

## Castlewood Canyon State Park School Programs

All of Castlewood's programs are correlated to Colorado Model Content Standards

### Cycles- Go- Round

#### Standards Correlation

- SC09 – GR. 3 – S.1 – GLE. 1: *Matter exists in different states, such as solids, liquids, and gases, and can change from one state to another by heating and cooling.*
- SC09 – GR. 3 – S.2. – GLE. 1: *The duration and timing of life cycle events such as reproduction and longevity vary across organisms and species.*
- SC09 – GR. 3 – S.3 – GLE. 1.: *Earth's materials can be broken down and/or combined into different materials such as rocks, minerals, the rock cycle (sic), formation of soil, and sand – some of which are usable resources for human activity.*

Suggested grade levels: K through 3<sup>rd</sup> grade

Program length: 1½ - 2 hour

**Theme:** Nature reuses and recycles everything.

#### Objectives:

1. Students will be able to describe the steps of the life **cycle**: birth, growth, reproduction (bearing seeds, having babies), death, and decomposition.
2. Students will be able to identify living and non-living things.
3. Students will be able to name the three stages of the water **cycle**: **evaporation, precipitation, and condensation.**

### Home Sweet Habitat

#### Standards Correlation

- SC09 – GR. 2 – S.2 – GLE. 1: *Organisms depend on their habitat's nonliving parts to satisfy their needs.*
- SC09 – GR. 2 – S.2 – GLE. 2: *Each plant or animal has different structures or behaviors that serve different functions.*

Suggested grade levels: 3<sup>rd</sup> – 6<sup>th</sup>

Program length: 2 - 2½ hours

**Theme:** Plants and animals cannot survive without a suitable **habitat** (home).

## (Home Sweet Habitat cont'd)

### Objectives:

1. Students will be able to define **habitat** and ecosystem. They will know the basic requirements of a home. It must provide food, water, shelter, and space in a suitable arrangement.
2. Students will be able to identify and describe at least three different **habitats** and the animals that would live in them. They should understand that, since animals come in different sizes and eat different things, there are many types of **habitats**.
3. Students will understand that animals develop special **adaptations** to their **habitats** that increase their ability to survive there and frequently limit their ability to survive elsewhere.
4. Students will be able to describe ways that they can protect wildlife **habitat**.

### Rock –n– Roll

### Standards Correlation

- SC09 – GR.3 – S.3 – GLE.1: *Earth's materials can be broken down and/or combined into different materials such as rocks, minerals, rock cycle (sic), formation of soil, and sand – some of which are usable resources for human activity.*
- SC09 – GR.5 – S.3 – GLE. 2: *Earth's surface changes constantly through a variety of processes and forces.*
- SC09 – GR.6 – S.3 – GLE. 1: *Complex interrelationships exist between Earth's structure and natural processes that, over time, are both constructive and destructive.*

Suggested grade levels: 3<sup>rd</sup> – 8<sup>th</sup>

Program length: 2 - 2½ hours

**Theme:** Rocks and minerals are almost always in motion, always changing – even though we may not perceive the changes in our lifetime.

### Objectives:

1. Students will be able to identify and explain the differences between **igneous**, **metamorphic**, and **sedimentary** rocks.
2. Students will be able to identify and describe at least two geologic processes that are occurring in the canyon. (e.g., **erosion** and beaches deposited by the stream)
3. Students will be able to describe the forces that created the **Castle Rock Conglomerate** and **rhyolite**.

## Webs of Life

### Standards Correlation

- **SC09 – GR.4 – S.2 – GLE.3:** *There is interaction and interdependence between and among living and nonliving components of systems.*

Suggested grade levels: 3<sup>rd</sup> – 8<sup>th</sup>

Program length: 2 - 2½ hours

**Theme:** Everything is interconnected in an **ecosystem**.

**Objective:** Discover the four different ecosystems of Castlewood Canyon. We will exercise our powers of observation as we examine the building blocks of each and learn how they are interdependent.

### Goals:

1. Students will be able to name the four different ecosystems (**grassland, montane shrubland, montane forest, riparian**) in CCSP.
2. Students will be able to compare and contrast the plants and animals of the four ecosystems.
3. Students will be able to describe how the plants and animals of each ecosystem are interconnected through food webs (interlocking food chains).

## Skins and Skulls

**Note:** This is an indoor program, however a short hike after the indoor portion is possible.

### Standards Correlation

- **SC09 – GR.2 – S.2 – GLE.2:** *Each plant or animal has different structures or behaviors that serve different functions.*

Suggested for all grade levels

Program length: 1 - 1½ hours.

### Goals

1. Participants will be able to recognize characteristics in skulls and skins that give clues to the identity and behavior of these animal inhabitants of Castlewood Canyon.
2. Participants will be able to distinguish between predators and prey using skull characteristics and dentition.

KEY:

SC09 – GR.5 – S.2 – GLE1:

Content area & year adopted – Grade level – Standard – grade level expectation

Science 2009 – 5<sup>th</sup> grade – Standard 2, Life – 1. *All organisms have structures and systems with separate functions.*

S.1 = Physical Science

S.2 = Life Science

S.3 = Earth Science

### Grade Level, Standard, & Recommended Program

Grade	State Standard	Recommended Program
Preschool	Physical education: Physical and Personal Wellness. Prevention and Risk Management.	**Nature Appreciation Hike
Kindergarten	Physical education: Physical and Personal Wellness. Prevention and Risk Management.	**Nature Appreciation Hike
1 <sup>st</sup>	Science; Life	1. Skins & Skulls (short version) 2. **Nature Appreciation hike
2 <sup>nd</sup>	Science; Life	1. Skins & Skulls, plus Nature hike 2. Home Sweet Habitat
3 <sup>rd</sup>	Science; Life Science; Earth	1. Cycles- Go- Round 2. Rock-n-Roll
4 <sup>th</sup>	Science; Life	1. Webs of Life
5 <sup>th</sup>	Science; Earth	1. Rock – n– Roll
6 <sup>th</sup>	Science; Earth	1. Rock – n– Roll
7 <sup>th</sup>	No direct Standards Correlation, but the best fit is the Science Standard.	With Adaptations: 1. Rock – n- Roll 2. Home Sweet Habitat 3. Skins and Skulls
8 <sup>th</sup>	No direct Standards Correlation, but the best fit is with the Life Science Standard.	With considerable adaptations: 1. Webs of Life
High School	No direct Standards Correlation, but the best fit is with Life and Earth Science Standards.	With considerable supplementation: 1. Rock –n- Roll 2. Skins & Skulls