



Wild for Water

Grades 3 - 5

*This lesson is written to be completed independently
and is recommended for children in grades 3-5.*

In this Lesson Plan, tweens will learn about the water cycle and Missouri waterways by listening and reading books, exploring databases, inventing something, and more! This Lesson can be simplified or made more complicated as desired.

This lesson contains activities that have been connected to Missouri Learning Standards using the Missouri Department of Elementary and Secondary Education (DESE) guidelines. Although these lessons have been connected to a state learning standard, they are not intended to replace the educational curriculum provided through public, private, or at-home learning.

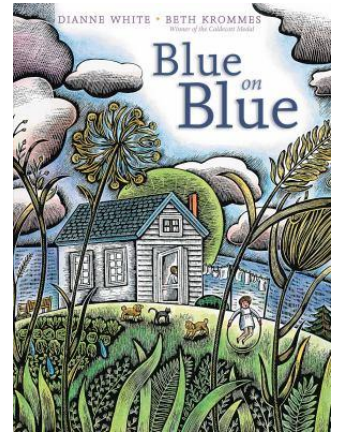
To access videos and databases, click on the hyperlinked text in the lesson plan. An active Christian County Library card is necessary to access select activities. For help, email youthservices@christiancountylibrary.org or call your local community branch.

1. Introduction

- a. In this lesson you will learn about the water cycle and about major Missouri waterways.
- b. Make sure to have the documents and handouts ready for the lesson and gather any needed supplies.
- c. Use Handout A to record the weather each day for a week.
- d. Using Handout B, create a bar graph representing the daily temperature for the week
 - i. DESE Standard: Science 3.ESS2.D.1 Weather and Climate
 - ii. DESE Standard: Math 3.DS.A.1 Data and Statistics
- e. Use Handout C to find the average temperature for the week and record your conclusions on the weather season.
 - i. DESE Standard: Math 3.DS.A.2 Data and Statistics

2. Listen & Write

- a. Listen to a library staff member read “Blue on Blue” by Dianne White:
<https://www.youtube.com/watch?v=mw5GogAugYo>
 - i. On your own piece of paper summarize the beginning, middle and end of the story. What do the characters learn during the course of the story? What is the main idea of the story?
 - ii. DESE Standard: English 1A.Gr3.c Reading



3. Art & Imagination

- a. Use Explora to learn more about the water cycle! Go to christiancountylibrary.org , click on research. Scroll down to “Explora Elementary” and click on the link. Search for the word “water cycle”. Look through the books and articles to learn the different parts of the water cycle. *(If you don't have access to the internet, check out a book about the water cycle from your library to do your research instead.)*
- b. Craft prompt: Create your own Diagram of the water cycle using at least 3 different materials or tools of your choice. Examples: crayons, marker, paint, newspaper, construction paper, magazines, etc.

- i. DESE Standard: VA:Cr2A.4 Skill Acquisition
- c. Additional craft prompt: Using at least 3 different materials or tools, create a 3D rainbow craft. For inspiration examples please see Handout D of the Lesson Plan packet.
 - i. DESE Standard: VA:Cr2A.4 Skill Acquisition

4. STEAM Activity

- a. After completing your own diagram of the water cycle in the above activity you can now make your own science experiment to observe the different parts of the water cycle by creating a water cycle in a bag.
 - i. To create the water cycle in a bag you will need a plastic sandwich bag, a marker, masking tape and water.
 - ii. Follow the instructions on Handout E to make your own Water Cycle in a Bag. Observe the bag throughout the day (for several days) to see how the water moves.
 - iii. Need more help? Check out this link to Mobile Ed. Productions for a step by step guide with pictures on how to create your Water Cycle in a Bag:
<https://www.mobileedproductions.com/blog/how-to-make-a-water-cycle-in-a-bag>
 - 1. DESE Standard: Science 3.PS1.A.1 Structures and Properties of Matter

5. Geography

- a. Use Explora to learn more about Missouri! Go to christiancountylibrary.org , click on research. Scroll down to “Explora Elementary” and click on the link. Search for the word “Missouri”. Look through the books, articles, and videos to answer the questions on Handout F. *(If you don’t have access to the internet, check out a book about Missouri from your library to do your research instead.)*
- b. Activity: Using Handout G label the border states, cities, and regions. Draw in the Mississippi



and Missouri Rivers and color in the Map of Missouri.

- i. DESE Standard: Social Studies 5.B.3

6. Music

- a. Watch “The Itsy Bitsy Spider” on tumblebooks.
 - i. Go to <https://christiancountylibrary.org/research> . Scroll down to Tumblebooks. Once you are on tumblebooks click “tumblesearch” in the top right hand corner. Type the word *itsy* in the “search by title” box. Click on “Play Video” to have the story read to you. (*If you don't have access to the internet, check out a book about children's songs and rhymes from your library instead.*)
 - ii. Sing the Itsy, Bitsy Spider at different speeds. Does the meaning or tone of the song change as you sing it faster and slower? Can you improvise a drum and beat out each syllable? (ex. *Its-y, bit-sy spi-der*)
 1. DESE Standard: Fine Arts: Music Pr4C.3a Select, analyze, and interpret artistic work for presentation

7. Additional Activity

- a. Activity: Create a Water Gauge
 - i. Create your own rain gauge to measure how much precipitation falls when it rains. You will need a clear container (like an empty 2 liter bottle), scissors, tape, a ruler, markers, and water.
 - ii. Follow the instructions on Handout H to create your own Rain Gauge and then set your rain gauge outside to measure the rain.
 1. To watch a video of How to Make a Rain Gauge check out this link to NBC Connecticut's youtube page:
<https://www.youtube.com/watch?v=jwo2XGBABpY>

➤ Explore more! Here are some optional links for more learning and fun!

- If you enjoyed this lesson go to christiancountylibrary.org to check out our other Lessons with the Library.
<https://christiancountylibrary.org/lessons/>

- PBSKids page for Earth and Space Science. Look at the Earth's Hydrosphere section and click on the Water Cycle to see cool weather videos!

<https://optv.pbslearningmedia.org/subjects/science/earth-and-space-science/>

➤ **Learning Standard**

- a. The learning standards attached to each activity can be found at the following links:

- i. [Missouri Learning Standards/Missouri Department of Elementary and Secondary Education \(DESE\)](#)

THE WEEK IN WEATHER

Weather Log

Observe the weather each day and record the data. Ask yourself: What color is the sky? What is the temperature? What kinds of clothes would I need to wear to go outside?

sunday

monday

tuesday

wednesday

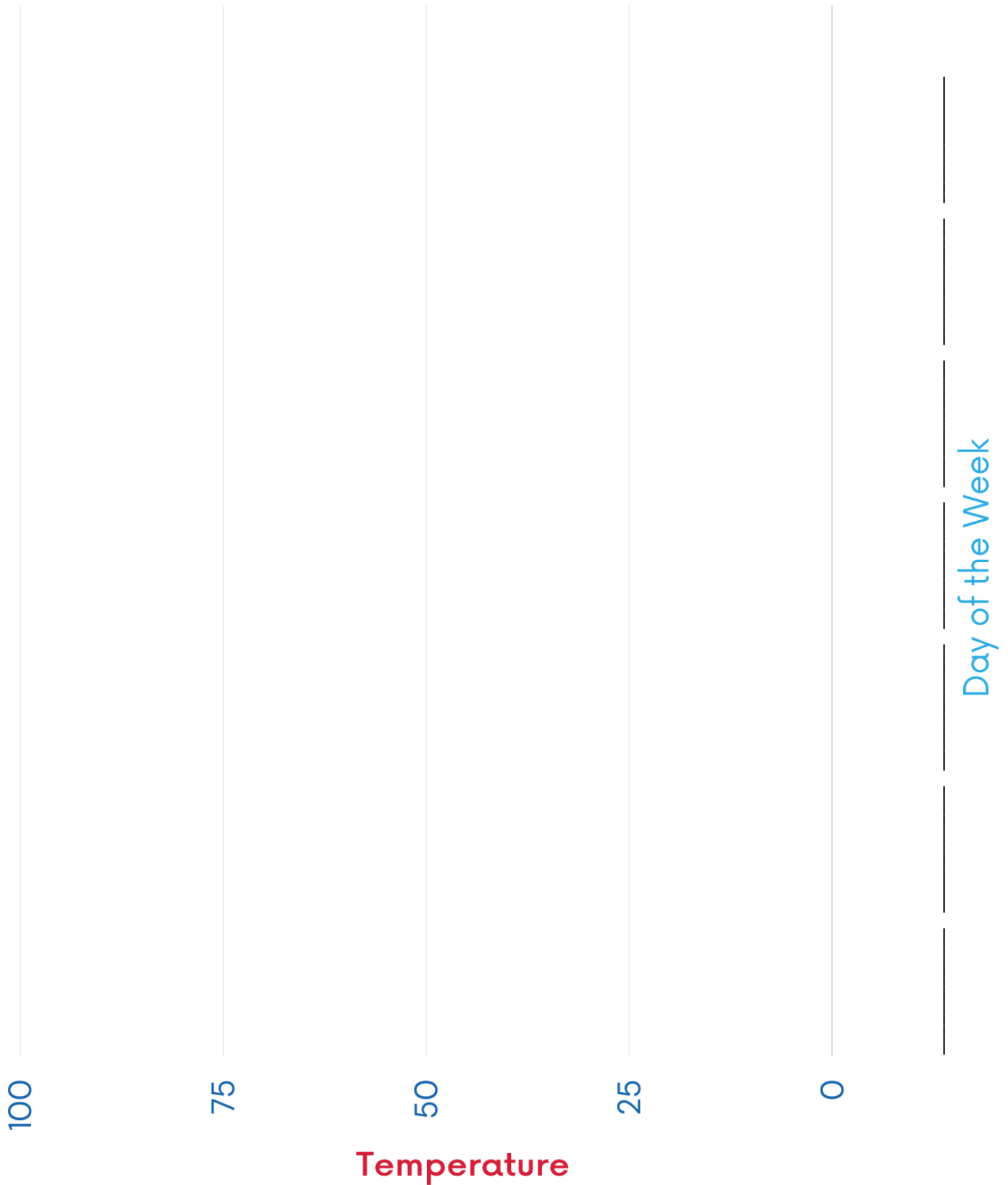
thursday

friday

saturday

DAILY TEMPERATURE

Input the daily temperatures
from your weather log to
create a bar graph.





CONCLUSIONS



What is the average temperature this week? (To find the average add all 7 temperatures together and then divide by 7) :

Based on your observations, is this weather typical (or normal) for the season? Why or why not?:

3D RAINBOW CRAFT

EXAMPLES



Easy Peasy and Fun

<https://www.easypeasyandfun.com/rainbow-paper-craft/>



<https://iheartcraftythings.com/rainbow-card.html>



thenerdswife.com

<https://thenerdswife.com/rainbow-preschool-craft-elmers-early-learners.html>



<https://www.craftymorning.com/3d-paper-rainbow-kids-craft/>

WATER CYCLE **IN A BAG**

Supplies needed: Plastic sandwich or ziplock bag, markers, 1/4 cup water, and tape

1. Lay your bag out flat on a hard surface. Draw a simplified water cycle and label the different parts (Condensation, Evaporation, Precipitation).
 2. Add 1/4 cup of water to your bag and zip it tightly closed.
 3. With your parent's permission, tape the bag to a window that gets lots of direct sunlight. (Tip: Use a heavier tape like painters or masking tape. Tape along the top and sides of the bag so it doesn't fall.)
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MISSOURI GEOGRAPHY

Handout F

Identifying Major cities, rivers, and border states. Then place them on a map of Missouri.

1. List the 8 states that border Missouri:
2. What are the two largest rivers in Missouri (hint: they are also the two longest rivers in North America!)?
3. What city is Missouri's capital?
4. Name the two cities in Missouri that have professional baseball teams and match them with which side of the state they are on.

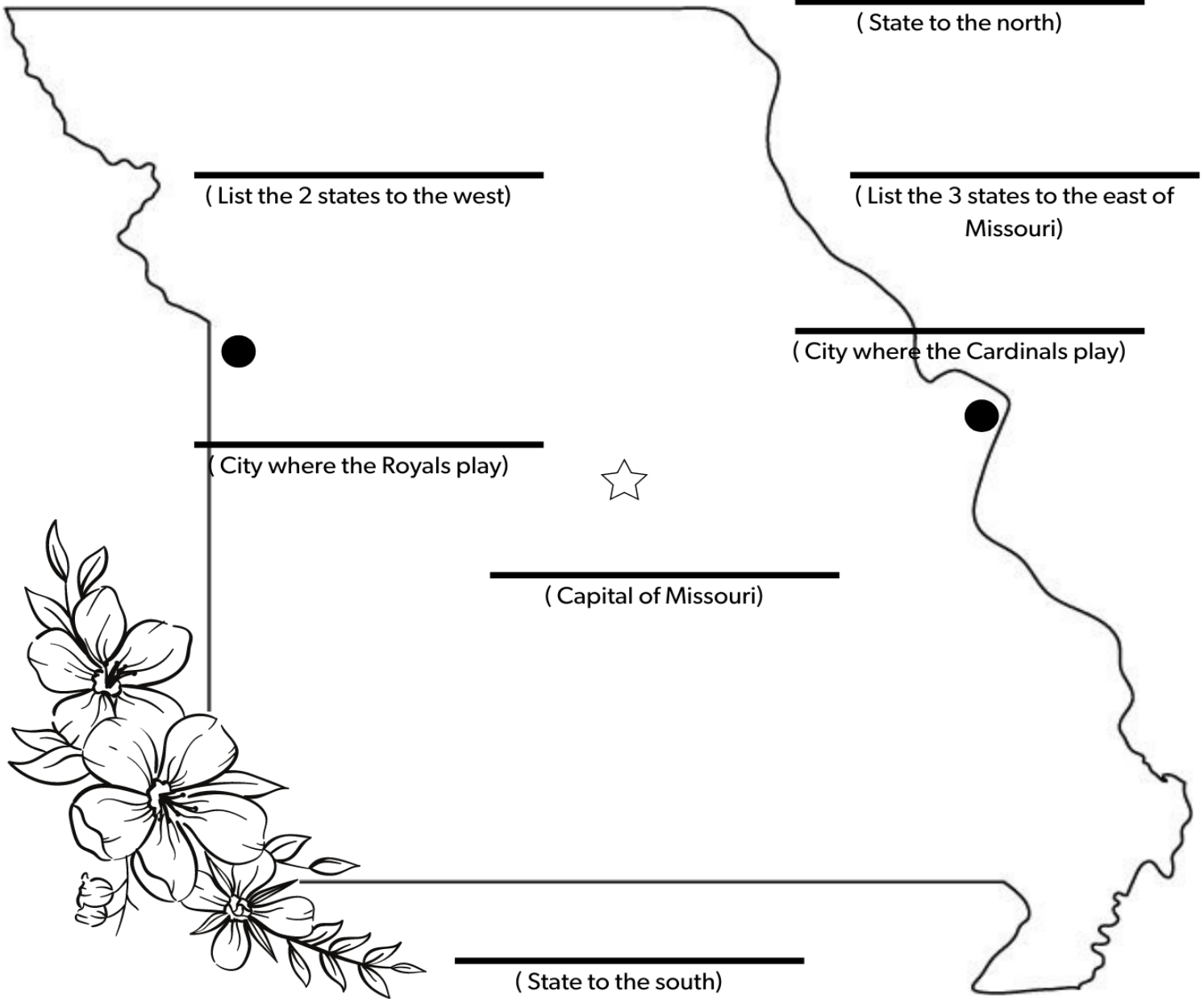
East side of the state:

West side of the state:

7. The _____ Mountains are located south of the Missouri River. This region is called the Ozark Plateau.

MISSOURI

Handout G



Draw the Mississippi River. It flows along the eastern border.

Draw the Missouri River. It flows along the north western border and then across the state.

Fill in all the border states and cities.

DIY RAIN GAUGE

PARENTAL SUPERVISION
RECOMMENDED

Supplies needed: Large plastic bottle, scissors, tape, ruler, marker, and a small amount of water

1. Using scissors, cut off the top part of your bottle.
Set aside the top for now.
2. Pour about a half-inch of water into the bottom part of your bottle.
3. Put a long piece of tape going up the side of your bottle. Then take your ruler and make a mark at each inch starting at the point where the water is filled.
4. Remove the lid from the top part of your bottle and then turn the top upside down and place it into the bottom part of the bottle to create a funnel.