



FOR YOUTH DEVELOPMENT®
FOR HEALTHY LIVING
FOR SOCIAL RESPONSIBILITY

YMCA Camp at Horsethief Reservoir

K-12 Outdoor Education & Outdoor Recreation Course Catalog:

Outdoor Science Education

Note: All Outdoor Science Education courses are designed as two-hour courses, but can be shortened to one-hour for day trips.

General Science & Science and Engineering Practices:

Course Name	Grade levels	Description (State/NGSS Standard alignment) Note: different lesson plans and activities are used for different grade level bands
Foundations of Scientific inquiry	k-2 3-5 6-8 9-12	Learn to think and act like a scientist through an introduction to the science and engineering practices. (SEPs)
Scientific inquiry in action (2 hour class)	k-2 3-5 6-8 9-12	Put the principles of scientific inquiry into action by creating and investigating your own scientific question. Note: it is recommended that this be done only on multi-day trips. (SEPs)
Request a class	k-12	Do you have an idea for a new class that you don't see on this list? Explain your educational goals and we will design a class to fit your needs.

Earth Science:

Course Name	Grade levels	Description (State/NGSS Standard alignment) Note: different lesson plans and activities are used for different grade level bands
Rocks and Geology	3-5 6-8	Learn about rock formation and the forces that change rocks and landforms over time. (4-ESS-1.1, 4-ESS-2.2, 5-ESS-2.1) (MS-ESS-1.4, MS-ESS-2.1)
Water Cycle and watersheds	k-2 3-5 6-8 9-12	Learn how water is cycled and recycled through an ecosystem and observe how changes in one location can have an impact on other places downstream. (2-ESS-2.3) (5-ESS-2.1, 5-ESS-2.2, 5-ESS-3.1, 5-LS-2.4) (MS-ESS-2.4) (HS-LS-2.5, HS-ESS-2.5)
*Water sampling and comparison	5-8 9-12	Use a variety of measures and instruments to compare different sources of water (5-ESS-3.1, MS-ESS-3.3, MS-ESS-3.4) (HS-LS-2.5, HS-LS-2.6, HS-ESS-3.4, HS-ESS-3.6)
Weather and clouds	k-2 3-5 6-8	Observe patterns in weather and explore the causes of specific weather events. (K-ESS-1.1, K-ESS-2.2, 2-ESS-2.3) (3-PS-1.3, 3-ESS-1.1, 3-ESS-2.1) (MS-ESS-2.5, MS-ESS-2.6, MS-ESS-3.2, MS-ESS-3.5)

Landforms and changes	k-2 3-5 6-8	Create a landscape on our beach, then observe how water, wind, and glaciers change the landscape (K-ESS-2.3, 2-ESS-1.1, 2-ESS-2.1, 2-ESS-2.2) (4-ESS-1.1, 4-ESS-2.1, 4-ESS-2.2, 5-ESS-3.1) (MS-ESS-1.4, MS-ESS-2.2, MS-ESS-2.3, MS-ESS-3.1, MS-ESS-3.3)
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Life Science:

Course Name	Grade levels	Description (State/NGSS Standard alignment) Note: different lesson plans and activities are used for different grade level bands
Animals and adaptations	k-2 3-5 6-8 9-12	Learn about the adaptations of various animals, learn to identify signs of animals, and observe and classify wildlife. (K-LS-1.1, 1-LS-1.1, 1-LS-1.2, 1-LS-2.1) (3-LS-2.1, 3-LS-3.1, 3-LS-3.2, 3-LS-3.3, 4-LS-1.1, 4-LS-1.2, 5-PS-3.1, 5-LS-2.2, 5-LS-2.4, 5-ESS-2.1) (MS-LS-2.1, MS-LS-2.2, MS-LS-4.3, MS-LS-4.4, MS-LS-4.6) (HS-LS-2.7, HS-LS-4.4, HS-LS-4.5)
Aquatic Ecosystems	k-2 3-5 6-8 9-12	Explore the organisms of the stream or lake, discuss the factors that impact biodiversity Note: can be combined with a canoeing class for a lake study. (K-ESS-1.2, K-ESS-2.1, 1-LS-1.3, 2-LS-1.1, 2-LS-2.1) (3-LS-1.1, 5-PS-3.1, 5-LS-2.3, 5-LS-2.4, 5-ESS-2.1, 5-ESS-3.1) (MS-LS-1.1, MS-LS-1.4, MS-LS-1.5, MS-LS-1.6, MS-LS-2.1, MS-LS-2.2, MS-LS-2.3, MS-LS-2.4, MS-LS-2.5) (HS-LS-1.5, HS-LS-1.6, HS-LS-1.7, HS-LS-2.2, HS-LS-2.3, HS-LS-2.4, HS-LS-2.6, HS-ESS-2.6)
Plants and Trees	k-2	What is a plant? How is it different from animals? Are plants alive? Learn the answers to these questions and observe the plants and trees of our forest. (1-LS-1.1, 2-LS-1.1, 2-LS-1.2, 2-LS-2.1)
Trees and Forestry	3-5 6-8 9-12	Learn about what makes our forests healthy and some of the things that can threaten the health of a forest ecosystem (3-LS-3., 5-LS-1.1, 5-ESS-2.1) (MS-LS-1.5, MS-LS-2.4) (HS-LS-1.5, HS-LS-1.7, HS-LS-2.1, HS-LS-2.6, HS-LS-4.4, HS-LS-4.5)
Fire in Forest Ecosystems	5-8 9-12	Learn about the critical role fire plays in our local ecology, then create a model matchstick forest and explore ways different types of growth impact the spread of wildfire. (5-LS-2.3, MS-LS-2.6) (HS-LS-2.2, HS-LS-2.5, HS-LS-2.6)
Trout Anatomy	k-2 3-5	Observe and learn the external anatomy and function of trout body parts. Note: Can be combined with a fishing class. (K-LS-1.1, 1-LS-1.1, 1-LS-1.2, 1-LS-2.1) (3-LS-2.1, 3-LS-3.1, 3-LS-3.2, 3-LS-3.3, 4-LS-1.1, 4-LS-1.2, 5-PS-3.1, 5-LS-2.2, 5-LS-2.4, 5-ESS-2.1)
Trout Dissection	6-8 9-12	Learn the internal anatomy and function of trout through a hands-on dissection lab. (MS-LS-1.1, MS-LS-1.2, MS-LS-1.3, MS-LS-2.3) (HS-LS-1.1, HS-LS-1.2)
Wetland ecology	2-5 6-8 9-12	Learn about the important role wetlands play in an ecosystem. (2-LS-1.1, 3-LS-3, 5-PS-3.1, 5-LS-2.3, 5-LS-2.4, 5-ESS-2.1, 5-ESS-3.1) (MS-LS-1.5, MS-LS-1.6, MS-LS-2.2, MS-LS-2.4, MS-LS-2.5) (HS-LS-1.6, HS-LS-1.7, HS-LS-2.1, HS-LS-2.2, HS-LS-2.3, HS-LS-2.4, HS-LS-2.6)

Physical Science:

Course Name	Grade levels	Description (State/NGSS Standard alignment) Note: different lesson plans and activities are used for different grade level bands
Forces and motion on the Y-Camp Challenges	k-2 3-5 6-8 9-12	How do forces impact the motion on our challenge course? Investigate forces, motion, and balance on one or more of our challenge elements. Note: You must also select one or more challenge course elements: Climbing Wall, High Ropes Circuit, Giant Swing, High Y, or Low Ropes Course (K-PS-1.1, K-PS-1.2) (3-PS-1.1, 3-PS-1.2, 4-PS-1.3, 5-PS-2.1) (MS-PS-2.1, MS-PS-2.2, MS-PS-2.4, MS-PS-3.1, MS-PS-3.2, MS-PS-3.5) (HS-PSP-1.1, HS-PSP-1.2, HS-PSP-1.3)
Matter	k-2 3-5 6-8	Observe a variety of materials found at camp and classify them by their characteristics. (1-LS-1.3, 2-PS-1.1, 2-PS-1.2) (5-PS-1.1, 5-PS-1.2, 5-PS-1.3) (MS-PS-1.1, MS-PS-1.2, MS-PS-1.5)
Energy	k-2 3-5 6-8	Explore ways different types of energy are used, changed, and lost to the environment (K-PS-2.1, K-PS-2.2, 1-PS-1.3) (4-PS-1.1, 4-PS-1.2, 4-ESS-3.1, 4-ESS-3.2) (MS-PS-1.4, MS-PS-3.3, MS-PS-3.4)

Outdoor Recreation

Note: Outdoor Recreation activities are 1-hour classes unless otherwise noted or combined with one of the outdoor science classes

Course Name	Grade levels	Description
Archery	3-12	Are you brave enough to test the archer in you with our recurve and compound bow? Our newly designed archery program is built to accommodate novice as well as intermediate archers.
Canoeing (2 hour class)	3-12	Learn basic canoeing strokes then spend time paddling around our serene no-wake reservoir.
Climbing wall	k-12	Our one-of-a-kind tower opens an entire world of climbing to your group's members. Created in the shape of Idaho, our tower provides unique bouldering and sport climbing options.
Fishing (2 hour class)	3-7	The fishing course includes instruction on fishing techniques and equipment and then time to catch fish in our stocked reservoir.
Giant Swing	7-12	A participant is hauled in the air by their 10-15 team members on belay. Once at a desired height, the participant releases themselves from a Snap Shackle and swings like a pendulum.
High ropes circuit (2 hour class)	5-12	Made up of 4 high ropes elements, each challenge is mounted 30-40 feet in the air and participants make their way across cables or balance beams all while safely belayed by one of our trained staff members. Note: This is recommended as a two-hour class, or in groups of 8 or less for a one-hour class
High V	5-12	The High V consists of two cables suspended between two poles. Participants work in pairs to traverse; beginning close together and getting further apart as they traverse, forming a "V".

Low ropes course (2 hour class)	k-12	Develop your teambuilding skills on a series of fixed elements. Our staff will lead your group through learning to problem-solve and use effective communication to conquer new challenges.
Mountain Biking	3-12	We have a full fleet of mountain bikes suitable for ages 10 up to adult. Our Y Camp staff can lead your group on a trek around camp and through the adjacent forest areas. Terrain includes old logging roads, single track, and some gravel roads.
Nature art	k-12	Use nature as the inspiration and/or medium for creating a work of art.
Pump track/BMX biking	k-5	Hop on a bike and have a go on our pump track. Race around curves and up and down small hills and other features.
Service project (timeline depends on project)	K-12	Give back to the local environment by taking on a project such as trail restoration, tree planting, removing invasive species, or another project recommended by land managers in the area.
Zip line	7-12	Our 600' zip line lets you fly across the wetlands and feel the wind in your face. Participants must be at least 12 years old (no exceptions).
Outdoor Safety (2 hour class)	k-2 3-5 6-8 9-12	Learn basic skills of survival in the outdoors including fire building, shelter making, signaling, and effective decision making in the outdoors. (K-2.H.1.1, K-2.H.5.1, K-2.H.7.1) (3-5.H.1.1, 3-5.H.5.1) (6-8.H.1.1, 6-8.H.5.1) (9-12.H.1.1, 9-12.H.5.1)
Wayfinding in the Outdoors (2 hour class)	3-5 6-8 9-12	What do you mean google maps don't work out here? Learn critical map, compass, and/or GPS skills for navigating in the backcountry. (3.SS.2.1, 4.SS.2.1, 4-ESS-2.2, 5.SS.2.1) (6-9.GWH.2.1)
Teambuilding (2 hour class)	k-12	Our facilitators can take your group through an amazing journey of teambuilding and discovery utilizing the Y's 4 values of Respect, Responsibility, Honesty, and Caring. (K-2.H.4.1) (3-5.H.4.1) (6-8.H.4.1) (9-12.H.4.1)

Evening Programs

Course Name	Grade levels	Description (State/NGSS Standard alignment) Note: different lesson plans and activities are used for different grade level bands
Night Hike	k-2 3-5 6-8	Learn about the adaptations of nocturnal animals and the way our own eyes adjust and respond to darkness. (1-PS-1.2, 1-PS-1.3) (4-PS-2.2, 4-LS-1.2, 5-ESS-1.1) (MS-PS-4.1, MS-PS-4.2)
Telescopes and astronomy	k-2 3-5 6-8 9-12	Observe and learn about the visible objects in the night sky with our telescopes. Note: This class can be added to a Night Hike or done as a stand-alone class (1-ESS-1.1, 1-ESS-1.2) (5-ESS-1.1, 5-ESS-1.2) (MS-PS-4.1, MS-PS-4.2, MS-ESS-1.1, MS-ESS-1.2, MS-ESS-1.3) (HS-ESS-1.3, HS-ESS-1.4)
Campfire program	k-12	Enjoy a fun night of silliness, songs, and stories. The Y-Camp staff will present a night that will not soon be forgotten.

Skit/Talent night	k-12	Show your skills with a student-led skit and talent night. Note: for stays of only one night, it is recommended that students prepare their talents before they come to camp.
Guest Speaker (subject to speaker availability)	k-12	Learn from the experts! Enjoy a presentation from a guest speaker from the National Forest Service, Idaho Fish and Game, Pioneer Skill Reenactment experts, or from one of our local Indigenous tribes.
STEM challenge	3-5 6-8 9-12	Put your engineering skills to the test in a stem challenge! Using limited materials work in a small team to create an invention or solution to a problem. (4-PS-1.3, 4-PS-1.4) (MS-PS-2.1) (HS-PSP-1.3, HS-PSP-2.3)
Campfire physical science	k-2 3-5 6-8	Learn about the chemical and physical changes that can take place when various substances are heated over a campfire (marshmallows anyone?). Note: This class can be added to a campfire or a skit/talent night (2-PS-1.4) (4-PS-1.2) (MS-PS-1.2, MS-PS-1.4, MS-PS-1.6, MS-PS-3.3, MS-PS-3.5)
Tie Dye	k-12	Bring a white shirt or other clothing (or buy one from the camp store) and make your own colorful creation in our arts and crafts area.
Village Campfire	k-12	Meet with your class or in smaller groups and spend the evening getting to know each other and making connections. A staff member will lead you through activities and questions to build your class community and develop trust.