

Kindergarten — 2nd Grade

LAB-TASTIC TOOLS (Kindergarten): Explore the world of scientific tools. Work in the CSC “lab” and learn to use the tools of science to measure and compare. Program available for Outreach and at CSC.

Time: 50 minutes

Science Goals: 4.01, 4.03 - 4.05

Math Goals: 3.04, 5.01

Language Arts Goals: 2.06, 4.01, 4.02

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: 1.01-1.03, 1.05

Math Goals: 2.01, 3.04, 4.01, 4.02, 5.01

Language Arts Goals: 2.06, 4.01, 4.02

BODY CONNECTIONS (Grades K-2): Investigate body systems, test your senses, learn the importance of good nutrition and exercise, and discover the microbes that can make you sick. Program available for Outreach and at CSC.

Time: 50 minutes

Kindergarten Science Goals: 1.01, 2.04, 5.01, 5.03, 7.02

First Grade Science Goals: 1.02, 5.01, 5.02, 8.02

Second Grade Science Goals: 1.02, 1.03, 3.02, 5.01, 5.02, 7.03, 8.03

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 1.01-1.03, 1.05, 3.03; Math 2.01, 3.02, 3.03; Language Arts 2.06, 4.01, 4.02

First Grade Goals: Science 1.01-1.05; Math 5.01, Language Arts 2.07, 3.01

Second Grade Goals: Science 1.01-1.04; Math 5.01, Language Arts 2.04, 2.08, 3.01, 3.03, 4.04, 4.05

UP IN THE SKY (Grades K-2): Gaze upward and identify the things found in the sky during night and day. Investigate constellations and watch the story of Orion.

Program available only at CSC.

Time: 50 minutes

Kindergarten Goals: Science 2.02, 2.03; Math 2.01, 3.01, 3.02; Language Arts 2.01, 3.04, 4.01, 4.03, 4.04

First Grade Goals: Science 4.01, 4.03; Math 2.01, 3.03; Language Arts 2.06, 2.07, 3.03, 4.01

Second Grade Goals: Math 2.01; Language Arts 2.08, 3.01, 3.03, 3.04, 4.04, 4.05

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: 2.01-2.04, 3.02

Math Goals: 2.01(a), 5.01

Language Arts Goals: 2.07, 3.01

MAD MIXTURES (Grade 1): Explore the properties of solids and liquids, and find out what happens when you mix them together. Sort materials of all kinds, experiment with weight and buoyancy, and create a liquid density column. *Pair this class with a viewing of Molecularium in the Millholland Planetarium. Program available for Outreach or at CSC.*

Time: 50 minutes

Science Goals: 3.01-3.05

Math Goals: 2.01, 3.03, 5.01, 5.03

Language Arts Goals: 2.06, 2.07, 2.09, 3.03, 4.01

SHAPE DETECTIVES (Grades 1-2): Use observation skills to study geometric shapes in animals, plants and natural objects in the world around you. Practice non-standard units of measurement and find the area of an animal’s track. Examine evidence and chart your results to determine the culprit in a shape mystery! Program available for Outreach or at CSC.

Time: 50 minutes

First Grade Goals: Math 1.01(b), 1.04, 2.01, 3.03, 3.04, 4.02

Second Grade Goals: Math 1.01(e), 1.03, 2.01(a), 4.02

SLIME MATTERS (Grade 2): Explore the properties of the three states of matter and make some fascinating discoveries about how matter changes. Create your own slime and take it home. *Pair this class with a viewing of Molecularium in the Millholland Planetarium. Program available for Outreach and at CSC.*

Time: 50 minutes

Science Goals: 3.01, 3.02, 3.04, 3.06

Math Goals: 1.05, 2.01

Language Arts Goals: 3.03, 4.04, 4.05

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: 4.01-4.05

Language Arts Goals: 2.04, 3.01, 3.03, 4.04, 4.05

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 class with a viewing of Astronaut in the Millholland Planetarium. Program available for Outreach and at CSC.*

Time: 50 minutes

Science Goals: 4.01-4.04;

Language Arts Goals: 1.04, 2.06, 2.08, 3.05, 4.01, 4.02

DIRTY SCIENCE (Grade 3): Investigate properties of soil and create a soil profile. Use a microscope to discover organisms that live in a compost pile. Program held at CSC.

Time: 50 minutes

Science Goals: 2.01, 2.02, 2.04, 2.05

Math Goals: 2.02 (a)

Language Arts Goals: 1.04, 2.08, 4.02

EARTH, MOON & STARS (Grades 3-5): Astro-adventurers will explore the relationship between the earth, moon and stars. You'll also master the meaning behind the moon's movement. Program available only at CSC.

Time: 50 minutes

Third Grade Goals: Science 3.01-3.06; Math 2.02, 3.01, 5.01; Language Arts 1.04, 2.06, 2.08, 4.01, 4.02

Fourth Grade Goals: Science 2.03, 2.04; Language Arts 2.09, 4.01, 4.02

Fifth Grade Goals: Science 2.06, 4.01, 4.02, 4.04, 4.05; Language Arts 2.09

SUPERMARKET MATH (Grades 3-4): Attention shoppers! Feeling cheated by your chips? Seriously short on cereal? Use balances to weigh food, and graph the results to investigate how supermarket products measure up.

Program available for Outreach and at CSC.

Time: 50 minutes

Third Grade Math Goals: 1.01(c), 1.02, 1.06, 2.01(b), 2.02(c), 4.01, 5.04

Fourth Grade Math Goals: 1.01(c), 1.04(a), 1.05, 4.01, 4.03, 5.01

Fifth Grade Math Goals: 1.01(c), 1.02(a), 1.03, 2.01, 4.01, 4.02

ECOSYSTEMS IN DEPTH (Grades 3-5): Explore the living and nonliving factors in forest and wetland ecosystems. Third graders will focus on soils and seeds, fourth graders will focus on adaptations, while fifth graders will study the interactions of plants and animals. Program held at Glenn Hilton Park.

Available August — October, April — June.

Time: 50 minutes for 3rd and 4th graders, 1 hour 20 minutes for fifth graders

Third Grade Goals: Science 1.01, 1.02, 2.01, 2.03, 2.04; Math 3.01; Language Arts 1.04, 2.06, 2.08, 4.02, 5.03

Fourth Grade Goals: Science 1.01-1.05; Math 2.01; Language Arts 2.09, 4.02

Fifth Grade Goals: Science 1.01-1.07;

Language Arts 2.01, 2.02, 2.08, 2.09, 4.02

MAGNETRICITY (Grade 4): Learn about current electricity by building simple circuits and discover the relationship between electricity and magnetism. Program available for Outreach and at CSC.

Time: 50 minutes

Science Goals: 3.02-3.04, 3.06, 3.08

Math Goals: 4.04

Language Arts Goals: 2.01, 2.02, 2.06, 2.09, 4.02

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: 1.01, 1.03, 1.04

ROCK HOUNDS (Grade 4): Become a geologist as you uncover the differences between rocks and minerals. Investigate the properties of minerals and discover everyday products in which minerals are used. Program available for Outreach and at CSC.

Time: 50 minutes

Science Goals: 2.01-2.05

Math Goals: 4.01, 4.03

Language Arts Goals: 1.02, 1.03, 2.02, 2.09, 4.02

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 class with a viewing of Force 5 in the Millholland Planetarium. Program available for Outreach and at CSC.*

Time: 50 minutes

Science Goals: 3.02-3.04

TOYING WITH MOTION (Grade 5): Experiment with things that fly, roll and balance, exploring concepts of force, gravity and inertia. Good introduction to units on forces and motion. Program available for Outreach and at CSC.

Time: 50 minutes

Science Goals: 4.01-4.07

Math Goals: 1.03

Language Arts Goals: 1.03, 2.01, 4.02

ANIMAL INNARDS (Grade 5): Let a CSC educator guide your students through the dissection of an animal or organ of your choice. Students work in teams of 2-4. Specimen options and their additional cost that will be added to the program fee are listed below.

Program available for Outreach and at CSC.

Time: 1 hour, 20 minutes for organisms, 50 minutes for organs.

Squid — \$4 each, Frogs — \$4.50 each

Cow eyes — \$3 each, Pig hearts — \$7 each

Perch — \$3 each, Fetal pigs — \$21 each

Science Goals: Nature of Science

Language Arts Goals: 2.09

6th — 8th Grade

ANIMAL INNARDS (Grades 6-8): Let a CSC educator guide your students through the dissection of an animal or organ of your choice. Students work in teams of 2-4. Specimen options and their additional cost that will be added to the program fee follow. Program available for Outreach and at CSC.

Time: 1 hour, 20 minutes for organisms, 50 minutes for organs.

Squid – \$4 each, Frogs – \$4.50 each
Cow eyes – \$3 each, Pig hearts – \$7 each
Perch – \$3 each, Fetal pigs - \$21 each

Sixth Grade Goals: Science 1.03, 7.03, 7.06

Seventh Grade Goals: Science 1.03, 4.03

Eighth Grade Goals: Science 1.03

Sixth – Eighth Language Arts Goals: 1.03, 1.04, 2.01, 6.01, 6.02

TOYING WITH ENERGY (Grade 6): Unleash a genie in a bottle, experiment with conduction blocks and boil liquid with your bare hands as you experiment with convection, sound and the Law of Conservation of Energy. Program available for Outreach and at CSC.

Time: 50 minutes

Science Goals: 6.01-6.04, 6.07

Math Goals: 1.02(b), 1.07, 4.03, 4.05, 5.04

Language Arts Goals: 1.03, 2.01, 6.01

SOLAR SYSTEM 101 (Grades 6-8): There's lots to learn about space. See the sun, moon, stars, planets, asteroids and comets in a new and dynamic way. After this crash course, we'll wrap space up with the forces that unite it all. Program available only at CSC.

Time: 50 minutes

Sixth Grade Goals: Science 1.09, 2.01, 2.03, 5.01-5.05, 6.05; Language Arts 1.03, 2.01

Seventh Grade Goals: Science 1.09, 2.01, 2.03, 3.01, 6.03, 6.04; Math 3.01; Language Arts 1.03, 2.01

Eighth Grade Goals: Science 1.09, 2.01, 2.03, 4.01; Language Arts 1.03, 2.01

HYDROMANIA (Grades 6-8): Investigate aquatic ecosystems. Capture and identify macro-invertebrates and explore how they interact with other living things and their habitat. Eighth graders will test for dissolved oxygen, pH and turbidity. Wear shoes that can get wet.

Program held at Glenn Hilton Park.

Available August – October, April – June.

Time: 1 hour, 20 minutes

Sixth Grade Goals: Science 1.01-1.03, 2.03, 7.01-7.03; Math 1.02(b), 2.01;

Language Arts 1.03, 1.04, 2.01

Seventh Grade Goals: Science 1.03; Language Arts 1.03, 1.04

Eighth Grade Goals: Science 1.01, 1.03, 1.05, 1.08, 1.09, 3.04, 3.05, 3.07, 3.08; Math 1.02, 4.01; Language Arts 1.03, 1.04, 2.01, 6.01

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: 1.01, 1.05, 1.07, 1.08, 3.05, 3.06

Language Arts Goals: 1.03, 1.04, 2.01

DNA DETECTIVES (Grade 7): Learn the basics of genetics and biotechnology as you work in science teams to isolate and extract real DNA. Specify *E.coli* or strawberry DNA extraction when scheduling. Discover more about our human genetic code.

Program available for Outreach and at CSC.

Time: 1 hour, 20 minutes

Science Goals: 1.01, 5.01, 5.02, 5.05, 5.06

Math Goals: 1.01, 1.03

Language Arts Goals: 1.03, 2.01, 6.01

NEWTON'S AMAZEMENT PARK (Grade 7): Experiment with gravity and Newton's laws of motion and discover what really holds you in your seat on a rollercoaster. Program available for Outreach and at CSC.

Time: 50 minutes

Science Goals: 1.01, 1.05, 1.08, 6.03-6.05

Math Goals: 1.03, 5.04

Language Arts Goals: 1.03, 2.01, 6.01

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 held at CSC.

Time: 50 minutes

Science Goals: 1.03, 1.06, 4.03, 4.06, 4.07

Math Goals: 1.02, 4.01

Language Arts Goals: 1.03, 1.04

MICRO-INVESTIGATIONS (Grade 8): 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 per day.)

Time: 1 hour, 20 minutes

Science Goals: 1.03, 6.01, 6.02, 6.04

Math Goals: 1.02, 4.01

Language Arts Goals: Language Arts 1.03, 2.01