

Nature through the Seasons Activity Packet



Minnesota Valley National Wildlife Refuge

Grade Levels: K-2

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 - Virtual Field Trip: Spring at the Wildlife Refuge <https://youtu.be/OD0KtUdtahA>
 - Seasonal Mystery Boxes Activity <https://youtu.be/cqbrV16Lk-Q>
 - Story-time: Reading of 'Sky Tree' by Thomas Locker <https://youtu.be/gxJA3l-D5Ao>



Nature through the Seasons

Making a Nature Journal



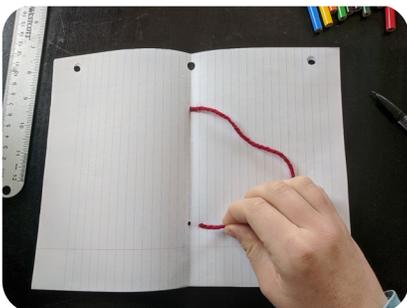
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Gather these materials:

- at least 3 pieces of 8.5 x 11 inch paper (printer paper size)
- ruler
- string, twine, ribbon, or a strip of fabric
- pencil, colored pencils, crayons
- scissors

Making your nature journal

- Make your pages by folding your paper in half, hamburger style.
- Measure 2 inches down from the top of your folded pages with your ruler along the left edge (the spine) and draw a small half circle with your pencil. Repeat from the bottom left edge of the pages. Use the scissors to carefully cut out your half circles.
- Measure 12 inches of your string with your ruler, using your scissors to cut the piece.

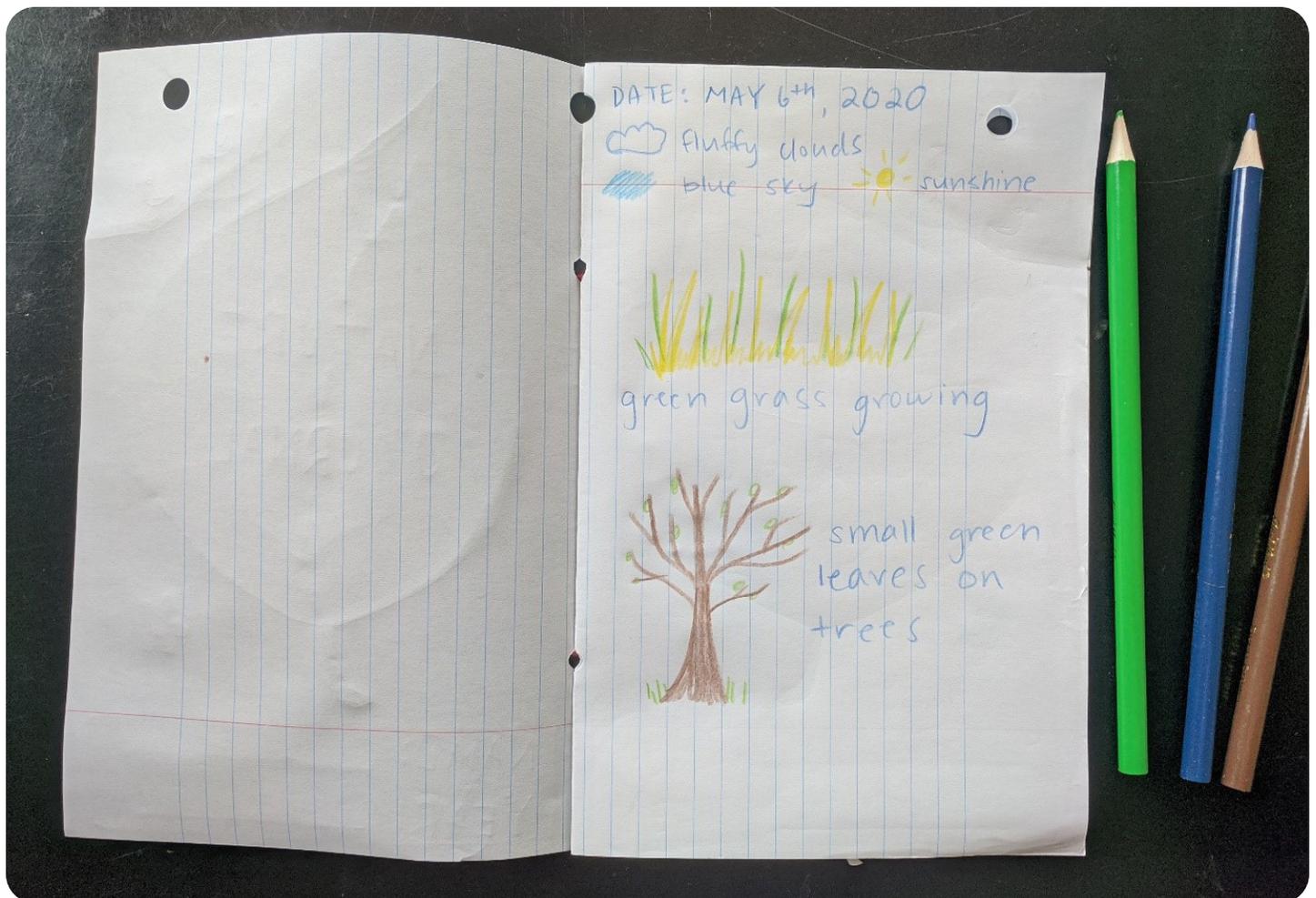


- Bind your journal by opening your pages from the middle so you can see the two holes that you cut out. Thread one end of your string through the top hole from the inside, and the other end of your string through the bottom hole from the inside. Fold your pages closed and tie the ends of the string together on the outside of the spine in a bow or a knot.
- Decorate your journal with your coloring materials, stamps, dried leaves, or anything you want. Be sure to write your name, the year, and 'Nature Journal' on the cover.

Making a Nature Journal, continued from page 2

Using your nature journal:

- Record what you notice outside in your journal to keep track of nature.
- Write the date on the page. You may also want to write the time of day.
- Try recording the weather! Describe what the sky looks like outside, and if it feels hot or cool. Does it feel like it may rain? Try to use color and feeling words, like 'blue, gray, fluffy clouds, sticky air'.
- Draw or write what you see. You can record anything that you see by drawing, or by writing. Even better, you can use both words and drawing to keep track of what is happening outside.



Nature through the Seasons

Writing a Poem for the Season



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Gather these materials:

- pencil, colored pencil, markers, or crayons (any writing utensil)
- paper (or anything else to write on)

Writing a Poem

Poetry uses language to allow the reader to feel, hear, or imagine seeing what the writer is describing. Use descriptive words and try to include colors, textures, temperatures, sound, or other details to help readers connect with your poem. Poetry comes in many shapes and forms. It can look however you want it to be (free form), or it can follow a format like an Acrostic Poem or a Haiku.

Seasonal Acrostic Poem:

Choose a month and use each letter from the name of that month as the start for each line. Try to think of an animal, plant, or weather sign from the season your chosen month belongs in to use for each line.

Here is an example for **April**:

American Robins return to sing
Purple crocus flowers bloom
Rain comes and goes again
I ride my bike outside
Longer days with yellow sun



Writing a Poem for the Season, continued from page 4

Haiku:

A Haiku is a short form of Japanese poetry with 17 syllables: a line of 5 syllables, a line of 7 syllables, and a line of 5 syllables, often describing nature. To help decide how many syllables are in a word, speak it slowly and clap or count on your fingers the parts of the word. For example, tree has one syllable, flower has two syllables, thunderstorm has three syllables. A Haiku does not need to rhyme, but it can if you want it to.

Here is an example Haiku:

birds in the tree sing
bright songs of springtime sunshine
the flowers listen

Decorate your Poem

Color your poem and add drawings to make a nature-themed sketch that could be sent as a card to someone you are thinking of!



Nature through the Seasons

Wind Speed Measurement Activity



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Gather these materials:

- Bubbles
- Modified Beaufort Wind Scale (in this guide)

Measuring the wind

Wind is air in motion. Air moves from high pressure to low pressure. The greater the difference in pressure, the faster the air flows.

Begin pressing your hands together hard, as if you were trying to flatten a ball between them- this is high pressure. Now, stop pushing your hands against each other and let them gently rest one on top of the other. How does this feel? This is an example of low pressure.

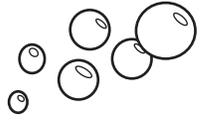
You can measure the speed of the wind - which can go faster than humans can run! Use the **Modified Beaufort Wind Scale** included in this guide to observe the weather outside and follow the scale, starting at A, to find out how fast the wind is moving in miles per hour.

Estimating Wind Speed

Modified Beaufort Scale*

Start at A, then work through each letter until you find which is true for the wind you are measuring. Measure wind speed at 10-15 feet off the ground.

A. Bubbles Drift



If true go to B.

If false, wind speed = 0 mph

B. Flag moving, needles and leaves rustling.



If true go to C.

If false, wind speed = 1-3 mph

C. Flag fully extended, needles, leaves and small twigs constantly in motion.

If true go to D.

If false, wind speed = 4-7 mph

D. Small branches move

If true go to E.

If false, wind speed = 8-12 mph

E. Small trees sway.

If true go to F.

If false, wind speed = 13-18 mph

F. Large branches in motion.

If true go to G.

If false, wind speed = 19-24 mph

G. Whole trees in motion. It is hard to walk into the wind.



If true go to H.

If false, wind speed = 25-31 mph

H. Twigs break off.

If true go to I.

If false, wind speed = 32-38 mph

I. Shingles fly off roof.

If true go to J.

If false, wind speed = 39-46

J. Wind speed = 47-54 mph

*Adapted with permission from Wolf Ridge Environmental Learning Center

Nature through the Seasons

Wind Speed Measurement Activity

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Gather these materials:

- Cloud Identification Guide, (in this guide)

What Kind of Cloud is that?

Did you know that the shape of clouds can tell us about the weather conditions? If a cloud looks like a turtle, that may not tell us much on it's own, but if there are many puffy turtle-shaped clouds filling the sky, it might be a stratocumulus cloud, which are indicators of a change in the weather (either an incoming warm or cold front).

Use the Cloud Identification Guide to observe clouds in the sky and compare them with your hand to determine what kind of cloud they are.

What do the clouds you see today tell you about the weather?

Cloud Identification Guide

A Dichotomous Key by Dr. Tina Cartwright, WV State Climatologist

Choose a cloud. Look carefully at your cloud, then answer the questions below and follow the instructions.

1. Is it raining?

No- Go to number 2

Yes- with thunder, lighting and heavy rain. Your cloud is a ***cumulonimbus***

Yes- but only drizzly, with small raindrops. Your cloud is a ***nimbostratus***.



Cumulonimbus cloud by UCAR, Creative Commons

2. Is it a high wispy cloud, like a horse's tail?

No- Go to number 3

Yes- your cloud is a ***cirrus***.



Cirrus clouds by oatsy40, Creative Commons

3. Is it flat & layered, puffy & bumpy, or some of both?

Flat and layered- go to number 4

Puffy and bumpy- go to number 5

Both- If your cloud is a nearly solid layer of large puffs (the size of your fist or larger), your cloud is a ***stratocumulus***.



Stratocumulus clouds by Nicholas A Tonelli, Creative Commons

Cloud Identification Guide

4. Determine how high and how thick your flat layered cloud is.

If your cloud is high, thin and the sun is shining casting distinct shadows, it is a ***cirrostratus***.

If it is thicker, the sun is dimmer, and there are hardly any shadows, it is an ***altostratus***.

If it is a low cloud, so low it's hard to see the bottom and it covers most of the sky, it is a ***stratus***.



Cirrostratus clouds by sgtgary, Creative Commons



Altostratus clouds by Lance Andrewes, Creative Commons



Stratus clouds by Frans de Wit, Creative Commons

5. Hold your hand up toward your cloud. Look at the size of the puffs. Compare them to your hand.

If the puffs are the size of your fingernail (very small), your cloud is a ***cirrocumulus***.

If the puffs are the size of your thumb (medium-sized), your cloud is an ***altocumulus***.

If the puffs are the size of your fist (large), your cloud is a ***cumulus***.



Cirrocumulus clouds by Bryce Bradford, Creative Commons



Altocumulus clouds by Alana Sise, Creative Commons

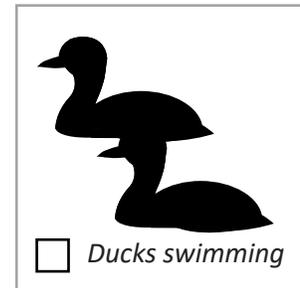
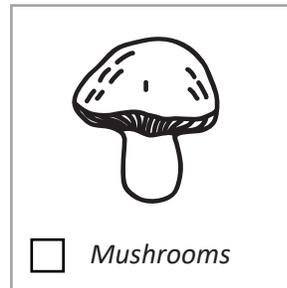
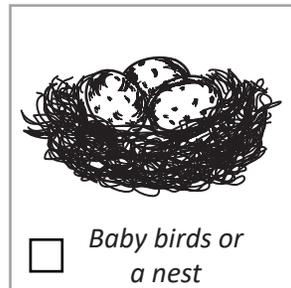
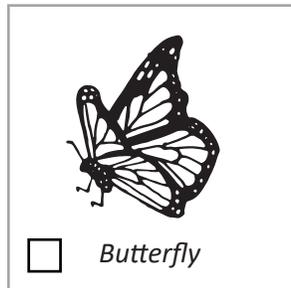
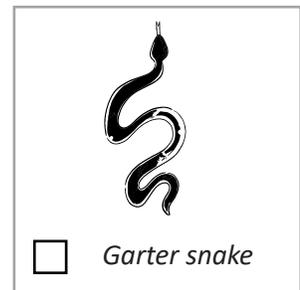
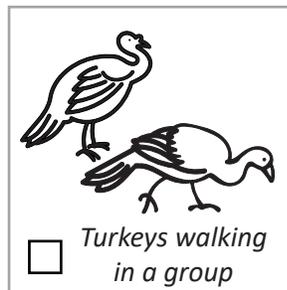
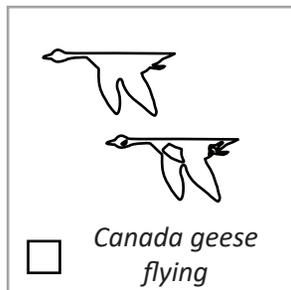
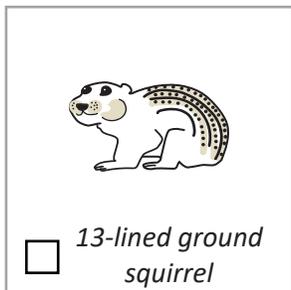
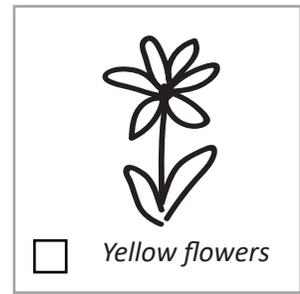
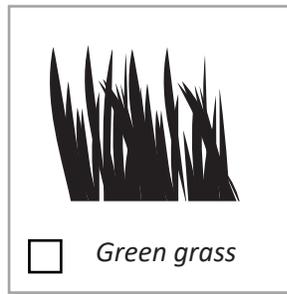
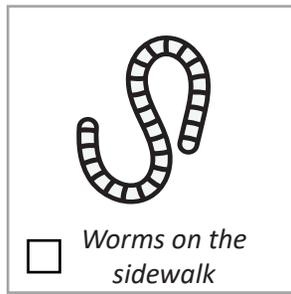
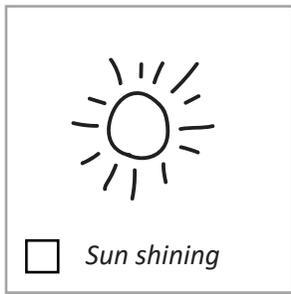
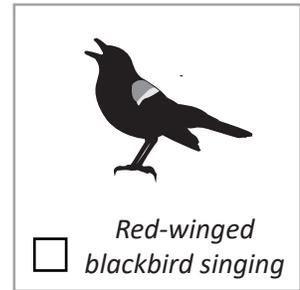
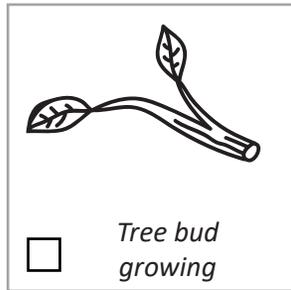
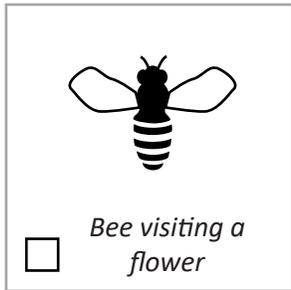


Cumulus clouds by Astrid Westvang, Creative Commons

Spring Phenology Scavenger Hunt

Date: _____

Check the box when you find an item below



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