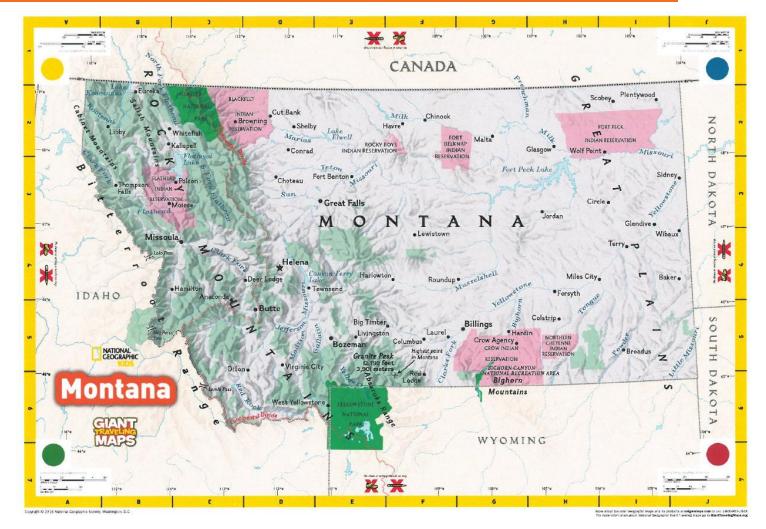


#### Giant Map of Montana Webinar

#### **Montana Geographic Alliance**

Sarah Halvorson, Alliance Coordinator Rebecca Kranitz, Program Manager





# National Geographic Giant Map Program: Brief Overview

- National Geographic launched Giant State Maps in September 2016
  - Expand on Giant Continent Map Program (auditorium-sized)
  - Created classroom-sized state maps

#### Goals:

- Provide teachers with a new resource and adaptive curriculum
- Encourage experiential, hands-and-feet-on learning
- Show students that geography is FUN
- Increase geographic literacy

## Pedagogical Approach

- Spatial Thinking About Maps: Development of Concepts and Skills Across the Early Years
  - By Audrey & Lindsey Mohan,
    2014
- Defines spatial thinking
- Outlines spatial thinking progressions from Pre-K to 6+

# THINKING



#### SPATIAL THINKING ABOUT MAPS: DEVELOPMENT OF CONCEPTS AND SKILLS ACROSS THE EARLY YEARS

Spatial thinking is arguably one of the most important ways of thinking for a child to develop as he or she grows. All individuals, to greater or lesser extents, use this type of thinking as they interact with the world around them. It is a unique way of thinking about the world and interacting within the world. Spatial thinking involves visualizing, interpreting, and reasoning using location, distance, direction, relationships, movement, and change in space. A student who has acquired robust spatial thinking skills is at an advantage in our increasingly global and technological society.

Providing quality instructional resources and activities for learning how to think spatially during the formative school years is critical. It is even more important that such resources and activities are not simply "flashy" software or fun and games, but instead are learning experiences designed with research on spatial concept development at their core. This report synthesizes spatial thinking research with respect to mapping concepts and skills as a first step toward making recommendations for improvements in instructional resources and activities used in Grades preK-5.







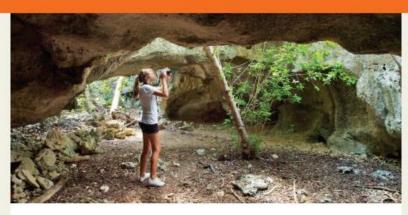


**CURIOSITY.** An explorer is curious about how the world works. An explorer is adventurous, seeking out new and challenging experiences.

**RESPONSIBILITY.** An explorer has concern for other people, cultures, and the planet. An explorer considers multiple perspectives and respects others regardless of differences.

**EMPOWERMENT.** An explorer acts on curiosity, respect, responsibility, and adventurousness and persists in the face of challenges.





**OBSERVATION.** An explorer notices and documents the world and is able to make sense of those observations.

**COMMUNICATION.** An explorer is a storyteller, communicating experiences and ideas effectively through language and media. An explorer has literacy skills, interpreting and creating new understanding from spoken language, writing, and a wide variety of visual and audio media.

**COLLABORATION.** An explorer works effectively with others to achieve goals.

**PROBLEM SOLVING.** An explorer is able to generate, evaluate, and implement solutions to problems. An explorer is a capable decision-maker—able to identify alternatives and weigh trade-offs to make a well-reasoned decision.

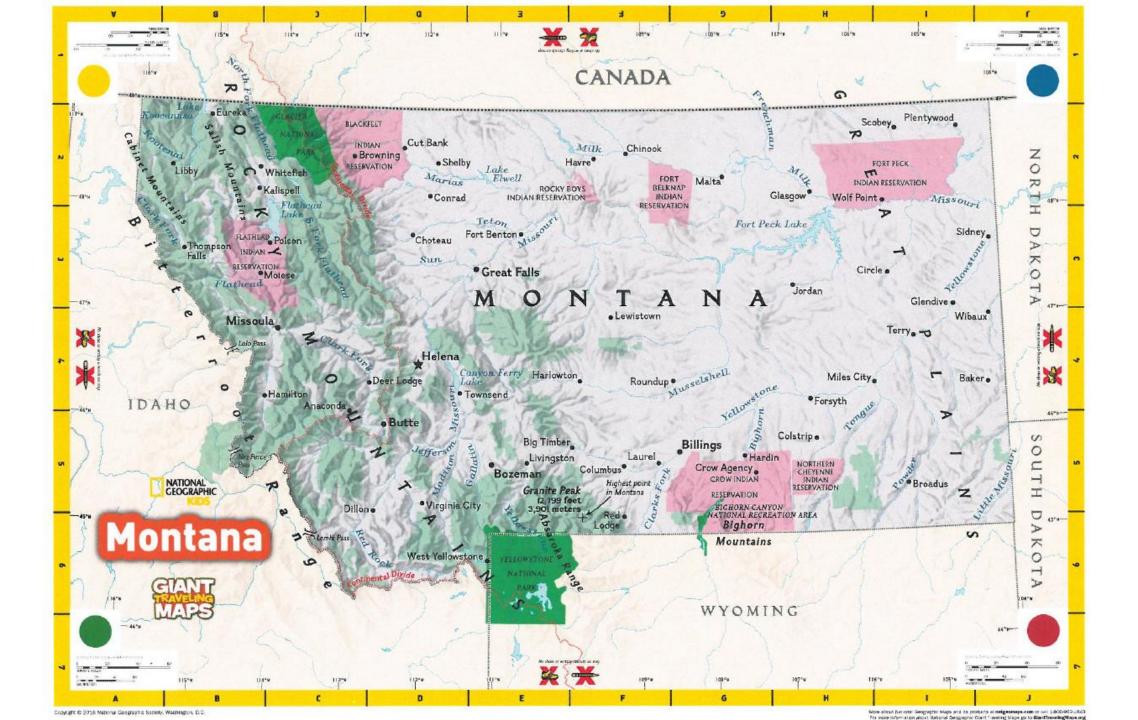
In addition to the skills and attitudes of an explorer, people need a certain knowledge set to understand how the world works. National Geographic expresses this critical knowledge through our key focus areas:

**OUR HUMAN STORY.** Exploring where we came from, how we live today, and where we may find ourselves tomorrow.

**OUR LIVING PLANET.** Understanding the amazing, intricate, and interconnected systems of the changing planet we live on.

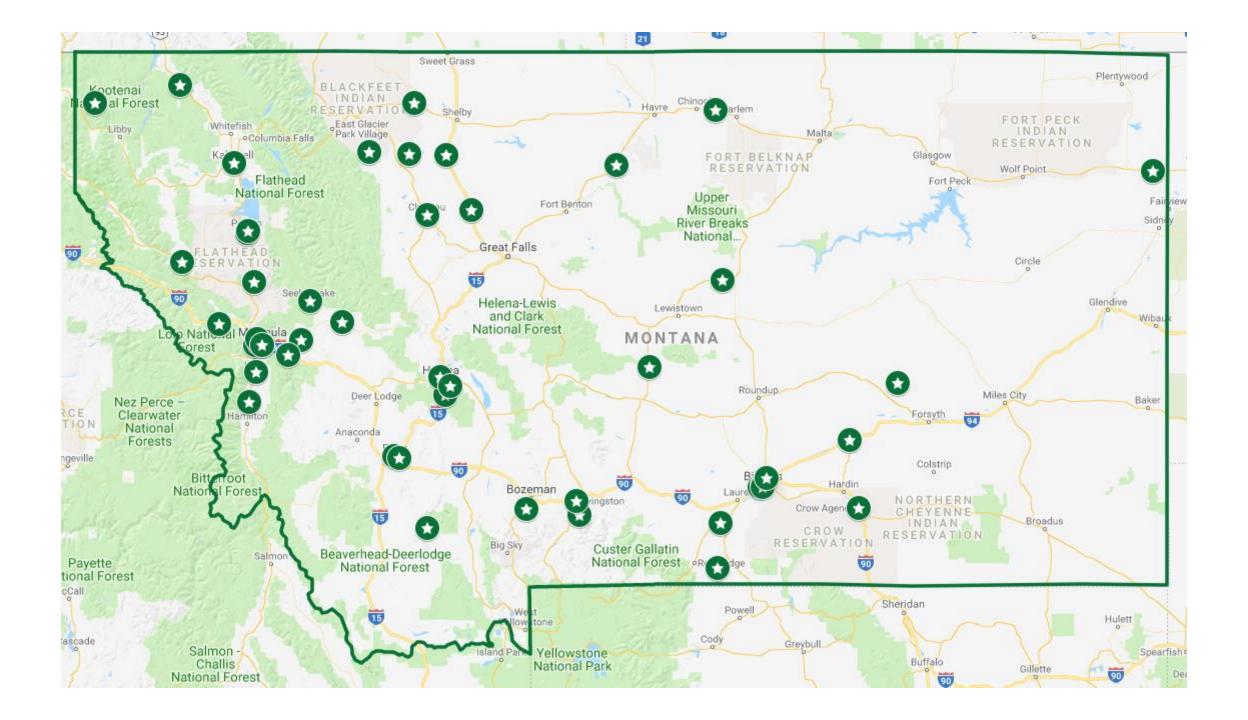
**CRITICAL SPECIES.** Revealing, celebrating, and helping to protect the amazing and diverse creatures we share our world with.





# Giant Map Program in Montana

- Launched in January 2017
- The Giant Map of MT travelled to schools for one-week at a time during:
  - January June 2017
  - January June 2018
  - October December 2018
  - Various weeks in Fall 2017 and Fall 2018
- Giant Map of MT has been to 50 schools across the state
  - Kindergarten through 12<sup>th</sup> grade



# **Pre-Service Teacher Training**

- University of Montana
- Montana State University

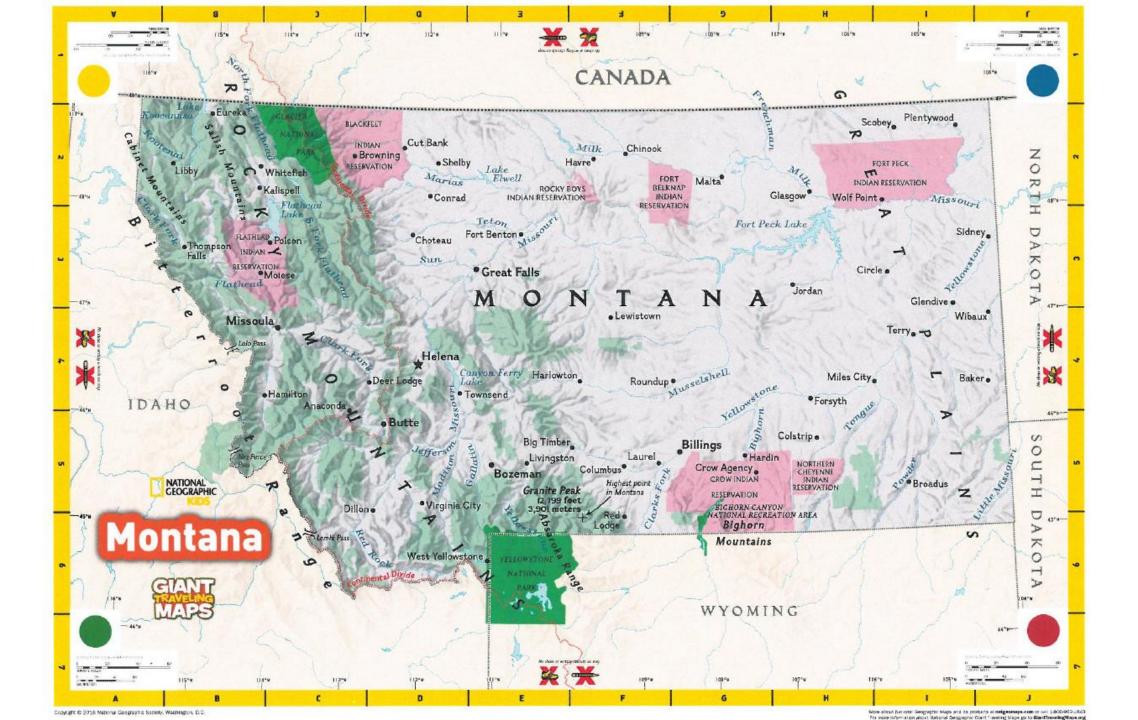






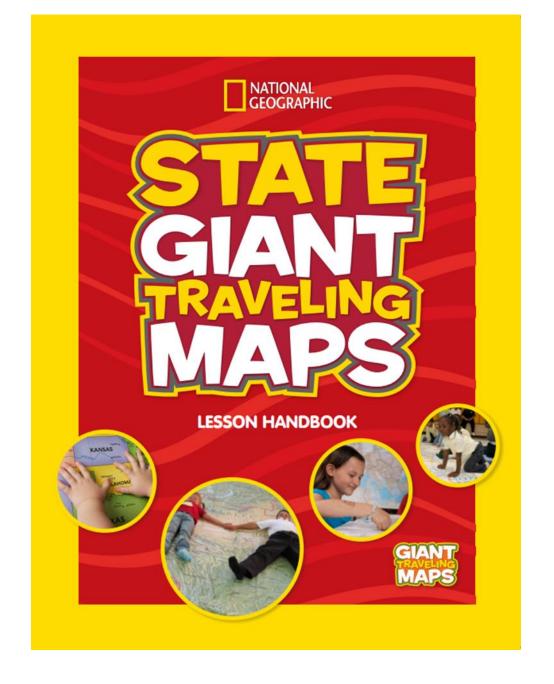






### **Lesson Handbook**

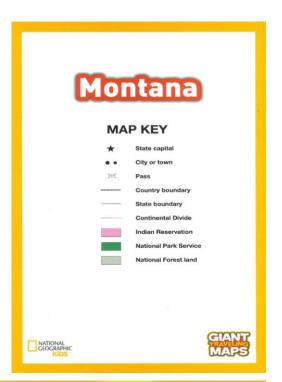
- Summary of background research
- Tables that outline spatial thinking abilities of Pre-k – 6+
- Educator background information, guiding questions, time needed, objectives, materials, preparation, extensions, tips, and national standards
- Six lessons can be used with any state map
  - What? Why? Wonder!
  - Grids
  - Physical Features Scavenger Hunt
  - Cardinal Directions
  - Map Scale and Measuring Distance
  - Introduction to GIS

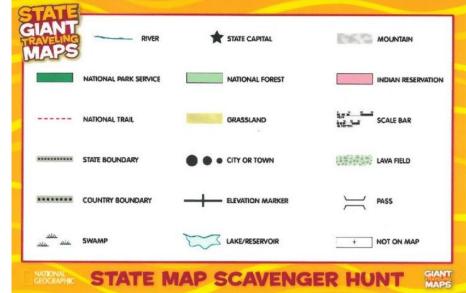


## **Giant Map Teaching Materials**









## State Specific Lessons

- Many teachers have created their own lessons using the Giant Map of MT
- Road Trip Around the Reservations
  - Currently, can be accessed on Montana Geographic Alliance Website (<u>www.umt.edu/mga</u>)



Alliance Created State Giant Traveling Map Lesson

Title: Road Trip Around the Reservations

Recommended Grades: 3-4

Time Needed: 35 minutes

#### Objectives:

- Identify the seven reservations in the state of Montana.
- Become familiar with place names.
- Learn where each of the 12 tribal nations live in the state of Montana.
- Practice using map scale by measuring the distances between reservations.









## Other Giant Map Activities Available Online

- Colorado Geographic Alliance
  - https://www.uccs.edu/coga/colorado giant map
- Arizona Geographic Alliance
  - https://geoalliance.asu.edu/lessons/giantmapactivities
- Oregon Geographic Alliance
  - <a href="https://www.pdx.edu/geography-education/sites/www.pdx.edu.geography-education/files/A%20Manual%20for%20Using%20the%20Giant%20Map%20of%20Oregon\_0.pdf">https://www.pdx.edu/geography-education/sites/www.pdx.edu.geo
- Minnesota Geographic Alliance
  - <a href="http://lt.umn.edu/mage/wp-content/uploads/2016/10/MinnesotaBiomesLesson.pdf">http://lt.umn.edu/mage/wp-content/uploads/2016/10/MinnesotaBiomesLesson.pdf</a>

#### Resources

- Lesson Handbook
  - https://media.nationalgeographic.org/assets/file/State Giant Maps Lesson Handbook.pdf
- National Geographic Learning Framework
  - <a href="https://www.nationalgeographic.org/education/about/learning-framework">https://www.nationalgeographic.org/education/about/learning-framework</a>
- Purchase a Giant Map
  - https://www.nationalgeographic.org/education/giant-maps/