**Major Concepts to be learned:**

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<tbody>
<tr>
<td>1.</td>
<td>Investigate how science is done</td>
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<tr>
<td>2.</td>
<td>How scientists work</td>
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<tr>
<td>3.</td>
<td>How gravity works</td>
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**Expected Skills to be demonstrated:**

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<tbody>
<tr>
<td>1.</td>
<td>Make hypothesis how gravity works</td>
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<tr>
<td>2.</td>
<td>Explain how gravity works</td>
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<td>3.</td>
<td>Discuss how scientist do their jobs</td>
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<td>4.</td>
<td>Explain why scientists use models and how models help scientists understand</td>
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**PA Standards/Anchors:**

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**Instructional Strategies:**

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<tbody>
<tr>
<td>Group work</td>
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<tr>
<td>Discussion</td>
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<td>Lecture</td>
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<td>Experiments/Projects</td>
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**Assessments:**

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<tr>
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<td>Worksheets</td>
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<td>Quizzes</td>
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<td>Projects</td>
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Grade Level: 6
Course Title: Science
Topic/Concept: Matter and Energy
Time Allotment: 9 weeks
Unit Sequence: 2

Major Concepts to be learned:
1. Matter and Energy

Expected Skills to be demonstrated:
1. Explore how different substances float on top of each other
2. Explore how to learn about something that cannot be seen
3. Identify measurements and physical properties of matter
4. Explore what chemical changes are
5. Compare and contrast physical changes and chemical changes
6. Compare and contrast chemical changes
7. Compare and contrast different kinds of mixtures
8. Compare and contrast metals, nonmetals, and metalloids

PA Standards/Anchors:
3.4

Eligible Content:
3.4.7

Instructional Strategies:
Group work
Discussion
Lecture
Experiments/Projects

Assessments:
- Worksheets
- Tests
- Quizzes
- Projects
**Grade Level:** 6  
**Course Title:** Science  
**Topic/Concept:** Cells and Classification of Living Things  
**Time Allotment:** 9 weeks  
**Unit Sequence:** 3

### Major Concepts to be learned:

1. Cells and classification of living things

### Expected Skills to be demonstrated:

1. Differentiate between living and nonliving things
2. Identify cells as a basic unit of living things
3. Explain why cells divide
4. Explore differences between cells of plants and animals
5. Compare and contrast photosynthesis and respiration
6. Explore how to classify living things
7. Explore movement of materials through barriers
8. Describe the kingdoms containing most microbes, and explain why viruses are not included among them

### PA Standards/Anchors:  

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### Instructional Strategies:  

| Group work  
Discussion  
Lecture  
Experiments/Projects |
|---------------------|

### Assessments:

- Worksheets
- Tests
- Quizzes
- Projects
Grade Level: __6____ Course Title: _Science_ Topic/Concept: _Astronomy_

Time Allotment: _9 weeks_ Unit Sequence: _____4

Major Concepts to be learned:

1. Astronomy

Expected Skills to be demonstrated:

1. Explore the different methods of learning about a planet
2. Describe the surface features of the Moon
3. Explain what astronomers study and their scientific method
4. Compare and contrast the outer planets
5. Explore how shadows on Earth change with the Sun’s position
6. Describe the evolution of the universe and its contents
7. Describe the Earth’s revolution and the cause of the seasons
8. Compare and contrast the inner planets

PA Standards/Anchors: 

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Instructional Strategies:

Group work  Discussion  Lecture  Experiments/Projects

Assessments:

- Worksheets
- Tests
- Quizzes
- Projects
**Grade Level:** 6  
**Course Title:** Science  
**Topic/Concept:** Restless Earth  
**Time Allotment:** 6 weeks  
**Unit Sequence:** 5

### Major Concepts to be learned:

1. Tectonic Plates  
2. Soil Production

### Expected Skills to be demonstrated:

1. Compare plate tectonics with other theories of crustal motion  
2. Evaluate continental drift and sea-floor spreading  
3. Identify examples of rocks that form from sediment and from other rocks  
4. Describe how to prepare for and predict earthquakes  
5. Relate volcanoes and plate tectonics  
6. Identify the forces that make and shape landforms

### PA Standards/Anchors:

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### Instructional Strategies:

- Group work  
- Discussion  
- Lecture  
- Experiments/Projects

### Assessments:

- Worksheets  
- Tests  
- Quizzes  
- Projects