

## **Explorer (Life Science Standards)**

### **MS-LS1-4**

I can use arguments and scientific reasoning to show how animal behaviors and plant structures increase successful reproduction.

### **MS-LS2-1**

I can analyze and interpret data that shows how resource availability affect populations in an organism.

### **MS-LS2-2, MS-LS2-3**

I can explain how energy flows through living and nonliving parts of an ecosystem, and how organisms interact in competitive, predatory, and mutually beneficial ways.

### **MS-LS2-4**

I can argue how changes to physical and living parts of an ecosystem affect populations.

### **MS-LS4-1, MS-LS4-2**

I can explain how the fossil record provides evidence for the evolution of life forms in the earth's history, and I can show how fossils link species from the past to the present.

### **MS-LS4-3**

I can visualize similarities in the development of embryo's across many species.

### **MS-LS4-4**

I can explain how genetic variations of traits in a population increase an individual's chances of successful reproduction.

### **MS-LS4-6**

I can use mathematical models to explain how natural selection may change traits over time.

## **Explorer (Earth Science Standards)**

### **MS-ESS2-5**

I can use evidence to show mixing air masses change weather conditions.

### **MS-ESS2-6**

I can use data to explain how uneven heating and rotation cause air and ocean currents on Earth.

**MS-ESS2-5, MS-ESS-6**

I can collect data and make a model that shows how air masses change weather conditions and determine climate.

**MS-ESS3-5**

I can question and evaluate factors that have caused global climate change.

**MS-ESS1-1**

I can explain the reasons for the moon's phases, eclipses and seasons.

**MS-ESS1-2**

I can use a model to describe how gravity holds galaxies and solar systems together.

**MS-ESS1-3**

I can explain the similarities and differences between objects in the solar system.

## **Explorer (Physical Science Standards)**

**MS-PS2-1**

I can apply Newton's third law to the motion of colliding objects.

**MS-PS2-2**

I can gather evidence to show that the change in an object's motion depends on the sum of forces and mass of objects.

**MS-PS2-4**

I can use evidence to explain how gravitational interactions depend on mass and distance.

**MS-PS3-1**

I can demonstrate the relationships of kinetic energy to mass and speed.

**MS-PS3-2**

I can use models to show how position affects amounts of potential energy.