

# Kindergarten — 2nd Grade

**CREATURE FEATURE** (Kindergarten): Students will become zoologists as they explore and discover different animal groups such as insects, sea life, mammals and more. Meet some of CSC's resident live animals. Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** K.L.1.1, K.L.1.2

**Math Goals:** K.CC.4; K.CC.5; K.MD.3; K.G.1

**ELA:** SL1, 2, 3, 4, 6

**LITTLE SCIENTISTS** (Kindergarten): Compare and classify objects in this fun-filled class. Learn the names of some science tools. Be ready to put on your safety glasses and experiment! Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** K.P.1.1, K.P.1.2, K.P.2.1, K.P.2.2

**Math Goals:** K.MD.2; K.MD.3; K.G.1

**ELA:** SL1, 2, 3, 6

**EXPLORING NATURE** (Grades K-2): Explore wetland and forest habitats. Discover the similarities and differences between plants and animals. Learn about their needs and how they change over time. Program held at Glenn Hilton Park. Available August – October, April – June.

**Time:** 50 minutes

**Kindergarten Goals:** Science - K.L.1.1, K.L.1.2, K.E.1.1, K.E.1.3; Math - K.CC.4, K.CC.5, K.G.1; ELA - SL1, 2, 3, 6

**First Grade Goals:** Science - 1.L.1.1, 1.L.1.2, 1.L.1.3, 1.L.2.1, 1.L.2.2, 1.E.2.2; ELA - SL1, 2, 3, 4, 6

**Second Grade Goals:** Science - 2.L.1.1, 2.L.1.2, 2.L.2.1, 2.L.2.2; ELA - SL1, 2, 3, 4, 5

**EARTHY MATTERS** (Grade 1): Classify and make discoveries about soil, rocks and minerals. Encounter creatures that live in the soil. Program held at CSC.

**Time:** 50 minutes

**Science Goals:** 1.E.2.1, 1.E.2.2, 1.L.1.1

**Math Goals:** 1.MD.2

**ELA:** SL1, 2, 3, 4, 5, 6

**PUSH ME, PULL ME** (Grade 1): Experiment with forces and balance and discover how pushes and pulls can make things move. Play with all sorts of magnets and make cool discoveries! Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 1.P.1.1, 1.P.1.2, 1.P.1.3

**ELA:** SL1, 2, 3, 4, 6

**UP IN THE SKY** (Grade 1): Gaze upward and identify the things found in the sky during day and night, and observe the moon's phases. Includes a viewing of *Orion*, the story behind the constellation. Program available only at CSC in the Millholland Planetarium.

**Time:** 50 minutes

**Science Goals:** 1.E.1.1, 1.E.1.2

**ELA:** RL2; SL1, 2, 3, 4, 6

**CIRCLES OF LIFE** (Grade 2): Compare the life cycles of butterflies, frogs, beetles, ants and ladybugs using manipulatives, puzzles, and more. Play a life cycle game, and build Mr. Potato Head "babies." See our live frogs and toads! Program available as outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 2.L.1.1, 2.L.1.2, 2.L.2.1, 2.L.2.2

**ELA:** SL1, 2, 3, 4, 5

**SOUNDS GOOD** (Grade 2): Make waves and vibrations while investigating the science of sound. Experiment with simple instruments and observe changes in pitch and volume. Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 2.P.1.1, 2.P.1.2

**ELA:** SL1, 2, 3, 4, 5

**WHEN IT RAINS, IT POURS** (Grade 2): Learn about solids and liquids and investigate further using magnifying glasses and microscopes. Use rain gauges, thermometers and anemometers to measure and describe weather conditions. Program available as outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 2.P.2.1, 2.P.2.2, 2.E.1.2, 2.E.1.4

**ELA:** SL1, 2, 3, 4, 5



# 3rd — 5th Grade

**BODY CONNECTIONS** (Grade 3): Investigate body systems, including a look at the skeleton and joints. Learn the importance of good nutrition and exercise, and discover the microbes that can make you sick. *Pair this with a viewing of Astronaut in the Millholland Planetarium.* Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 3.L.1.1, 3.L.1.2

**Healthful Living Goals:** 3.PCH.2.1; 3.NPA.1.1; 3.NPA.1.2; 3.NPA.2.3

**ELA:** SL1, 2, 3, 4, 6

**ECOSYSTEMS IN DEPTH** (Grade 3): Explore the living and nonliving factors in forest and wetland ecosystems with a special focus on seeds and soils. Program held at Glenn Hilton Park. Available August – October, April – June.

**Time:** 50 minutes

**Science Goals:** 3.L.2.1, 3.L.2.2, 3.L.2.3, 3.L.2.4

**ELA:** SL1, 2, 3, 4, 6

**MATTER MANIA** (Grade 3): Explore the properties of three states of matter and make some fascinating discoveries about how matter changes. Mix up your own slime and take it home! Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 3.P.2.1, 3.P.2.2, 3.P.2.3

**ELA:** SL1, 2, 3, 4, 6

**SKY SEARCHERS** (Grade 3): Take a look at our solar system and find out where Earth fits. See what's in our current night sky, and discover the secrets of light and shadows. Program available only at CSC in the Millholland Planetarium.

**Time:** 50 minutes

**Science Goals:** 3.E.1.1, 3.E.1.2

**ELA:** SL1, 2, 3, 4, 6

**EARTH, MOON AND STARS** (Grade 4): Astro-adventurers will explore the relationship between the earth, moon and stars. Master the meaning behind the moon's movement. Program available only at CSC in the Millholland Planetarium.

**Time:** 50 minutes

**Science Goals:** 4.E.1.1, 4.E.1.2

**ELA:** SL1, 4, 6

**MAGNETRICITY** (Grade 4): Learn about static and current electricity, build a circuit, investigate magnetic attraction, make an electromagnet & more. Don't miss this hair-raising program! Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 4.P.1.1, 4.P.1.2, 4.P.3.1, 4.P.3.2

**ROCK HOUNDS** (Grade 4): Be a geologist! Uncover the differences between rocks and minerals. Classify rocks based on their composition. Investigate properties

of minerals and perform tests to identify them. Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 4.P.2.2, 4.P.2.3, 4.E.2.1

**ELA:** SL1, 4, 6

**SQUID SCIENCE** (Grade 4): Dive in and discover the many characteristics of a squid and learn how their adaptations make them suited to life in the ocean. Take a peek at the inside, too. Additional materials fee of \$24 per class required. Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 4.L.1.2, 4.L.1.4

**ELA:** SL1, 4, 6

**ECOSYSTEMS IN DEPTH** (Grade 5): Explore the living and nonliving factors in forest and wetland ecosystems with a special focus on the interactions of plants and animals. Program held at Glenn Hilton Park. Available August – October, April – June.

**Time:** 1 hour, 20 minutes

**Science Goals:** 5.L.2.1, 5.L.2.2, 5.L.2.3

**ELA:** SL1, 3, 4, 6

**FIRE AND ICE** (Grade 5): Use your bare hands to cause a color change and make a liquid boil. Make fascinating, hands-on discoveries about conduction, convection and radiation. Be prepared to observe fiery demonstrations! Program available only at CSC.

**Time:** 50 minutes

**Science Goals:** 5.P.3.1, 5.P.3.2

**ELA:** SL1, 3, 4, 6

**INSIDE OUT** (Grade 5): Learn about the major systems of the human body by comparing them to that of a preserved frog. Students will work in teams of 4, unless otherwise requested. Additional specimen fees apply (\$4.50 per frog). Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 5.L.1.2

**Healthful Living Goals:** 5.PCH.4.2, 5.PCH.4.3

**ELA:** SL1, 3, 4, 6

**WEATHER UNDER PRESSURE** (Grade 5): Learn about the different factors that affect our weather. Discover how cloud formation is related to weather patterns and precipitation. Observe convection currents and the amazing effects of air pressure. *Pair this with a viewing of Force 5 in the Millholland Planetarium.* Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 5.E.1.1, 5.E.1.2, 5.E.1.3, 5.P.2.1

**ELA:** SL1, 3, 4, 6

# 6th — 8th Grade

**AN EYE OPENING EXPERIENCE** (Grade 6): Investigate concepts of light absorption, reflection and refraction. See for yourself how the eye works by dissecting a cow's eye. Students work in teams of 2-3 for the dissection. Additional specimen fees apply (\$3.00 per eye). Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 6.P.1.2, 6.P.3.2

**ELA:** SL1, 2, 4, 6

**SOLAR SYSTEM 101** (Grade 6): An examination of the unique features of the members of our solar system, and their influence on each other, including tides and eclipses. A review of space exploration, past and present. See it all on the dome! Program available only at CSC in the Millholland Planetarium.

**Time:** 50 minutes

**Science Goals:** 6.E.1.1, 6.E.1.2, 6.E.1.3

**ELA:** SL1, 2, 4, 6

**IT'S ELEMENTAL** (Grade 6): Beginning chemists meet here! An investigation into atoms, elements, and physical properties of matter. Experiment with density, volume and mass, and use your new science skills to identify an unknown element. Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 6.P.2.1, 6.P.2.2, 6.P.2.3

**ELA:** SL1, 2, 4, 6

**MICRO-INVESTIGATIONS** (Grade 7): Review the basics of plant and animal cells and their contents. Watch organelles in action to keep the cell alive. Observe several living microscopic organisms. Program held at CSC Wednesday through Friday only. Additional materials fee of \$20 required (will cover multiple classes on the same day).

**Time:** 1 hour, 20 minutes

**Science Goals:** 7.L.1.1, 7.L.1.2, 7.L.1.3

**ELA:** SL1, 2, 4, 6



**READY, SET, GO!** (Grade 7): What can frogs, rockets, and roller coasters teach you about energy and motion? What does friction have to do with hovercrafts? Find out in this action-packed class. Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 7.P.1.1, 7.P.1.2, 7.P.2.1, 7.P.2.2, 7.P.2.4

**ELA:** SL1, 2, 4, 6

**WILD WEATHER** (Grade 7): Learn about the different factors that affect our weather. Observe "lightning" and sling a psychrometer to determine humidity. *Pair this class with a viewing of Force 5 in the Millholland Planetarium.* Program available for outreach and at CSC.

**Time:** 50 minutes

**Science Goals:** 7.E.1.1, 7.E.1.2, 7.E.1.3, 7.E.1.4, 7.E.1.5

**ELA:** SL1, 2, 4, 6

**HYDROMANIA** (Grade 8): Investigate aquatic ecosystems. Capture and identify macro-invertebrates and explore how they interact with other living things and their habitat. Test for dissolved oxygen, pH and turbidity. Wear shoes that can get wet. Program held at Glenn Hilton Park. Available August – October, April – June. A classroom option at CSC is available upon request August – June.

**Time:** 1 hour, 20 minutes

**Science Goals:** 8.E.1.1, 8.E.1.3

**ELA:** SL1, 2, 4, 6

**RADICAL REACTIONS** (Grade 8): Review chemistry with a peek at the periodic table of elements and explore the basics of reactions with fiery demonstrations. Experiment with systems to test the Law of Conservation of Mass. Program available at CSC only.

**Time:** 50 minutes

**Science Goals:** 8.P.1.1, 8.P.1.2, 8.P.1.3, 8.P.1.4

**ELA:** SL1, 2, 4, 6

**SICK SCIENCE** (Grade 8): Delve into the microscopic world of viruses, bacteria, fungi and parasites. Perform a chemical experiment to determine how a classroom "epidemic" began and spread. Program available at CSC only.

**Time:** 50 minutes

**Science Goals:** 8.L.1.1, 8.L.1.2, 8.L.5.1

**ELA:** SL1, 2, 4, 6