



Park Hill School District

Building Successful Futures • Each Student • Every Day

High School Hunting, Camping & Fishing Curriculum

Course Description: The emphasis of this course is to develop basic knowledge and necessary skills to participate safely in outdoor recreation activities. Activities include archery, orienteering, fishing, camping, fire starting, and hunter education. Missouri Department of Conservation educational resources are used as official study guides to obtain a Hunter Safety Certification card. A fishing field trip is scheduled during the school day for hands-on experience. This course counts as 1 Physical Education credit offered to 11th and 12th grade students.

Scope and Sequence:

Timeframe	Unit	Instructional Topics
6 days	Missouri Ecology	Topic 1: Ecology Topic 2: Population/Extinction Topic 3: Disturbance of Biological Communities
20 days	Camping	Topic 1: Trip Planning Topic 2: Proper Equipment Use Topic 3: Leave No Trace Topic 4: Campfire Safety Topic 5: Wilderness First Aid
10 days	Hunting	Topic 1: History and Ethics of Hunter Education Topic 2: Firearm Safety
10 days	Fishing	Topic 1: Fishing Equipment Topic 2: Knot Tying Topic 3: Casting

		Topic 4: Fish Identification Topic 5: Laws and Regulations
15 days	Archery	Topic 1: Identify Parts of the Bow and Arrow Topic 2: 11 Steps to Successful Archery Topic 2: Whistle Commands Topic 5: How to set up the Range
6 days	Orienteering	Topic 1: Compass Topic 2: Map Topic 3: Course

Curriculum Revision Tracking

Fall, 2019

- Added Topic 4: Archery to Unit 3: Hunting

Spring 2026

- All Priority standards broken down into student-centric learning targets to provide more clarity in learning for both teachers and students.
- All priority standards for the course were revised, consolidated, and/or adapted to better represent the updated topics of each unit, as well as to more closely align them with source materials from credible agencies or organizations that produce and maintain educational, or training, materials. The following were used as sources of standards for each specific unit:
 - The priority standards for the **Ecology Unit** are derived from the [Missouri Department of Conservation](#) (MDC), but are also aligned with the [Missouri Learning Standards for Science](#) (9-12.LS2 and 9-12.LS4 strands) as established by DESE.
 - The priority standards for the **Hunting Unit** are derived from the [Missouri Department of Conservation](#) (MDC) [Hunter Education course](#).
 - The priority standards for the **Fishing Unit** are derived from the [Missouri Department of Conservation](#) (MDC) [Discovering Nature: Fishing](#) Instructor's Guide.
 - The priority standards for the **Orienteering Unit** are derived from the [teaching materials](#) of the orienteering merit badge series from [Scouting America](#)
 - The priority standards from the **Archery Unit** are derived from the [National Archery in the Schools Program](#) (NASP) [curricular and instructor materials](#).
 - The priority standards for the **Camping Unit** are derived from numerous nationally recognized outdoor ethics, safety, conservation, and wilderness training frameworks. All content aligns with guidance and educational materials developed and maintained by these reputable organizations dedicated to conservation, outdoor leadership, and safety education. These agencies, organizations, and sources include:
 - [Leave No Trace Center for Outdoor Ethics](#) (LNT) -Develops and maintains the 7 Leave No Trace Principles and nationally recognized outdoor ethics curricula that promote responsible decision-making and environmental stewardship.
 - [National Park Service](#) (NPS) -Establishes and disseminates public land safety guidance, environmental stewardship practices, and visitor education standards used across federal recreation areas.

- [American Red Cross](#) (ARC) -Develops nationally recognized first aid, emergency preparedness, and response training standards widely adopted in educational and youth program settings.
- [Missouri Department of Conservation](#) (MDC) -Provides statewide leadership in conservation education, wildlife management, outdoor recreation safety, and responsible natural resource stewardship.
- [Boy Scouts of America](#) (BSA) -Designs structured outdoor skills progression frameworks and safety-based camping competencies grounded in youth development and risk management principles.
- [American Camp Association](#) (ACA) -Establishes research-informed accreditation standards for health, safety, supervision, staff training, and program quality in camp and outdoor education environments.

Unit 1: Missouri Ecology

Name of Unit: Missouri Ecology

Length of Unit: 6 days

Overview of Unit: Introduce students to the basics of ecology in Missouri and how it impacts the environment.

Priority Standards for unit:

- Explain and analyze ecosystems related to conservation and preservation in Missouri. *(derived from [MDC](#) and aligned with DESE standards [9-12.LS2.A.1](#) & [9-12.LS2.C.1](#))*
- Explain and evaluate population dynamics, including reproduction, adaptation, and the natural checks and balances that regulate animal populations. *(derived from [MDC](#) and aligned with DESE standards [9-12.LS2.A.1](#) & [9-12.LS4.C.2](#))*
- Explain and evaluate how diversity and disturbances affect the stability of biological communities. *(derived from [MDC](#) and aligned with DESE standards [9-12.LS2.B.3](#) & [9-12.LS2.C.1](#))*
- Explain and evaluate extinction and analyze factors that place species at risk, including identifying wildlife that is threatened or under consideration for extinction. *(derived from [MDC](#) and aligned with DESE standards [9-12.LS4.C.2](#) & [9-12.LS4.C.3](#))*

Unwrapped Priority Standards:

Priority Standard: Explain and analyze ecosystems related to conservation and preservation in Missouri. *(derived from MDC and aligned with DESE standards [9-12.LS2.A.1](#) & [9-12.LS2.C.1](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
The student will analyze Missouri ecosystems, including the interactions between organisms and their environments.	2
	Analyze
The student will evaluate how conservation and preservation practices impact Missouri ecosystems and organisms.	3
	Evaluate

Priority Standard: Explain and evaluate population dynamics, including reproduction, adaptation, and the natural checks and balances that regulate animal populations. *(derived from MDC and aligned with DESE standards [9-12.LS2.A.1](#) & [9-12.LS4.C.2](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
The student will analyze population dynamics, including reproduction and adaptation in animal populations.	2
	Analyze
The student will evaluate natural checks and balances that regulate animal populations.	3
	Evaluate

Priority Standard: Explain and evaluate how diversity and disturbances affect the stability of biological communities. *(derived from MDC and aligned with DESE standards [9-12.LS2.B.3](#) & [9-12.LS2.C.1](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
The student will analyze how biodiversity contributes to the stability of biological communities.	3
	Analyze
The student will evaluate the effects of disturbances, including population growth, on biological communities.	3
	Evaluate

Priority Standard: Explain and evaluate extinction and analyze factors that place species at risk, including identifying wildlife that is threatened or under consideration for extinction.
(derived from MDC and aligned with DESE standards [9-12.LS4.C.2](#) & [9-12.LS4.C.3](#))

Learning Targets	Webb's DOK Level
	Bloom's Level
The student will analyze factors that contribute to extinction and place species at risk.	3
	Analyze
The student will evaluate wildlife species in Missouri that are threatened or under consideration for extinction.	3
	Evaluate

Essential Questions:

1. How does Ecology impact Missouri?
2. Why is it important to understand how the population reproduces?
3. How does extinction impact our environment?
4. Why is it important to have both conservation and preservation specific lands?

Enduring Understanding/Big Ideas:

1. Ecology impacts Missouri by shaping how plants, animals, and people interact with the state's forests, rivers, prairies, and farmland.
2. Understanding how a population reproduces helps scientists predict whether a species will grow, decline, or stay stable.
3. Extinction disrupts ecosystems by removing species that play important roles, such as predators, pollinators, or decomposers
4. Conservation lands allow people to use natural resources responsibly while protecting ecosystems with restrictions and preservation is the protection of resources in their natural state without human interaction.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Identify Demonstrate Describe Distinguish Determine Define Evaluate Explain Summarize	Ecology Extinction Ecosystems Organisms Vegetation Erosion Waste Management Conservation Preservation Carrying Capacity

Helpful Resources:

- [Nature Unbound](#) (Publication and Instructor's materials to support learning about the Impact of Ecology on Missouri and the World)

Topic 1: Ecology

Engaging Experience 1

Title: What is Ecology?

Suggested Length of Time: 2 Days

Standards Addressed

Priority:

- Explain and analyze ecosystems for conservation and preservation in Missouri.

Detailed Description/Instructions: Students will understand core concepts of ecology, reproduction, adaptation, and conservation:

- Compare and contrast "preservation" and "conservation" and how wildlife has adapted to survive with human intervention of natural habitats.
- Explore current "Trends and Issues" on a topic of preservation or conservation and predict what would happen if there was no intervention to impact the article topic.
- Research which animal populations are over populating in Missouri and predict ways to control the reproduction.

Topic 2: Population/Extinction

Engaging Experience 1

Title: Animal Populations and Extinction

Suggested Length of Time: 2 Days

Standards Addressed

Priority:

- Explain and evaluate extinction and analyze factors that place species at risk, including identifying wildlife that is threatened or under consideration for extinction.

Detailed Description/Instructions: Students will be able to analyze information and communicate checks and balances of our environment. The students will be able to explain how animal extinction impacts our environment.

- Explore a list of keystone species and how the environment would be affected if that species went extinct.
- Create an innovative strategy to track and monitor the changes in the environment to help prevent animal extinction and preserve natural habitat.
- Helpful resources to enhance understanding of this concept:
 - <https://education.nationalgeographic.org/resource/wolves-yellowstone/>
 - <https://www.youtube.com/watch?v=hgCz77ySCbg>

Topic 3: Disturbance of Biological Communities

Engaging Experience 1

Title: When Changes Occur

Suggested Length of Time: 2 Days

Standards Addressed

Priority:

- Explain and evaluate population dynamics, including reproduction, adaptation, and the natural checks and balances that regulate animal populations.

Detailed Description/Instructions: Students will recognize, understand, and communicate how diverse wildlife becomes disturbed in its natural habitat.

- Identify all factors that positively influence a species that creates a stabilized carrying capacity environment for balanced animal populations to survive and thrive by creating a visual representation.
- Create a visual representation of an environment that negatively affects the checks and balances of animal populations. Identify all factors that could negatively affect and cause a decline in a species population or change animal behavior.

Engaging Scenario

Engaging Scenario (An Engaging Scenario is a culminating activity)

The students will participate in a final written project demonstrating the knowledge of ecology, extinction/population, and disturbances to their communities. You will create an infographic regarding the ecosystem. The topics are listed below and the expectations for the assignment.

Title of the Project: Ecosystem Case Study

Choose one ecosystem from the list below:

1. Forest
2. Ocean
3. Wetland
4. Grassland
5. Desert
6. Coral reef

Describe the following areas in this project:

Location of this ecosystem

Key plants and animals

How the ecosystem functions

One major threat caused by humans (pollution, deforestation, climate change, etc.)

Find a recent wildlife management organization that has dedicated funds to improve the ecosystem you selected.

What did the project entail?

In what ways did it affect the ecosystem?

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
Ecology	What is Ecology	Students will understand core concepts of ecology, reproduction, and adaptation	2 days
Population/ Extinction	Animal Population versus Extinction	Students will be able to analyze information and communicate checks and balances of our environment. The students will be able to explain how animal extinction impacts our environment	2 days
Disturbances of Biological Communities	When Changes Occur	Students will understand, memorize, and communicate how diverse wildlife becomes disturbed in its natural habitat.	2 days

Unit 2: Camping

Name of Unit: Camping

Length of Unit: 15 Days

Overview of Unit: This course introduces students to the fundamentals of planning and participating in outdoor adventure trips. Students will learn how to prepare for trips using “Leave No Trace” principles, safely select and use common camping equipment, and prepare basic outdoor meals. Emphasis is also placed on personal responsibility, teamwork, and understanding appropriate actions to take during outdoor emergencies to promote safety.

Priority Standards for unit:

- Identify appropriate criteria when planning a camping or backpacking trip
- Identify and demonstrate how to properly use equipment for camping and hiking
- Apply the 7 “Leave No Trace” Principles when making decisions during outdoor recreation activities.
- Identify skills for making a safe campfire to minimize impacts on the environment.
- Identify ways to safely prepare food and decontaminate water for consumption.
- Identify and demonstrate survival priorities for camping and apply basic first aid knowledge using appropriate treatment methods.

Unwrapped Priority Standards:

Priority Standard: Identify appropriate criteria when planning a camping or backpacking trip	
Learning Targets	Webb’s DOK Level
	Bloom’s Level
Analyze campsite requirements at state and national parks that provide camping and hiking trails	3
	Analyze
Identify factors to consider when making plans for camping or hiking	2
	Understand
Identify equipment needed for a safe and successful camping/hiking trip	1
	Remember

Priority Standard: Identify and demonstrate how to properly use equipment for camping and hiking	
Learning Targets	Webb's DOK Level
	Bloom's Level
Demonstrate how to set up a tent correctly using a bowline and taught line hitch knot	2
	Apply
Demonstrate how to align the correct height of a trekking pole and how use on different terrains	2
	Apply
Demonstrate the proper way to pack a hiking backpack using the correct weight proportions according to body size	2
	Apply

Priority Standard: Apply the 7 Leave No Trace Principles when making decisions during outdoor recreation activities.	
Learning Targets	Webb's DOK Level
	Bloom's Level
Identify the 7 Principles of Leave No Trace	1
	Remember
List examples of how each principle applies to camping and hiking	2
	Apply
Explain the importance of how the principles keep natural resources available for responsible outdoor recreation	3
	Analyze

Priority Standard: Identify skills for making a safe campfire and extinguish it properly to minimize impacts on the environment	
Learning Targets	Webb's DOK Level
	Bloom's Level
Explain the importance of and what constitutes as a safe fire ring	3
	Analyze
Identify the correct type of firewood needed to start a fire (Tinder,Kindling, Fuel) and what alternative sources work as fire starters. (dryer lint, vaseline soaked cottonballs, magnesium striker shavings...)	2
	Apply
Demonstrate the steps to properly extinguish a campfire outdoors.	2
	Apply

Priority Standard: Identify ways to safely prepare and store food and decontaminate water for consumption.	
Learning Targets	Webb's DOK Level
	Bloom's Level
Explain 2 ways to decontaminate water for safe drinking in the outdoors	3
	Analyze
Demonstrate how to prepare food safely over an open flame	2
	Apply
Demonstrate how to hang a bear bag to keep food safe while camping	

Priority Standard: Identify and demonstrate survival priorities for camping and apply basic first aid knowledge using appropriate treatment methods.

Learning Targets	Webb's DOK Level
	Bloom's Level
Identify common injuries associated with camping and hiking and troubleshooting steps	2
	Apply
Demonstrate basic first aid treatment for minor injuries (sprains and strains, snake bites, bleeding wounds, hypothermia, and heat exhaustion)	2
	Apply
Identify ways to signal for help in an emergency	1
	Understand

Essential Questions:

1. What must be considered when planning and preparing for an outdoor adventure?
2. What is the significance of following Leave No Trace?
3. What considerations should be considered when determining a durable camp site?
4. What are important considerations when creating a safe campfire?
5. How can meals be safely and effectively planned and prepared while backpacking?
6. What risks exist in backpacking, and how can preparation, decision-making, and first aid reduce those risks?

Enduring Understanding/Big Ideas:

1. Planning an outdoor adventure requires thoughtful planning that considers location, weather, terrain, group ability, equipment, safety, and environmental impact.
2. Leave No Trace helps preserve natural areas for future visitors by minimizing human impact. Ethical outdoor behavior protects ecosystems, wildlife, and cultural resources while promoting responsible recreation.
3. Ensure the spot is level, elevated from flooding, at least 200 feet from water sources, free of falling hazards, and a previously established site to minimize vegetation impact
4. A safe campfire requires understanding fire regulations, selecting appropriate locations, using proper materials, and fully extinguishing the fire. Responsible fire practices prevent wildfires and protect people and the environment.
5. Effective backpacking meals balance nutrition, weight, preparation time, and food safety. Proper planning and preparation help maintain energy levels while reducing the risk of illness or attracting wildlife.
6. Backpacking involves risks such as weather exposure, injury, dehydration, and navigation errors. These risks can be reduced through preparation, informed decision-making, and basic first aid knowledge.

Academic Cross-Curricular Words	Content/Domain Specific
Identify	Backpacking
Demonstrate	Natural Shelters
Describe	Widow Maker
Distinguish	Mummy Bag
Determine	Bear Bag
Define	Leave No Trace
Evaluate	Hypothermia
Explain	Heat Exhaustion
Summarize	Trekking Pole

Topic 1: Trip Planning

Engaging Experience 1

Title: Prepare and Plan Ahead

Suggested Length of Time: 1-2 Days

Standards Addressed

Priority:

- Identify appropriate criteria to consider when planning a camping or backpacking trip

Detailed Description/Instructions: Students will explore topics to consider when planning for an outdoor adventure trip and how to pack accordingly.

- Compare a personally constructed list of items to pack on a camping trip to a professional list provided from a reliable source and determine essential and non essential tools/items.
- Helpful Resources : [How to Plan Your Own Camping Trip | Campus Recreation | CSUSM](#), [Camping Checklists | REI Expert Advice](#)
- Explore several National and State campground sites through the lens of making a personal reservation. Determine which aspects are important for a campground website to include for the general population when planning for a trip.
- Helpful Resource: [Campgrounds at Indiana Dunes National Park](#) This website could be used as the “Gold Standard” and used to compare student selections of what to include.

Topic 2: Proper Equipment Use

Engaging Experience 1

Title: How to Tie Different Types of Knots

Suggested Length of Time: 3-4 Days

Standards Addressed

Priority:

- Identify and demonstrate how to properly use equipment for camping and hiking

Detailed Description/Instructions: Demonstrate how to tie the Bowline Knot, Taught Line Hitch, Square Knot, and Trucker's Hitch.. The bowline knot will be attached to the rain fly and the taught line hitch knot will wrap around the stake in the ground and tension is adjusted to reduce slack on the rain fly. The square knot is used to combine 2 ropes together and the truckers hitch is to fasten an object down for hauling.

- Individual practice of tying each knot
- Relay Knot Tying activity using all knots learned
- Students demonstrate they know how to tie each knot as an assessment

Helpful Resources:

- [Complete List of Knots | How to tie over 200 knots..](#) With interactive visual demonstrations of each knot.

Engaging Experience 2

Title: Putting up a Tent

Suggested Length of Time: 2-3 Days

Standards Addressed

Priority:

- Identify and demonstrate how to properly use equipment for camping and hiking

Detailed Description/Instructions: Explain how to select a safe campsite using criteria from [How to Pick the Best Campsite for a Tent | National Geographic](#) and demonstrate putting up and properly staking out a tent with a footprint and rain fly using the knots learned from the previous topic.

- Create a checklist of necessary steps in order to properly set up a tent.
- Students practice setting up a tent in small groups and individually and analyze which assembly they prefer.
- Students observe a small group and give specific feedback as to how the group could work more efficiently assembling the tent.

Engaging Experience 3

Title: Preparing Trekking Poles for Hiking

Suggested Length of Time: 1-2 Days

Standards Addressed

Priority:

- Identify and demonstrate how to properly use equipment for camping and hiking.

Detailed Description/Instructions: Students learn how to choose the right trekking poles for hiking based on terrain, body size, and trip conditions. Students are introduced to proper trekking pole fit and adjustment, along with correct techniques for using poles on flat terrain, uphill climbs, and downhill descents. Include the physical and safety benefits of trekking poles, including improved balance, reduced strain on joints, increased endurance, and enhanced stability on uneven or slippery surfaces.

- Students research aspects mentioned above and are in charge of leading “Skill Stations” to teach classmates.
- Compare and contrast walking with trekking poles versus walking without over a designated distance and compare speed, balance, and effort.
- Determine other ways a trekking pole could be useful when hiking or camping.
 - *(Testing depth of water, replacing a broken tent stake or pole, pushing away poisonous plants or cobwebs when hiking, exploring a dark hole instead of reaching hand inside, fending off a small animal)*
- Optional: Add a timed relay for fun competition.

Helpful Resources:

- [Trekking Poles & Hiking Staffs: How to Use | REI Expert Advice](#)

Engaging Experience 4

Title: Effectively Packing a Hiking Backpack

Suggested Length of Time: 1 Day

Standards Addressed

Priority:

- Identify and demonstrate how to properly use equipment for camping and hiking.

Detailed Description/Instructions: Students will understand the importance of packing the “10 Essentials,” understand the guiding principles of how to efficiently pack and organize items for safe hiking posture, and determine the appropriate size and weight of a backpack recommended for individuals.

- Categorize camping and hiking items by weight and importance to determine in which location it should be packed in a hiking backpack
- Evaluate personal height and weight to determine which size backpack and how heavy an individual should carry while hiking and still ensure safety.
- Create a new design of a hiking backpack that meet safety concerns and any personal features that could enhance a hiking experience.

Helpful Resources:

- [Australian Hiker | How to pack a backpack; a beginners guide](#) This resource includes infographics, explanations, and examples.

Topic 3: Leave No Trace

Engaging Experience 1

Title: 7 Principles

Suggested Length of Time: 2-3 Days

Standards Addressed

Priority:

- Students will identify the 7 Principles of Leave No Trace and how they apply to outdoor recreation.

Detailed Description/Instructions: Students will be divided into small groups and rotate between stations that each highlight one of the 7 principles. At each, they discuss, make choices, and justify their decisions based on the LNT principle. Can include props like rope, tent stakes, trash items, fishing gear, trail markers, campfire photos, etc.

Examples of potential stations that cover all 7 principles:

- 1) Plan Ahead & Prepare – Students review a scenario (bad weather coming, limited water) and make a safe, low-impact plan.
 - 2) Travel & Camp on Durable Surfaces – Students decide where to pitch a tent or walk on a trail map without disturbing fragile areas.
 - 3) Dispose of Waste Properly – Sort items into trash, recycling, compost, or pack-out.
 - 4) Leave What You Find – Identify which natural or historical items should be left untouched.
 - 5) Minimize Campfire Impact – Decide if a fire is appropriate; choose fire-safe practices.
 - 6) Respect Wildlife – Determine correct actions when encountering animals, including food storage and safe distance.
 - 7) Be Considerate of Other Visitors – Role-play situations like sharing trails or quiet campsites.
- Explain how the 7 principles protect natural resources and how they can be applied while hunting, camping, or fishing.
 - Choosing 1 of the principles, students will defend which principle would be easiest/hardest to apply in their chosen setting.
 - Discuss how ignoring one principle affects natural resources or wildlife.

Topic 4: Campfire Safety

Engaging Experience 1

Title: Building a Fire

Suggested Length of Time: 2-3 Days

Standards Addressed

Priority:

- Students will demonstrate skills for making a safe campfire and extinguish it properly to minimize impacts on the environment

Detailed Description/Instructions: Students will select the appropriate materials to make a fire ring and campfire and create 3 different models of campfires used outdoors.

- Discuss the importance of the proper material used for a fire ring and building a fire.
- Explore video examples of consequences when using the wrong materials as a fire ring or fire starters.
- Determine the best fire starter materials by testing a variety of items in a controlled setting using firebricks as the perimeter by how quickly it lights and how long the flame lasts.
 - Possible items could include: Vaseline soaked cotton balls, dryer lint inside a toilet paper roll, ball of Duct Tape, and greasy potato chips (Fritos, Doritos).
- Demonstrate knowledge of how to build 3 types of fires and research the pros and cons of each. A visual demonstration could include constructing a mini model of these fires with pebbles, twigs, toothpicks, and leaves or dry grass or using a firepit and wood outdoors.
- Helpful Resources: [Principle 5: Minimize Campfire Impacts - Leave No Trace Center](#) website and [13 Types of Campfires and Their Uses - Cool of the Wild](#)

Engaging Experience 2

Title: Food and Water Preparation

Suggested Length of Time: 3-4 Days

Standards Addressed

Priority:

- Students will demonstrate skills for making a safe campfire to minimize impacts on the environment

Detailed Description/Instructions: Students will practice decontaminating water, cooking food over an open flame, and hanging a secure bear bag.

- Evaluate a variety of water purification tablets to cleanse water and offer for students to drink and compare taste.
- Helpful Resource:
 - [About Water Treatment Options When Hiking, Camping, or Traveling | Drinking Water | CDC](#) - CDC website facts about water borne illnesses
 - [How to Filter Water While Backpacking and Camping | REI Expert Advice](#) video and article explanation
- Possible food preparation activities could include: Grill hotdogs, roast smores, and boil dehydrated camping food over an open flame emphasizing some foods needing a flame and some foods cook better with hot coals when the fire dies down.
- Apply proper technique of creating and hanging a Bear Bag to keep food away from animals.
- Possible Activity: Students practice tossing the bear bag over a branch or football goal post securing it according to the dimensions found in the resource below.
[How to Hang a Bear Bag: The Right Way — Into the Backcountry](#)

Topic 5: Wilderness First Aid

Engaging Experience 1

Title: Common Injuries

Suggested Length of Time: 1-2 Day

Standards Addressed

Priority:

- Identify and demonstrate survival priorities for camping and apply basic first aid knowledge using appropriate treatment methods.

Detailed Description/Instructions: Students will identify several common injuries that can occur while camping and hiking, the causes of each, and steps to take to minimize the chance for them to occur.

- Create a visual presentation explaining topics such as: Cause of injury, Treatment, and How to Avoid it.
- Explore common myths related to the treatments of injuries and compare information found from reliable resources to determine if the myth is true or false.
- Assemble a model of a venomous snake and its visual characteristics.

Helpful Resources:

- [12 Most Common Hiking Injuries - Prevention & Treatment 2025](#)
- [How to Prevent Common Hiking Injuries | REI Expert Advice](#)
- [How to Survive a Snakebite in the Wilderness](#)

Engaging Experience 2

Title: First Aid

Suggested Length of Time: 1-2 Day

Standards Addressed

Priority:

- Identify and demonstrate survival priorities for camping and apply basic first aid knowledge using appropriate treatment methods.

Detailed Description/Instructions: Students will correctly recognize various emergency situations and apply proper first-aid procedures, including scene safety, patient assessment, and basic care, appropriate to an outdoor setting.

- Locate wilderness first aid scenarios and demonstrate knowledge of appropriate procedures to follow if found in this experience. Possibly Activity: role playing or group discussion of how they would handle the situation.
- Describe the importance of establishing a safe scene and identify factors that could potentially put a person at risk when trying to assist an injured person in an outdoor setting. (loose rocks, uneven terrain, swift waters, mudslides, wild animals, lightning...)
- Students illustrate an unsafe scene while giving examples of how a person needs to assess the scene before helping the injured. Possible demonstrations could include drawing a picture, writing a story, role playing, making a video.
- List materials that would be useful in a first aid kit when outdoors and alternative items that could serve as more than one purpose in an emergency.
- Possible Activity to Practice skills; wrapping ankles and making shoulder slings using ace bandages, clothing, sticks, trekking poles (or rulers) to splint fractures and sprains for immobilization, using triangular bandages for slings, moving an injured person using a four-handed seat carry, 4-person carry, two-person carry, or building a rescue stretcher with trekking poles and jackets.
- Helpful Resources:
 - [Wilderness First Aid: 5 Steps of a Scene Size-up - NOLS](#)
 - [Wilderness First Aid Basics | REI Expert Advice](#)

Engaging Experience 3

Title: SOS

Suggested Length of Time: 1 Day

Standards Addressed

Priority:

- Identify and demonstrate survival priorities for camping and apply basic first aid knowledge using appropriate treatment methods.

Detailed Description/Instructions: Students learn the universal distress signal (three repeated signals such as whistles, flashes, or fires), how to use signaling tools like whistles, signal mirrors, flashlights, brightly colored clothing, and ground-to-air symbols, and when to use them appropriately. Emphasis is placed on remaining visible, staying calm while waiting for help, and effectively communicating location and needs to a rescue team.

- Locate instructional videos of how to use a signaling mirror with a hole and a regular compact mirror focusing on aiming technique and tips for success.
- Students practice applying correct positioning techniques of the mirror to get the correct angle for the reflection beam to hit the bullseye of a target.
- Explain the importance of communicating clearly through a walking talkie for search and rescue teams to locate individuals.
 - Possible Activity: Use walkie talkies to communicate common lingo and phrases. Play hide and seek outdoors with one partner using descriptive language of the landscape and cardinal directions.

Engaging Scenario

Engaging Scenario (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

Students will participate in a camping project where they will plan a group camping excursion where they will include all the elements taught in class. (preparation, backpacking, cooking, food preparation, shelter, fire safety, and emergency scenarios).

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
Trip Planning	Prepare and Plan Ahead	Students identify appropriate criteria when planning a camping or backpacking trip	1-2 days
Proper Equipment Use	How to Tie Different Types of Knots	Students will identify specific knots used in camping and demonstrate how to properly tie the knots	3-4 days
Proper Equipment Use	Putting Up A Tent	Students will demonstrate how to assemble a tent using a footprint, tent, and rainfly by staking out and using guy lines.	2-3 days
Proper Equipment Use	Preparing Trekking Poles for Hiking	Students will demonstrate how to align the correct height of a trekking pole and how use on different terrains	1-2 days
Proper Equipment Use	Effectively Packing a Hiking Backpack	Students will demonstrate the proper way to pack a hiking backpack using the correct weight proportions according to body size	1-2 days
Leave No Trace	7 Principles	Students will identify the 7 Principles of Leave No Trace	2-3 days
Campfire Safety	Building a Fire	Students will demonstrate skills for making a safe campfire and extinguish it properly	2-3 days
Campfire Safety	Food and Water Preparation	Students will demonstrate decontaminating water and preparing food over a campfire.	3-4 days
Wilderness First-Aid	Common Injuries	Students will identify common injuries that occur when camping	1-2 days

Wilderness First-Aid	First- Aid	Students will demonstrate how to apply basic first aid knowledge in an outdoor setting	1 day
Wilderness First- Aid	SOS	Students will identify ways to communicate for help in an outdoor setting	1 day

Unit 3: Hunter Education

Name of Unit: Hunting

Length of Unit: 9 days

Overview of Unit: Students will learn how hunting helps conserve wildlife and natural resources. They will explore the history of hunter education, practice safe firearm handling, and understand the importance of ethical hunting.

Priority Standards for unit:

- Explain the role of hunting in conservation and natural resource management. *(derived from MDC “[Hunter Education](#)” course)*
- Analyze the history and development of hunting education practices over time. *(derived from MDC “[Hunter Education](#)” course)*
- Explain and demonstrate safe and responsible use of firearms in hunting, including the consequences of improper use. *(derived from MDC “[Hunter Education](#)” course)*
- Evaluate hunting ethics and their importance in modern practices. *(derived from MDC “[Hunter Education](#)” course)*

Priority Standard: Explain the role of hunting in conservation and natural resource management. *(derived from MDC “[Hunter Education](#)” course)*

Learning Targets	Webb’s DOK Level
	Bloom’s Level
Students will compare and contrast sport hunting and market hunting, including historical and modern impacts.	3
	Analyze
Students will explain how regulated hunting supports conservation and sustains wildlife populations	2
	Analyze

Priority Standard: Analyze the history and development of hunting education practices over time. *(derived from MDC “[Hunter Education](#)” course)*

Learning Targets	Webb’s DOK Level
	Bloom’s Level
Students will describe the historical development of hunting practices.	1
	Understand
Students will analyze how hunting has changed over time, including laws, techniques, and cultural perceptions.	3
	Analyze
Students will explain the development of hunting education programs and their purposes.	2
	Analyze

Priority Standard: Evaluate hunting ethics and their importance in modern practices. *(derived from MDC “[Hunter Education](#)” course)*

Students will identify key ethical principles in hunting, including fair chase, respect for wildlife, and legal responsibilities.	1
	Understand
Students will explain the importance of ethical behavior in hunting for conservation and safety.	2
	Analyze
Students will evaluate real-world scenarios to determine ethical or unethical hunting practices.	3
	Evaluate

Priority Standard: Explain and demonstrate safe and responsible use of firearms in hunting, including the consequences of improper use. *(derived from MDC “[Hunter Education](#)” course)*

Learning Targets	Webb’s DOK Level
	Bloom’s Level
Students will analyze different scenarios and demonstrate safe firearm practices in each.	3
	Evaluate
Students will explain why practicing firearm safety is important in hunting and related activities.	2
	Analyze
Students will identify and explain the consequences of improper firearm use.	2
	Analyze

Essential Questions:

1. What is the purpose and significance of hunter education?
2. What is the importance of the North American Model of Wildlife Conservation?
3. What are the 10 Safe Shooting Rules?
4. Why are the ethics of hunting important?

Enduring Understanding/Big Ideas:

1. Hunter education's goal is to produce safe, knowledgeable, responsible, and involved hunters who understand the importance of using firearms safely, complying with hunting laws and behaving ethically. It ensures effective management of the state's wildlife populations.
2. It prevents extinction and ensures sustainable wildlife populations through public trust stewardship, scientifically based management, and a "user-pays, user-benefits" funding system.
3. Treat every gun as if it's loaded. Always point the muzzle in a safe direction. Be sure of your target *and beyond*. Never point a gun at anything you don't want to shoot. Unload guns when not in use. Store guns and ammunition separately. Be sure the barrel and action are clear of obstructions. Never climb a fence or tree, cross a log or stream, or jump a ditch with a loaded gun. Never shoot a bullet at a flat, hard surface or water. Never consume alcoholic beverages or drugs when handling a firearm.
4. Hunting ethics guide responsible decision-making and respectful behavior toward wildlife, landowners, and other outdoor users. Ethical hunting supports conservation, fair chase, and the long-term sustainability of wildlife populations.

Academic Cross-Curricular Words	Content/Domain Specific
Identify	Fair Chase
Demonstrate	Carrying Capacity
Describe	Ammunition
Distinguish	Muzzle
Determine	Ethics
Define	Firearm Actions
Evaluate	Safety
Explain	
Summarize	

Unit Vocabulary**Unit Vocabulary: Resources for Vocabulary Development:**

Missouri Department of Conservation

Topic 1: History and Ethics of Hunting

Engaging Experience 1

Title: History of Hunting

Suggested Length of Time: 1-2 Days

Standards Addressed

Priority:

- Analyze the history and development of hunting education practices over time.
(derived from MDC "[Hunter Education](#)" course)
- Explain the role of hunting in conservation and natural resource management.
(derived from MDC "[Hunter Education](#)" course)

Detailed Description/Instructions: Students will demonstrate an understanding of the history and how hunter education developed and the effects it has had on the environment.

- Students create a visual timeline showing how hunting education evolved from early survival skills to modern safety certification programs including specific reasons why mandated programs became a priority.
- Explore other states' hunting requirements and compare them to Missouri's requirements.
- Present on how hunting license fees support wildlife management with specific examples found around the state.
- Recognize how regulated hunting can benefit natural resources and wildlife.
- Construct examples that represent understanding of the "Seven Sisters" in the North American Model of Wildlife Conservation.

Engaging Experience 2

Title: Ethics of Hunting

Suggested Length of Time: 2-3 Days

Standards Addressed

Priority:

- Evaluate hunting ethics and their importance in modern practices. *(derived from MDC “[Hunter Education](#)” course)*
- Explain the role of hunting in conservation and natural resource management. *(derived from MDC “[Hunter Education](#)” course)*

Detailed Description/Instructions: Students will identify the ethics of hunting and how it protects the hunter, natural resources, wildlife, landowners and non-hunters.

- Construct your own definition of “Ethical Behavior” and explain if those behaviors change while hunting.
- Identify situations when the “Fair Chase Principle” would be in effect.
- Examine personal decision making when presented with certain hunting situations that require a hunter to ask themselves “Is it safe, Is it legal, Is it ethical?”

Topic 2: Firearm Safety

Engaging Experience 1

Title: Hands On Practice

Suggested Length of Time: 3-4 Days

Standards Addressed

Priority:

- Explain and demonstrate safe and responsible use of firearms in hunting, including the consequences of improper use. *(derived from MDC “[Hunter Education](#)” course)*

Detailed Description/Instructions: Students will identify and demonstrate how to use a firearm safely according to “Today’s Hunter in Missouri” expectations.

- Recite the number one rule of firearm safety.
- Identify and explain the importance of 3 fundamentals to good marksmanship.
- Demonstrate 4 rifle-firing positions (prone, sitting, standing, kneeling)
- Demonstrate understanding of Safe Zone of Fire and proper Field-Carries when in a group of 2 or more people (Sling, Trail, 2-Handed, Shoulder, Cradle, Elbow/Side Carry)
- Demonstrate how to safely cross fences and other obstacles while in possession of a firearm.
- Demonstrate how to safely load and unload 5 different firearm Actions (Hinge, Bolt, Lever, Pump, Semi-Automatic)

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
History and Ethics of Hunting	History of Hunting	Students will demonstrate an understanding of the history and how hunting developed.	1-2 days
History and Ethics of Hunting	Ethics of Hunting	Students will identify the ethics of hunting.	2-3 days
Firearm Safety	Hands on Practice	Students will identify and demonstrate how to use a firearm safely.	3-4 days

Engaging Scenario

Engaging Scenario (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

Students can become hunter certified by a professional instructor at the end of the unit. The students will show competency by scoring an 80% or higher on the Missouri Hunter's Ed written test and by demonstrating safe firearm handling practices of 5 different Actions to pass the requirements before receiving their "Hunter Education" certification.

Unit 4: Fishing

Subject: Hunting, Camping, and Fishing

Name of Unit: Fishing

Length of Unit: 10 Days

Overview of Unit: Students will gain an understanding of basic fishing equipment, techniques to cast accurately, proper fish handling, tying lures and bait to line, identifying Missouri fish and habitats, and state laws and regulations.

Priority Standards for unit:

- Students will be able to identify proper equipment to use when fishing and demonstrate safe techniques for casting. *(from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))*
- Students will be able to demonstrate how to tie a knot and bait a hook. *(from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))*
- Students will be able to name and identify physical characteristics of common fish of Missouri, external parts of a fish and how to handle them safely. *(from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))*
- Students will be able to describe fishing laws and regulations. *(from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))*

Unwrapped Priority Standards:

Priority Standard: Students will be able to identify proper equipment to use when fishing, how to care for a rod and reel, and demonstrate safe techniques for casting. (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Learning Targets	Webb's DOK Level
	Bloom's Level
Identify parts of a spin cast Fishing rod and reel	1
	Understand
Demonstrate the 6 steps of correct technique of a forehand, overhead, and back hand cast. (Grip, Stance, Aim, Cast, Release, Follow Through)	2
	Apply
Identify basic fishing lures and characteristics (spinnerbaits, crankbaits, surface lures, soft plastic lures, jigs, spoons, flies, live bait)	1
	Understand
Explain how factors such as weather and type of fish trying to catch can affect their choice of lure selection	3
	Analyze

Priority Standard: Students will be able to demonstrate how to tie a knot and bait a hook (from MDC’s “Discovering Nature-Fishing” [Instructor’s Guide](#))

Learning Targets	Webb’s DOK Level
	Bloom’s Level
Demonstrate how to tie an Improved Clinch Knot	2
	Apply
Demonstrate how to attach a hook on the fishing line	2
	Apply
Describe how to bait a hook	1
	Understand

Priority Standard: Students will be able to name and identify common fish of Missouri, external parts of a fish, and how to handle them safely (from MDC’s “Discovering Nature-Fishing” [Instructor’s Guide](#))

Learning Targets	Webb’s DOK Level
	Bloom’s Level
Describe characteristics of a Bluegill, Hybrid Sunfish, Largemouth Bass, Channel Catfish, and Rainbow Trout	1
	Understand
Identify external fish anatomy and how they are used for survival	2
	Understand
Demonstrate safe fish handling techniques	2
	Apply

Priority Standard: Students will be able to describe fishing laws and regulations (from MDC’s “Discovering Nature-Fishing” [Instructor’s Guide](#))

Learning Targets	Webb’s DOK Level
	Bloom’s Level
Explain why fishing regulations and seasons are necessary	3
	Analyze
Explain the importance of having a valid fishing license and when exceptions are allowed	2
	Understand
Explain the difference between the Daily Limit and the Possession Limit	3
	Understand
Explain the purpose of the Length Limit of a fish	3
	Analyze
Demonstrate how to measure a fish	2
	Apply
Identify common etiquette when fishing	1
	Remember

Essential Questions:

1. How does understanding fishing equipment improve success and safety while fishing?
2. How do you care for a rod and reel?
3. How do different casting and rigging techniques affect fishing success?
4. How can you identify the different types of game fish?
5. Why is proper fish handling important during catch-and-release fishing?
6. How do ethical fishing practices protect fish populations and aquatic habitats?
7. How do fishing laws and licensing requirements promote conservation and fair access to natural resources?

Enduring Understanding/Big Ideas:

1. Understanding fishing equipment helps anglers choose the right rod, reel, hook, lure, and line for the type of fish they are trying to catch.
2. Taking care of a rod and reel includes inserting a spool of line correctly, checking for damaged or twisted line before using, and storing it properly.
3. Different casting and rigging techniques allow anglers to present bait or lures more naturally while moving through the water. Accurate casting helps place the bait where fish are feeding.
4. Game fish can be identified by their physical characteristics such as body shape, color patterns, markings, fin placement, and mouth size. Habitat and how it feeds can also help to identify the type of fish.
5. Proper fish handling reduces stress, injury, and increases the fish's chances of survival after release. Acceptable practices would be holding the fish appropriately according to its size, fin placement, and hook attachment. Using wet hands to protect the protective slime layering, minimizing time out of water, using hemostats when necessary and releasing the fish by sliding it back into the water softly.
6. Following the "Leave No Trace" principles as well as properly disposing of your fishing line, lures, trash, and food waste in a trash receptacle keeps the environment clean. Littering can harm both land and aquatic wildlife and habitats.
7. Ethical fishing practices, such as following regulations, respecting limits, and avoiding waste, help maintain balanced fish populations. These practices reduce overfishing and protect habitats from damage so future anglers have an opportunity to fish the same location. Funds from purchasing a fishing license are put toward restoring habitats, stocking lakes and rivers, and building boat docks on public water.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Identify Demonstrate Describe Distinguish Determine Define Evaluate Explain Summarize	Angler Spincast Rod Open Faced Reel Drag Rigging Up Lure/Bait Hook Bobber Casting Safety Hemostat Playing the Fish Setting the Hook Fishing Regulations Safe Handling Techniques

Resources for Vocabulary Development:

- [“Discover Nature - An Introduction to Fishing”](#) -Student/Teacher booklet from Missouri Department of Conservation
- [Missouri Department of Conservation: Fishing](#) -Assorted Fishing resources from Missouri Department of Conservation

Topic 1: Fishing Equipment

Engaging Experience 1

Title: Rod and Reel

Suggested Length of Time: 1 Day

Standards Addressed

Priority:

- Students will list the parts and functions of a spincast fishing rod and reel (from MDC’s “Discovering Nature-Fishing” [Instructor’s Guide](#))
- Students will describe the advantages and disadvantages of a spincast vs. open faced reel (from MDC’s “Discovering Nature-Fishing” [Instructor’s Guide](#))
- Students will demonstrate the care and maintenance of a rod and reel. (from MDC’s “Discovering Nature-Fishing” [Instructor’s Guide](#))

Detailed Description/Instructions: Using the fishing poles provided by the Missouri Department of Conservation, the teacher will identify and explain the functions on a Spincast Rod and Reel (Thumb/Release Button, Drag Adjustment, Line Guides, Reel Handle).

In small groups, students are given a pole to practice their understanding by naming the main parts and explaining the functions of each to others in the group. Refer to page 9 and 10 of the “Introduction to Fishing” Instructor Guide Booklet.

Encourage students to refer to the “Introduction to Fishing” Student Booklet on pages 3 and 7 to compare and contrast the similarities and differences of the spincast reel and the open face reel. What are some reasons why one angler may choose one type of rod and reel over the other?

Students research common issues anglers experience with a Spincast Reel and an Open Face Reel and discuss troubleshooting techniques to reduce the chance of a problem occurring.

Topic 2: Knot Tying

Engaging Experience 1

Title: Tying and Improved Clinch Knot

Suggested Length of Time: 2 Days

Standards Addressed

Priority:

- Students will be able to demonstrate the proper way to tie an improved clinch knot to tie a hook on a fishing line. (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Detailed Description/Instructions: Using the bolts and paracord line provided by the Missouri Conservation Department the teacher demonstrates tying the Improved Clinch Knot explaining the step by step process on page 25 and 26 of the "Introduction to Fishing" Instructors Guide.

Pair students together with one bolt and piece of rope and have Partner 1 explain the step by step instruction to Partner 2 as they are tying the knot. Switch partner roles.

Engaging Experience 2

Title: Rigging the Line

Suggested Length of Time: 1 Days

Standards Addressed

Priority:

- Students will be able to demonstrate the proper way to attach a hook, sinker, and bobber on a fishing line. (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Detailed Description/Instructions: (*Finger nail clippers and needlenose pliers will be useful for the following activities*) Teacher will distribute 1 hook, 1 sinker, and 1 bobber to each student and remind them about safety precautions of the edge of the hook. (MDC Supplies)
If the hook penetrates the skin- STOP! Do Not pull it straight out. Refer to teacher instructions.

Using the same technique as with the bolt and string of rope, students will tie a hook onto the fishing line. Offer the option for students to hold the hook for a partner the first time of stringing the line as it makes the process easier. Once comfortable with the fine motor skills encourage each student to practice tying the knot by themselves.

Ask students to research the Palomar Fishing Knot and the Double Surgeon's Loop Fishing Knot using the following resources:

1. "[8 Fishing Knots to Know](#)" from ScoutLife.org
2. "[Know Your Catch: Your Guide to Fish Identification](#)" (pages 16-23) from Missouri Department of Conservation

Allow students to practice tying these 2 knots, first with the bolt and piece of rope, then with a hook and fishing line to determine which knot of the 3 they are more successful in tying.

Discuss when an angler would prefer to use the Palomar or Double Surgeon's Loop?

-Palomar knot is an extremely strong knot often retaining the strength of the line, resistant to slipping, easy to tie, and can be used to secure hooks, swivels, and lures, tied close to the eye of an attachment, best used with braided fishing line.

-Double Surgeon's Loop is a loose fixed loop allowing the lures to move freely in water, best used when tying line to another unequal diameter of line to connect the two (line to lure loop)

-Inappropriate knots can reduce line strength by over 20% causing them to break under the high pressure of a fighting fish.

Instruct students to attach the bobber 2-3 feet from the end of the line and a split-shot weight about 1 foot from the end of the line following the step by step instructions on page 16 and 17 of the "Introduction to Fishing" Instructors Guide.

Topic 3: Casting

Engaging Experience 1

Title: Casting Technique

Suggested Length of Time: 3 Days

Standards Addressed

Priority:

- The student will be able to demonstrate 3 types of casts safely and successfully. (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Detailed Description/Instructions: The teacher will explain the importance of safe casting by always being aware of your surroundings. Emphasizing awareness of the space above your head as well as people or objects located behind the caster. Knowing where the rod tip is located at all times is good practice for when a hook is attached. Model the 6 steps to an overhand cast found on pages 11-13 of the "Introduction to Fishing" Instructor Guide. (Grip, Stance, Aim, Cast, Release, Follow Through)

Tips for Success

- **Avoid Overpowering:** A smooth, quick snap is more effective than an aggressive, hard swing.
- **Timing:** Releasing the button too early sends the bait too high; releasing too late makes it hit the ground.
- **Targeting:** Point the rod tip directly at your target upon release to ensure accuracy.

Allow students to practice the overhand cast technique without a specific target focusing on the 6 steps. If students can repeatedly cast in a smooth forward motion, progress to placing a target roughly 10 paces away from the caster for them to practice aiming at a target. Increase the distance of the target depending on success rate.

Using the "Back Yard Bass" as targets with the Rubber Stoppers attached as the hook is the recommended equipment of this activity.

Using the "Big Lunker" Backyard Casting Game with magnetic fish is the recommended equipment for a more advanced target practice. Magnets need to be attached to the fishing line to use this equipment.

Repeat the above demonstrations and individual practice activities for the Backhand and Forehand casts.

Topic 4: Fish Identification

Engaging Experience 1

Title: Types of Missouri Fish

Suggested Length of Time: 1 Day

Standards Addressed

Priority:

- Students will be able to name and describe physical characteristics of 5 Missouri fish (Bluegill, Hybrid Sunfish, Largemouth Bass, Channel Catfish, Rainbow Trout) (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Detailed Description/Instructions: Explore the Missouri Conservation booklets about fishing for a better understanding of the type of fish in Missouri and laws and regulations to protect aquatic species.

Engaging Experience 2

Title: External Anatomy of Fish and Proper Fish Handling

Suggested Length of Time: 1 Days

Standards Addressed

Priority:

- Students will be able to name the external parts of a fish and explain how fish use these parts. (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Detailed Description/Instructions: Teacher introduces lesson by flashing a picture of a stranger on the board for 15 seconds. Ask students to describe 3 main characteristics of the stranger. Answers may include height, weight, clothing color, color of skin, facial expression, facial hair, gender, etc... Explain that some of the same first impression characteristics in describing a person are also used in identifying fish. (*FISH* Length, Width = *HUMAN* Height, Weight... *FISH* Mouth Turned Down = *HUMAN* Facial Expression... *FISH* Markings = *HUMAN* Freckles... *FISH* Scale Colors = *HUMAN* Skin Color.

Using the stuffed animal fish and large poster board props provided by the MDC explain the characteristics and anatomy of specific fish and how to hold fish depending on where their fins are located and the weight and size of the fish.

Compare and contrast different fish identification apps and resources that can help an angler identify fish species.

Students research the fines and consequences when an angler keeps an improperly identified fish and it's an endangered species.

Resources:

Publication: "[Know Your Catch: Your Guide to Fish Identification](#)" from Missouri Department of Conservation

Publication: "[Introduction to Missouri Fishes](#)" from Missouri Department of Conservation

Blog Post: "[Best Ways to Identify Fish by Looking at Them](#)" by Jordan Ellis of Flop Industries

Topic 5: Laws and Regulations

Engaging Experience 1

Title: Missouri Fishing Laws

Suggested Length of Time: 1 Days

Standards Addressed

Priority:

- Students will be able to describe fishing laws and regulations of Missouri. (from MDC's "Discovering Nature-Fishing" [Instructor's Guide](#))

Detailed Description/Instructions: Explore resources of Missouri Fishing regulations established by the Missouri Department of Conservation and enforced by Conservation Agents. The regulations can be found in *A Summary of Missouri Fishing Regulations* and the *Wildlife Code of Conduct of Missouri* and are free publications.

Explain the importance of having a valid fishing license, when exceptions are allowed, how to obtain one, and how much it costs.

Explain the difference between the daily limit and possession limit and how measuring a fish correctly impacts these limits.

Practice measuring the stuffed animal fish using a ruler following the steps on pages 68- 69 of the "Introduction to Fishing" Instructors Guide.

Resources:

"[Fishing Regulations](#)" from Missouri Department of Conservation

Engaging Scenario

Engaging Scenario (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

The students will have a final fishing exam where they will apply all of the knowledge gained through this unit including different types of casting systems, maintenance of a rod and reel, and identifying the many different types of fish they can find in Missouri.

The students will apply the skills of baiting a hook, casting, and proper fish handling during a field trip to Platte Falls Conservation Area to go fishing.

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
Fishing Equipment	Rod and Reel	Students will identify the parts of a fishing pole.	1 day
Knot tying	Tying and Improved Clinch Knot	Students practice tying the Improved Clinch Knot by explaining and demonstrating the steps to a partner.	2 days
Knot Tying	Rigging the Line	Students safely practice tying and comparing fishing knots, determine appropriate knot use, and assemble a basic fishing rig with a hook, bobber, and sinker.	1 day
Casting Technique	Casting Technique	Students practice safe fishing casts, progressing from basic technique to target accuracy using overhand, backhand, and forehand casts.	3 days
Fish Identification	Types of Missouri Fish	Students will identify the different types of game fish there are in Missouri.	1 day
Fish Identification	External Anatomy of Fish and Proper Fish Handling	Students identify and handle fish using key physical traits, tools, and researching consequences of misidentifying protected species.	1 day
Laws and Regulations	Missouri Fishing Laws	Students will explore resources of Missouri Fishing regulations established by the Missouri Department of Conservation and enforced by Conservation Agents.	1 day

6. Archery

Subject: Hunt, Camp, Fish

Name of Unit: Archery

Length of Unit: 12 Days

Overview of Unit: This unit introduces students to the sport of archery. Students will learn how to safely handle equipment, practice correct shooting form, develop accuracy, identify the parts of the bow and arrow, learn how to set up the range, and concentrate through individual and group activities.

Priority Standards for the Unit:

- Demonstrate safe and responsible behavior on an archery range.
- Apply mental skills to improve archery performance.
- Apply the 11 Steps to Successful Archery to demonstrate proper form and evaluate to improve performance.
- Demonstrate proper setup, use, and care of archery equipment and range facilities.

Unwrapped Priority Standards:

Priority Standard: Demonstrate safe and responsible behavior on an archery range.	
Learning Targets	Webb's DOK Level
	Bloom's Level
Students will consistently demonstrate proper archery range procedures and safety rules during all shooting activities.	2
	Apply
Students will respond appropriately to archery whistle commands during range activities.	2
	Apply
Students will explain why safety is the most important responsibility of every archer on the range.	2
	Understand
Students will demonstrate safe handling of archery equipment before, during, and after shooting	2
	Apply

Priority Standard: Apply mental skills to improve archery performance.	
Learning Targets	Webb's DOK Level
	Bloom's Level
Students will demonstrate focus and controlled breathing during the shot process.	2
	Apply
Students will explain how mindset, focus, and breathing influence shooting accuracy and consistency.	3
	Analyze
Students will apply mental strategies to remain calm and consistent under performance pressure.	2
	Apply

Priority Standard: Apply the 11 Steps to Successful Archery to demonstrate proper form and evaluate to improve performance.	
Learning Targets	Webb's DOK Level
	Bloom's Level
Students will accurately recite the 11 Steps to Successful Archery in the correct order.	1
	Remember
Students will demonstrate proper shooting form by performing each of the 11 Steps consistently.	2
	Apply
Students will use the 11 Steps as a checklist to evaluate their own shooting performance.	2
	Apply
Students will identify which step(s) need improvement and make adjustments to improve accuracy and consistency.	3
	Evaluate

Priority Standard: Demonstrate proper setup, use, and care of archery equipment and range facilities.

Learning Targets	Webb's DOK Level
	Bloom's Level
Students will properly set up the archery range according to established safety guidelines.	2
	Apply
Students will demonstrate correct handling, storage, and care of archery equipment.	2
	Apply
Students will explain why proper range setup and equipment care are essential for safety and performance.	3
	Analyze

Essential Questions:

1. How does proper form and consistency affect accuracy in archery?
2. Why is safety the most important responsibility of every archer on the range?
3. How do focus, breathing, and mindset influence performance?
4. How can archers assess their performance and make adjustments to improve using the 11 Steps to Archery Success?

Enduring Understanding/Big Ideas:

1. Proper form creates a stable, repeatable shot. When an archer uses the correct stance, grip, anchor point, and follow-through every time, the arrow leaves the bow the same way on each shot. Consistency reduces variables, which means arrows group closer together and hit the target more accurately. Poor or inconsistent form causes unpredictable shots, even if the archer is aiming well.
2. Safety is critical because archery equipment can be dangerous if misused. Arrows travel at high speeds and can seriously injure people or damage property. Every archer is responsible for following range rules, shooting only when it's safe, and being aware of others. A safe range ensures everyone can practice confidently without risk of accidents.
3. Focus helps archers concentrate on their shot process rather than distractions or pressure. Controlled breathing calms the body, reduces shaking, and improves timing during the shot. A positive, calm mindset builds confidence and prevents panic or rushing. Together, these mental skills help archers shoot more smoothly and consistently.
4. Archers can use the 11 Steps as a checklist to identify where problems occur in their shot sequence. By reviewing each step—such as stance, anchor, aim, or follow-through—they can

pinpoint mistakes and make small corrections instead of guessing. Practicing with this step-by-step approach helps improve form, consistency, and overall performance over time.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Apply Identify Demonstrate Describe Distinguish Determine Define Evaluate Explain Summarize	Bow Arrow Target Quiver String Nock Fletching Tip Grip Dominate Eye Range Whistle Commands Dry Fire Stance Release Aim Compound Bow Long Bow Recurve Bow

Resources for Vocabulary Development:

- [National Archery in Schools Program](#)

Topic 1: Introduction to Archery

Subject: Hunt, Camp, Fish

Name of Unit: Archery

Length of Unit: 15 Days

Overview: This unit introduces students to the sport of archery. Students will learn how to safely handle equipment, practice correct shooting form, develop accuracy, identify the parts of the bow and arrow, and learn how to set up the range.

Engaging Experience: 1

Title: Procedures

Suggested Length of Time: 2 days

Standards Addressed:

Priority:

- Demonstrate safe and responsible behavior on an archery range.

Detailed Description/Instructions: Students will consistently demonstrate proper archery range procedures and safety rules during all shooting activities by responding appropriately to archery whistle commands during range activities.

Topic 2: Shooting

Subject: Hunt, Camp, Fish

Name of Unit: Archery

Length of Unit: 12 Days

Overview: This unit introduces students to the sport of archery. Students will learn how to safely handle equipment, practice correct shooting form, develop accuracy, identify the parts of the bow and arrow, and learn how to set up the range. This will include 11 Steps to Successful Archery.

Engaging Experience: 1

Title: Accuracy

Suggested Length of Time: 4 days

Standards Addressed

Priority:

- Apply the 11 Steps to Successful Archery to demonstrate proper form and evaluate to improve performance.
- Demonstrate understanding of every step and apply each technique properly before releasing the arrow.
- Practice the skill of Archery by aiming at the target and repeating consistent movements.

Detailed Description/Instructions:

Set up the range according to official distance regulations and continue practicing Archery with increased accuracy of arrows.

Engaging Scenario

Engaging Scenario (An Engaging Scenario is a culminating activity that includes the following components: situation, challenge, specific roles, audience, product or performance.)

The students will have written quizzes over the parts of a bow and arrow, safety procedures, and how to set up an archery range. A class archery tournament will be held at the end of the Unit to apply all skills.

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
Introduction to Archery	Procedures	Students will apply their knowledge of how to set up an Archery range and determine the meaning of different whistle commands.	2 day
Shooting	Accuracy	Students will practice archery by using the 11 Step technique to improve accuracy.	on going

Unit 6: Orienteering

Subject: Hunt, Camp, Fish

Name of Unit: Orienteering

Length of Unit: 6 Days

Overview of Unit: Students will gain an understanding of how to use a compass, read a map, and how to navigate from one location to another using orienteering skills.

Priority Standards for unit:

- Explain the principles of orienteering and the skills required for successful navigation in outdoor environments. *(derived from [teaching materials](#) of [Scouting America](#))*
- Demonstrate proper use of a compass, including identification of its parts, understanding magnetic declination, and applying bearings to navigate to destinations. *(derived from [teaching materials](#) of [Scouting America](#))*
- Interpret topographical maps by understanding symbols, scales, elevation, and terrain features to plan and follow a route. *(derived from [teaching materials](#) of [Scouting America](#))*
- Apply map and compass skills to accurately determine and communicate location, direction, and distance in various outdoor scenarios. *(derived from [teaching materials](#) of [Scouting America](#))*
- Analyze the relationship between map features, compass readings, and terrain to adjust navigation strategies in real-world conditions. *(derived from [teaching materials](#) of [Scouting America](#))*

Unwrapped Priority Standards:

Priority Standard: Explain the principles of orienteering and the skills required for successful navigation in outdoor environments. *(derived from [teaching materials](#) of [Scouting America](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
Students will define orienteering and explain its purpose in outdoor navigation.	1
	Understand
Students will describe the essential skills needed for successful orienteering, including map reading, compass use, and terrain assessment.	2
	Apply
Students will explain how knowledge of coordinates, terrain, and natural features assists with navigation.	2
	Analyze

Priority Standard: Demonstrate proper use of a compass, including identification of its parts, understanding magnetic declination, and applying bearings to navigate to destinations. *(derived from [teaching materials](#) of [Scouting America](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
Students will identify the parts of a compass (orienting arrow, magnetic needle, base plate, bezel, declination scale, direction of travel arrow, index line).	1
	Remember
Students will explain magnetic declination and how it adjusts compass readings based on location.	2
	Analyze
Students will demonstrate how to use a compass to follow a bearing to a designated point.	3
	Apply
Students will practice adjusting compass readings for declination to ensure accurate navigation.	3
	Analyze

Priority Standard: Interpret topographical maps by understanding symbols, scales, elevation, and terrain features to plan and follow a route. *(derived from [teaching materials](#) of [Scouting America](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
Students will identify map symbols and their meanings, including natural and man-made features.	1
	Remember
Students will explain the function of map scale and how to measure distance using it.	2
	Apply
Students will read contour lines to interpret elevation changes and terrain features.	2
	Analyze
Students will plan a route on a topographic map using key symbols, scale, and elevation information.	3
	Apply

Priority Standard: Apply map and compass skills to accurately determine and communicate location, direction, and distance in various outdoor scenarios. *(derived from [teaching materials](#) of [Scouting America](#))*

Learning Targets	Webb's DOK Level
	Bloom's Level
Students will determine their current location using a map and compass.	2
	Apply
Students will calculate direction and distance to a target location using bearings and map scale.	3
	Apply
Students will communicate their location accurately in case of an emergency or to coordinate group navigation.	2
	Apply
Students will use a map and compass together to travel safely between multiple points.	3
	Analyze

Essential Questions:

1. In what situations is it necessary to know your exact location?
2. Why would a compass be essential when navigating in the outdoors?
3. How does declination adjust your reference point on a map and compass?
4. Why is it important to understand the key on a topographical map?

Enduring Understanding/Big Ideas:

1. Knowing the exact location can help communicate precise directions in case of an emergency or ensure you arrive at the designated destination.
2. A compass is an instrument used for navigation and orientation that shows direction relative to the geographic cardinal directions.
3. Declination is the angle between the magnetic north and north labeled on a map and adjusts depending on where a person is located on Earth.
4. The scale on a map represents the incline of land elevation, provides distance measurements, shows natural features and man made structures.

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Apply Identify Demonstrate Describe Distinguish Determine Define Evaluate Explain Summarize	Orienteering Coordinates Terrain Compass Orienting Arrow Bearing Magnetic Needle Base Plate Declination Scale Scale Bezel Orienting Lines Direction of Travel Arrow Index Line

Resources for Vocabulary Development:

Missouri Department of Conservation

Topic 1: Compass

Engaging Experience 1

Title: How to Use the Compass

Suggested Length of Time: 1-2 days

Standards Addressed

Priority:

- The students will be able to identify parts of the compass and magnetic declination.

Detailed Description/Instructions: Students will understand how to use the compass and practice following bearings without going off course. Emphasize the importance of holding the compass on a flat surface. Notice the difference in bearing when the compass isn't held flat and how it changes the course of navigation.

Helpful Resources:

- [**A Beginner's Guide to Orienteering**](#): This video highlights orienteering as a fast-paced sport that combines physical endurance with mental strategy, requiring athletes to navigate through diverse terrains using only a map and a compass. Competitors must find the quickest route between various control points, making it a true test of both the mind and the body where the fastest time wins.
- [**Compass 101 - How to Use a Baseplate Compass**](#): This video provides a concise introduction to using a baseplate compass. It highlights why compass skills are still important in the age of GPS, introduces the basic parts of a compass, and explains how to hold and use it correctly to find your direction. The video concludes with a simple, step-by-step guide on aligning yourself with a desired direction using the compass.

Topic 2: Map

Engaging Experience 1

Title: How to Use a Map

Suggested Length of Time: 2-3 days

Standards Addressed

Priority:

- The student will be able to identify the map symbols in order to navigate the terrain.

Detailed Description/Instructions: The student will be able to identify orienteering lines and coordinates on the map and align the compass with the line of travel between two points. Explore different types of maps and identify the differences between topographical, satellite, and road maps.

Helpful Resources:

- [**Orienteering Part 1 - The Map**](#): This video introduces the concept of maps as essential navigation tools. It explains map scale, what features maps represent, and highlights different map types tailored for various terrains like orienteering, hiking, nautical, and city maps.

Topic 3: Course

Title: Navigation

Suggested Length of Time: 1-2 days

Standards Addressed

Priority:

- The students will demonstrate how to use the compass bearings and map orienting lines to travel to the next destination.

Detailed Description/Instructions: The students will align their map and compass together as they navigate the course. This will allow the students to adjust for declination and various landmarks to determine the easiest route.

Helpful Resources:

1. [Assorted Orienteering Resources from Scouting American](#)
2. [Orienteering Publication from Scouting American](#)

Engaging Scenario

Engaging Scenario: Creating a map and building a route plan on school grounds including several points for a peer group to travel between using navigation skills.

Summary of Engaging Learning Experiences for Topics

Topic	Engaging Experience Title	Description	Suggested Length of Time
Compass	How to Use the Compass	Students will identify symbols on a compass and how to use it correctly	1-2 days
Map	How to Use the Map	Students will identify symbols on a map and how to match it with compass bearings	2-3 days
Course	Navigation	Students will navigate from one location to the next using a map and compass to complete an orienteering course.	1-2 days

Unit of Study Terminology

Appendices: All Appendices and supporting material can be found in this course's shell course in the District's Learning Management System.

Assessment Leveling Guide: A tool to use when writing assessments in order to maintain the appropriate level of rigor that matches the standard.

Big Ideas/Enduring Understandings: Foundational understandings teachers want students to be able to discover and state in their own words by the end of the unit of study. These are answers to the essential questions.

Engaging Experience: Each topic is broken into a list of engaging experiences for students. These experiences are aligned to priority and supporting standards, thus stating what students should be able to do. An example of an engaging experience is provided in the description, but a teacher has the autonomy to substitute one of their own that aligns to the level of rigor stated in the standards.

Engaging Scenario: This is a culminating activity in which students are given a role, situation, challenge, audience, and a product or performance is specified. Each unit contains an example of an engaging scenario, but a teacher has the ability to substitute with the same intent in mind.

Essential Questions: Engaging, open-ended questions that teachers can use to engage students in the learning.

Priority Standards: What every student should know and be able to do. These were chosen because of their necessity for success in the next course, the state assessment, and life.

Supporting Standards: Additional standards that support the learning within the unit.

Topic: These are the main teaching points for the unit. Units can have anywhere from one topic to many, depending on the depth of the unit.

Unit of Study: Series of learning experiences/related assessments based on designated priority standards and related supporting standards.

Unit Vocabulary: Words students will encounter within the unit that are essential to understanding. Academic Cross-Curricular words (also called Tier 2 words) are those that can be found in multiple content areas, not just this one. Content/Domain Specific vocabulary words are those found specifically within the content.