

# **Kansas Science Standards List**

Below is a list of Next Generation Science Standards (NGSS) which are addressed at Field Station: Dinosaurs. Many of these standards are discussed during an original live show, game or activity found at a performance space (such as the Family Tent or Amphitheater) while others can be found on the signage throughout the park. In order to create the list below, our content was compared to the standards found at <a href="https://www.community.ksde.org/science">www.community.ksde.org/science</a>. For more details on how the standards are addressed by a specific show, see page 2.

# Kindergarten

K-LS1-1

## First

1-LS1-1

1-LS3-1

### Second

2-ESS1-1

2-LS4-1

## Third

3-LS2-1

3-LS4-1

3-LS4-3

3-LS4-4

3-LS3-1

3-LS1-1

3-LS4-2

## Fourth

4-LS1-1

4-ESS1-1

# Middle School

MS-LS1-4

MS-LS4-1

MS-ESS2-3

# **High School**

HS-LS2-8

HS-ESS2-2

HS-LS4-1



## Kindergarten

## K-LS1-1

The show, *T. Rex Feeding Frenzy*, talks about how similar conditions, soil, sunlight, plants and even some animals were present in the time of the T. Rex as are present today. T. Rex Feeding Frenzy discusses how animals with different types of teeth ate different types of foods. This show also discusses the different classifications of animals, based on what their diet consists of: carnivores, herbivores, piscivores, omnivore, and insectivore.

### First Grade

#### 1-LS1-1

Paleo Picasso/What Color is Your Dinosaur talks about external coloration and its role in survival, including using mud as a sunscreen (modeled from animals).

#### 1-LS3-1

Several parent/offspring pairs of dinosaurs are present in the park, demonstrating the similarities/differences between parents and offspring.

### **Second Grade**

#### 2-LS4-1

Backyard Fossil Hunter discusses the variety of dinosaurs and other prehistoric creatures and how it models differing adaptations to a variety of ecosystems and niches from aquatic to airborne. The structures such as cooling fins, flippers, and wings lend themselves to the discussion of the relationship between structure and function.

#### 2-ESS1-1

*Backyard Fossil Hunter* talks about the different kinds of rock that can be found, the conditions they are formed under, the speed at which they form and some characteristics of them.

## **Third Grade**

## 3-LS2-1

Evidence is presented that some of the prehistoric animals did form groups to promote survival. As you visit the trails, discussion about this evidence is presented on boards in front of many dinosaurs including compsognathus, velociraptor and hypsibema missouriensis, among others.

# 3-LS4-1

Extensive discussion and evidence is provided regarding fossil evidence of animals and their environments.

### 3-LS4-3 and 3-LS4-4

Paleo Picasso/What Color is Your Dinosaur discusses environmental fit due to coloration.

### 3-LS1-1

Many examples in the park show the trend of organism similarity in life cycle to prehistory.

### 3-LS3-1

Several parent/offspring pairs of dinosaurs are present in the park, demonstrating the similarities/differences between parents and offspring.

#### 3-LS4-2

Paleo Picasso/What Color is Your Dinosaur discusses color and other traits and how they provide advantages to survival.

## **Fourth Grade**

### 4-LS1-1

Paleo Picasso/What Color is Your Dinosaur discusses external features that aid in survival and reproduction, while the variation of structures represented by the animals demonstrates the variation possible, often directly linked to the function of the structures.

### 4-ESS1-1

The presence of Marine fossils in the local rocks highlights this standard. *Backyard Fossil Hunters* talks about the prevalence of marine fossils in the local rocks, and the cause for this. The Tylosaurus and Niobrarosaurus exhibits also discuss evidence for the changed landscape from Marine to Terrestrial.

#### Middle School

### MS-LS1-4

Paleo Picasso/What Color is Your Dinosaur talks about zebra coloration and behavior benefiting survival, as well as the general displays showing herding behavior, calls, and coloration variations.

## MS-LS4-1

Backyard Fossil Hunter discusses the differences in animals from 400 million years ago to 200 million years ago and provides fossil examples which support the change in life forms during that time

## MS-ESS2-3

*Backyard Fossil Hunter* discusses igneous and metamorphic rock, indicating that there is no native igneous rock in Kansas since the forces of plate tectonics have yet to push any to the surface and an active volcano hasn't been in Kansas in at least 400 million years.

## **High School**

### HS-LS2-8

Paleo Picasso/What Color is Your Dinosaur discusses group dynamics, specifically about zebras and how they blend together. Maiasaura and other dinosaurs in the park are represented with groups, or information is provided, to detail how group behavior was imperative to their survival.

## HS-ESS2-2

Meteor impact changed the ecosystem leading to extinction of the dinosaurs.

## HS-LS4-1

In *Great Moments of Discovery Theater*, the evolution of dinosaurs to modern animals is discussed, including how we came to understand and recognize that birds are the ancestors of dinosaurs. Empirical evidence, such as the grooves in dinosaur bones, prove the theory that birds evolved from dinosaurs.