# **Our Galaxy**

Correlated Standards by Grade Last Updated: 2024

**IMPORTANT**: Our classes have a base curriculum that can vary based on instructor, and some activities that match the standards below may not be taught. Please let us know if there is a standard below you would like us to focus on, and we will tailor our classes to make sure we address it!

# **Next Generation Science Standards (NGSS)**

# 5th Grade

5-ESS1-1. Support an argument that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth.

5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is directed down.

# Middle School (6-8)

MS-PS2-4. Construct and present arguments using evidence to support the claim that gravitational interactions are attractive and depend on the masses of interacting objects.

MS-ESS1-2. Develop and use a model to describe the role of gravity in the motions within galaxies and the solar system.

MS-ESS1-3. Analyze and interpret data to determine scale properties of objects in the solar system.

# **Alabama Course of Study (ACOS)**

### 4th Grade

### **Arts Education - Theater**

- 5. Make and discuss group decisions and identify responsibilities required to present a drama/theatre work to peers.
- 13. Share small-group drama/theatre work, with peers as audience.

### 5th Grade

### Science

SC.5.5. Make a claim, supported by evidence, that the gravitational force exerted by Earth pulls objects towards the center of Earth. (CCC: Systems and System Models)

### **Arts Education - Theater**

13. Present drama/theatre work informally to an audience.

### 6th Grade

#### Science

- SC.6.1. Manipulate models to demonstrate the patterns of motion of the sun, Earth, and moon. (CCC: Patterns)
- SC.6.3. Construct an evidence-based explanation of the role of gravity on the movement of natural and manmade objects within galaxies and the solar system. (*Scale, Proportion, and Quantity*) SC.6.4. Analyze and use data to determine scale properties and characteristics of objects in the solar system including sizes, distances, orbital periods, basic composition, and ability to support life. (*Scale, Proportion, and Quantity*)

### **Arts Education - Theater**

5. Contribute ideas and accept and incorporate the ideas of others in preparing or devising drama/theatre work.

### 7th Grade

### **Arts Education - Theater**

- 5. Demonstrate mutual respect for self and others and their roles in preparing or devising drama/theatre work.
- 13. Participate in rehearsals for a drama/theatre work that will be shared with an audience.

### 8th Grade

### Science

SC.8.12. Use a model to identify factors affecting the strength of noncontact forces, including magnetic, gravitational, and electrical forces, and demonstrate that fields exist even though the objects are not in contact. (*CCC: Cause and Effect*)

# Arts Education - Theater

5. Share leadership and responsibilities to develop collaborative goals when preparing or devising drama/theatre work.

# Mississippi College- and Career-Readiness Standards

### 4th Grade

### Arts Learning Standards - Theatre

- Cr2. Organize and develop artistic ideas and work.
  - 1.4.b. Make and discuss group decisions and identify responsibilities required to present a drama/theatre work to peers.
- Pr6. Convey meaning through the presentation of artistic work.
  - 1.4.a. Share small-group drama/theatre work, with peers as audience.

### 5th Grade

### Science

- P.5.6. Students will demonstrate an understanding of the factors that affect the motion of an object through a study of Newton's Laws of Motion.
  - 6.1 Obtain and communicate information describing gravity's effect on an object.
- E.5.8A Students will demonstrate an understanding of the locations of objects in the universe.
  - 8A.1. Develop and use scaled models of Earth's solar system to demonstrate the size, composition (i.e. rock or gas), location, and order of the planets as they orbit the Sun.
  - 8A.4. Construct scientific arguments to support claims about the importance of astronomy in navigation and exploration, including the use of telescopes, compasses, and star charts.
- E.5.8B Students will demonstrate an understanding of the principles that govern moon phases, day and night, appearance of objects in the sky, and seasonal changes.

# Arts Learning Standards - Theatre

- Pr6. Convey meaning through the presentation of artistic work.
  - 13. Present drama/theatre work informally to an audience.

### 6th Grade

### Science

E.6.8. Students will demonstrate an understanding of Earth's place in the universe and the interactions of the solar system (sun, planets, their moons, comets, and asteroids) using evidence from multiple scientific resources to explain how these objects are held in orbit around the Sun because of its gravitational pull.

E.6.8.5. Construct explanations for how gravity affects the motion of objects in the solar system and tides on Earth.

### Arts Learning Standards - Theatre

- Cr2. Organize and develop artistic ideas and work.
  - 1.6.b. Contribute ideas and accept and incorporate the ideas of others in preparing or devising drama/theatre work.

# 7th Grade

# Arts Learning Standards - Theatre

- Cr2. Organize and develop artistic ideas and work.
  - 1.7.b. Demonstrate mutual respect for self and others and their roles in preparing or devising drama/theatre work.
- Pr6. Convey meaning through the presentation of artistic work.
  - 13. Participate in rehearsals for a drama/theatre work that will be shared with an audience.

# 8th Grade

# Arts Learning Standards - Theatre

- Cr2. Organize and develop artistic ideas and work.
  - 1.8.b. Share leadership and responsibilities to develop collaborative goals when preparing or devising drama/theatre work.