form a snowflake. Once on the ground, snowflakes will stay frozen only if the temperature is cold enough. When the snow melts and becomes water, the cycle begins all over again.

Science Packet 5

Name _____

Directions: Reread the selection. Cut out each circle below. Lay the circles out in the correct sequence. Paste the circles onto the "Snowflake Timeline" in the correct order. The first and last steps are already in the correct place on the timeline.

ice crystals come into contact with warmer air

ice crystals pick up more water vapor

ice crystals stick together and form a snowflake

cold air turns the water droplets into ice crystals

ice crystals fall from the sky

vapor condenses into tiny droplets of water

the crystals melt a little

water vapor collects on the ice crystals

Science Packet 5

Name _____

Snowflake Timeline