

# Black Horse Pike Regional School District Curriculum

**Course Name: Life Skills Science: (SCMD)**

**Course Number: 154000**

## **PART I: UNIT RATIONALE**

### **WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?**

<b>Course/Unit Title:</b> <b>Life Skills Science/Astronomy</b>	<b>Unit Summary:</b>
<b>Grade Level(s):</b> <b>9-12</b>	<p>This unit will explore the Earth's place in the universe and its characteristics in comparison to other objects in our solar system which make it uniquely suited for sustaining life. The unit will begin with an overview of the organization of the universe and an exploration of developments that led to our current understanding of the universe. The focus will then shift to the evolution of the universe and the creation of our solar system as described by the Big Bang Theory. The organization of our solar system and the characteristics of our sun make it possible for life on Earth. Students will research the characteristics of different objects in our solar system such as planets, moons and asteroids and use this research to determine if human life could be sustained elsewhere in the solar system with the assistance of technology.</p>
<b>Essential Question(s):</b> - How do science and technology influence each other? -How are planets and other objects in space similar to and different from Earth? -What characteristics does our Sun have with stars? -Why is the Sun so important to our planet and life? -Why do we study our solar system and search for life on other planets? -What effects does gravity have on Earth?	<b>Enduring Understanding(s):</b> Students will be able to: <ul style="list-style-type: none"> <li>• Understand the development of scientific ideas is essential for building scientific knowledge.</li> <li>• Technology enables us to better understand Earth's systems and the impact on science.</li> <li>• The Earth and Moon systems effects on gravity.</li> <li>• Understand and identify the planets that make up our Solar System</li> <li>• Analyze the characteristics of Earth that make it uniquely suited in our solar system for life to exist.</li> <li>• Observe and understand the life of a star.</li> </ul>

## **PART II: INSTRUCTIONAL STRATEGIES AND RESOURCES**

### **DESCRIBE THE LEARNING TARGETS.**

After each target, identify the Core Curriculum Content Standards for Students with Severe Disabilities that are applicable.

**\*\*\*NOTE: Students who are enrolled in this course are students with significant cognitive disabilities, and are assessed and taught based on what they are capable of doing. Each student holds an IEP and is provided a tailored path to learn new academic skills. Therefore, not ALL students will be able to achieve or learn each target stated below. There is a balance between**

**challenging the student and attainability. As a result, all students will be assessed and placed into the appropriate learning target below and progress accordingly.**

<b><u>Learning Target</u></b>	<b><u>NJCCCS</u></b>
<ol style="list-style-type: none"><li>1. Discuss how our understanding of the universe and our solar system has changed as new technology has developed.</li><li>2. List and create a model of the planets in our Solar System.</li><li>3. Sequence the life cycle of a star as a poster or PowerPoint presentation.</li><li>4. Explain the importance of the Sun to the planet Earth.</li><li>5. Explain phases of the moon and effects the moon has on the Earth's gravitational pull.</li><li>6. Create a poster that shows how the tilt of the Earth on its axis affects seasonal variations on Earth.</li></ol>	<p><b>1. Science:</b> 5.1 A (1-3), 5.1 C (1-3), 5.1 D (1-2), 5.4 A (1, 6)</p> <p><b>2. Science:</b> 5.1 A (1-3), 5.1 C (1-3), 5.1 D (1-2), 5.4 A (5, 6)</p> <p><b>3. Science:</b> 5.1 A (1-3), 5.1 C (1-3), 5.1 D (1-2), 5.4 A (5, 6)</p> <p><b>4. Science:</b> 5.1 A (1-3), 5.1 C (1-3), 5.1 D (1-2), 5.4 A (5, 6)</p> <p><b>5. Science:</b> 5.1 A (1-3), 5.1 C (1-3), 5.1 D (1-2), 5.4 A (5, 6)</p> <p><b>6. Science:</b> 5.1 A (1-3), 5.1 C (1-3), 5.1 D (1-2), 5.4 A (5, 6)</p> <p><b>DML:</b> 1. EE.HS-ESS1-4 2.</p>
<p>DML:</p> <ol style="list-style-type: none"><li>1. Use a model of Earth and the Sun to show how Earth's tilt and orbit around the Sun cause changes in seasons.</li></ol>	

**Inter-Disciplinary Connections:**

Encompasses public speaking, technology, active listening, listening comprehension, creating models, PowerPoint presentations, posters.

**Students will engage with the following text:**

\*Not a text based program

### Students will write:

#### **Informal:**

- short answer response
- open-ended response
- daily warm ups
- discussion
- projects
- technology (laptops and iPads)

## **PART III: TRANSFER OF KNOWLEDGE AND SKILLS**

### **DESCRIBE THE LEARNING EXPERIENCE.**

#### **How will students uncover content and build skills.**

**Students will uncover and build skills through various classroom activities.**

- Real-life application
- Use of technology (iPad, laptops and SMART Board)
- Astrology Videos
- Role-playing activities
- Demonstrate knowledge through classroom games
- Brainstorming
- Problem solving activities

**Other learning experiences could include**

- Alternate lesson openers
- Warm-ups
- Think/pair/share activities
- Small group discussion
- Whole class discussion
- Critical thinking activities
- Independent practice
- Differentiated instruction

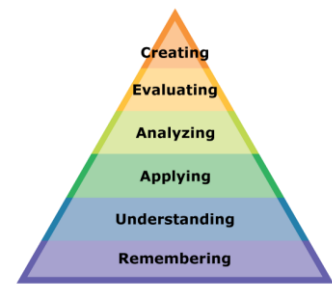
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- Help students become self-sufficient and independent members of society.
- Improve students' academic skills to enable them to live independently.
- To specifically meet the educational needs of students as written in their IEPs.
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## **PART IV: EVIDENCE OF LEARNING**

**IDENTIFY THE METHODS BY WHICH STUDENTS WILL DEMONSTRATE THEIR UNDERSTANDING OF CONTENT AND THEIR ABILITY TO APPLY SKILLS.  
IDENTIFY BLOOM’S LEVELS.**



### **Formative Assessments:**

The effectiveness of the instructional program will be based on teacher observations, students doing quality of work together, questioning strategies, self and peer assessment, student record-keeping, quizzes, warm-ups, class discussion, summary/reaction/journal writing, individual conferences, exit tickets and performance tasks.

### **Accommodations/Modifications:**

- Use multimedia equipment (iPads, laptops, etc...) to lessen reliance on text.
- Incorporate experiential and community based activities related to lesson theme.
- Include "hands on" activities (games, projects) within lectures/activities.
- Emphasize sensory experiences reflecting student’s learning style: auditory, multisensory, visual, physical movement/kinesthetic.
- Use graphic organizers.
- Complete assignments through oral reports, tapes, projects or other means to lessen amount of writing.
- Extend time limits for tests and assignments.
- Guided questions provided before, during and/or after video presentations to ensure the comprehension of the main ideas.
- Provide written rubric for all projects and review accordingly
- Provide samples of projects/presentations for students to use as a reference.
- Read test items that do not assess reading skills to students.
- Use models, manipulatives and other concrete materials to demonstrate concepts and solve problems.
- Have student repeat or rephrase assignments.
- Check for understanding frequently.
- Provide multiple practice sessions to reinforce a new skill/concept.
- Break problems into smaller pieces.
- Provide guided notes/handouts.
- Review needed skills prior to lesson.

### **Summative Assessments:**

“Hands-on” tests/labs and written tests

### Accommodations/Modifications:

- Use Pass/Fail Option.
- Provide checklists for solving problems.
- Provide teacher/student review before assignments
- Oral assessment (if needed)
- Read test items that do not assess reading skills to students.
- Extend time limits.
- Break problems and test sections into smaller pieces

### Performance Assessments:

Projects, presentations, labs and display of student work

### Accommodations/Modifications:

- Complete assignments through oral reports, tapes, labs, projects or other means to lessen amount of writing.
- Allow students extra time to complete projects.
- Provide students with an example of project for reference.
- Make a clear rubric for students to understand exactly what is expected.

# Black Horse Pike Regional School District Curriculum

## PART I: UNIT RATIONALE

### WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?

<b>Course/Unit Title:</b> Earth Science/Studying the Planet Earth	<b>Unit Summary:</b> Following the astronomy unit, students begin this unit with an understanding of how planets form and that complex life is unique to this planet. The Earth has gone through many transitions in its 4.5 billion year history. The Earth cooled to the point that a crust formed on its surface, tectonic activity ensued and the ocean basins filled with water. As life evolved, it entered into a complex interdependence with the planet's material and energy cycles. Students will learn how to use fossil evidence to track these changes with an eye to using the past to predict the future.
<b>Grade Level(s):</b> 9-12	
<b>Essential Question(s):</b> -What is Earth Science? -What transitions has Earth gone through towards its present condition? -How does evidence of Earth's past inform us about today's conditions?	<b>Enduring Understanding(s):</b> Students will be able to: <ul style="list-style-type: none"> <li>● List the main fields of Earth Science</li> <li>● Name tools used by Earth Scientists.</li> <li>● Describe the Earth's shape.</li> <li>● Locate the seven continents and oceans</li> <li>● Explain the rotation of the Earth.</li> <li>● Explain what a global grid is.</li> <li>● Identify fossils and past life on Earth.</li> </ul>

## PART II: INSTRUCTIONAL STRATEGIES AND RESOURCES

### DESCRIBE THE LEARNING TARGETS.

After each target, identify the Core Curriculum Content Standards for Students with Severe Disabilities that are applicable.

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<u>Learning Target</u>	<u>NJCCCS</u>
<ol style="list-style-type: none"> <li>1. Discuss and understand what Earth Science is.</li> <li>2. List the main fields of Earth Science and careers that exist in the world.</li> <li>3. Create a poster of the four main fields of Earth Science.</li> <li>4. Understand and create different types of maps (cartography, topography, etc..)</li> <li>5. Identifying landforms and create a diorama of one of the types of landforms. (mountain, volcano, etc...)</li> <li>6. Identify what fossils are and how old they are.</li> </ol>	<ol style="list-style-type: none"> <li>1. Science: 5.4 C (1-3) 5.4 B (1-2)</li> <li>2. Science: 5.4 C (1-3) 5.4 B (1-2)</li> <li>3. Science: 5.1.12 A.2, 5.4.12.B3</li> <li>4. Science: 5.4.6.B3</li> <li>5. Science: 5.4.6.B3</li> <li>6. Science 5.4.4.B1</li> </ol>
<b>DML:</b> 1.	<b>DML:</b>

### Inter-Disciplinary Connections:

Encompasses public speaking, technology, consumer, family and life skills, active listening, listening comprehension, interpersonal communication, and real-world problem solving

### Students will engage with the following text:

\*Not a text based program: We use **Attainment Company Inc.** products, **James Stanfield Company Inc.** products and other **supplementary materials** based on the student's needs.

### Students will write:

**Informal:**

- short answer response
- open-ended response
- daily warm ups
- summaries
- reflections

## **PART III: TRANSFER OF KNOWLEDGE AND SKILLS**

**DESCRIBE THE LEARNING EXPERIENCE.**

**How will students uncover content and build skills.**

**Students will uncover and build skills through various classroom activities.**

- Real-life application
- Use of technology (iPad, laptops and SMART Board)
- Step-by-step dramatizations (Videos)
- Role-playing activities
- Live action reality stories (Videos)

- Demonstrate knowledge through classroom games
- Brainstorming
- Problem solving activities

Other learning experiences could include

- Alternate lesson openers
- Warm-ups
- Think/pair/share activities
- Small group discussion
- Whole class discussion
- Critical thinking activities
- Independent journal writing
- Independent practice
- Differentiated instruction

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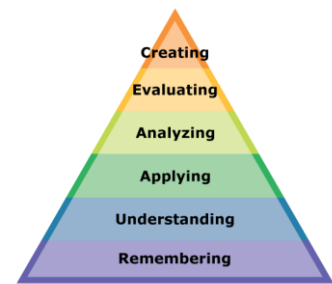
- Help students become self-sufficient and independent members of society.
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### Formative Assessments:

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### Accommodations/Modifications:

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### Summative Assessments:

"Hands-on" tests and written tests

### **Accommodations/Modifications:**

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## **WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?**

<b>Course/Unit Title: Earth Science/Climate</b>	<b>Unit Summary:</b> This unit investigates the properties of climate and the implication of those properties to the creation of habitats for living organisms. In this unit, the students will focus on the difference between weather and climate. Students will investigate the globe and the factors that determine climate. Students will investigate microclimates created by mountains, bodies of water, and cities to develop an understanding of the implications of climate. Students will then compare and contrast terrestrial biomes and organisms adaptations for survival. Students will evaluate how these biomes have been affected by human impact such as habitat destruction. Students will be introduced to the concept of climate change through the topics of the carbon cycle and the greenhouse effect. Again students will be asked to evaluate the effect on human impact on natural systems.
<b>Grade Level(s):</b> <b>9-12</b>	
<b>Essential Question(s):</b>  <b>1. What is the major difference between weather and climate?</b> <b>2. What properties determine an area's climate?</b> <b>3. What is the relationship between climate and biodiversity of an area?</b> <b>4. How can climate be disrupted by human activities?</b>	<b>Enduring Understanding(s):</b> Students will be able to: <ul style="list-style-type: none"> <li>● understand the differences between climate and weather</li> <li>● Understand Earth's weather and climate systems are the result of complex interactions between the land, oceans, ice, and atmosphere.</li> <li>● Identify human activities, such as burning fossil fuels, also affect the global climate.</li> <li>● Understand that Earth is unique because it provides us with raw materials needed to sustain life.</li> <li>● Create a poster of different types of weather: tornadoes, hurricanes, etc...</li> <li>● Identify that sunlight, temperature and precipitation determine the climate.</li> <li>● Understand how animals and plants depend on the environment to meet basic needs. Explain how these relationships contribute to the stability of the ecosystem.</li> <li>● Explain and create the many cycles of Earth (water cycle).</li> </ul>

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<p><b><u>Learning Target</u></b></p> <ol style="list-style-type: none"> <li>1. Create a posters that compare and contrast weather and climate</li> <li>2. Identify the important characteristics of climate including temperature and precipitations.</li> <li>3. Explain how latitude and other factors affect the climate of an area.</li> <li>4. Explain how bodies of water and land formations can affect the climate of an area.</li> <li>5. Describe the rain shadow effect and its effect on ecosystems.</li> <li>6. Describe the heat island effect and investigate methods of reduction.</li> <li>7. Compare and contrast terrestrial biomes.</li> <li>8. Create a PowerPoint that describe how organisms adapt to the particular climate of a biome.</li> <li>9. Describe the impact of human activities on terrestrial biomes.</li> <li>10. Identify the major processes involved in the carbon cycle.</li> <li>11. Describe the impact of human activities on climate.</li> <li>12. Explore the possible causes of climate change and create a plan to help the environment.</li> <li>13. Evaluate the effects of climate change and methods to minimize these effects.</li> </ol> <p>DML:</p> <ol style="list-style-type: none"> <li>1. Interpret basic weather information (e.g., radar, map) to make predictions about future conditions (e.g., precipitation, temperature, wind).</li> <li>2. Use a model of Earth and the Sun to show how Earth's tilt and orbit around the Sun cause changes in seasons.</li> <li>3. Use models of food chains/webs to identify producers and consumers in aquatic and terrestrial ecosystems.</li> <li>4. Use a graphical representation to explain the dependence of an animal population on other organisms for food and their environment for shelter.</li> <li>5. Analyze data to determine the effects of a conservation strategy on the level of a natural resource.</li> </ol>	<p><b><u>NJCCCS</u></b></p> <ol style="list-style-type: none"> <li>Science: 5.4 F 1-3</li> <li>2. Science: 5.4 F 1-3</li> <li>3. Science: 5.4 F 1-3</li> <li>4. Science: 5.4 F 1-3 5.</li> <li>5. Science: 5.4 F 1-3</li> <li>6. Science: 5.4 F 1-3</li> <li>7. Science: 5.3 C 1-2, E-</li> <li>8. Science: 5.3 C 2, 5.4 E 3, 5.4 G 3-7</li> <li>9. Science: 5.3 C 2, 5.4</li> <li>10. Science: 5.3 C 2, 5</li> <li>11. Science: 5.3 C 2, 5.4 E 3, 5.4 G 3-7 .4 E 2-3, 5.4 G 5-7</li> <li>12. Science: 5.4 G 1-7</li> <li>13. Science: 5.4 G 1-7</li> </ol> <p>DML:</p> <ol style="list-style-type: none"> <li>1. EE.MS-ESS2-6</li> <li>2. EE.HS-ESS1-4</li> <li>3. EE.MS-LS2-2</li> <li>4. EE.HS-LS2-2</li> <li>5.EE.HS-ESS3-3</li> </ol>
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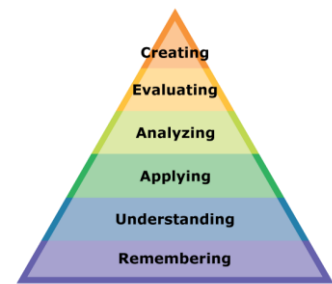
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## PART I: UNIT RATIONALE

### WHY ARE STUDENTS LEARNING THIS CONTENT AND THESE SKILLS?

<b>Course/Unit Title: Earth Science/ Energy</b>	<b>Unit Summary:</b> This unit will explore the energy resources available for human usage and the pros and cons of using each of these resources. There are three categories of energy resources, non-renewable, renewable and inexhaustible. The unit will begin with a discussion about non-renewable energy resources, fossil fuels and nuclear power, and their pros and cons. The unit will then shift focus to renewable and inexhaustible energy resources. Renewable energy resources are also referred to as biomass. Inexhaustible energy resources include wind power, hydropower, geothermal energy and solar energy. The pros and cons of using each of these resources will be explored. Students will be responsible for creating a project that educates people about one of these energy resources.
<b>Grade Level(s):</b> 9-12	
<b>Essential Question(s):</b> -What is energy? How is energy from the sun transferred and transformed? What ways can humans create energy that is useful to the environment? What types of energy are destroying the Earth?	<b>Enduring Understanding(s):</b> Students will be able to: <ul style="list-style-type: none"> <li>• most of the energy we use today comes from the sun and is converted into different forms</li> <li>• Understand how fossil fuels came to be and what we use them for.</li> <li>• Nuclear power is relatively cheap alternative to fossil fuels but has many dangerous consequences.</li> <li>• Solar power, wind power, geothermal energy, and hydroelectric power are all inexhaustible energy resources that do not contribute to air or water pollution.</li> </ul>

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### DESCRIBE THE LEARNING TARGETS.

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**\*\*\*NOTE: Students who are enrolled in this course are students with significant cognitive disabilities, and are assessed and taught based on what they are capable of doing. Each student holds an IEP and is provided a tailored path to learn new academic skills. Therefore, not ALL students will be able to achieve or learn each target stated below. There is a balance between challenging the student and attainability. As a result, all students will be assessed and placed into the appropriate learning target below and progress accordingly.**

<u>Learning Target</u>	NJCCCS or CCS
1. Identify the 5 types of energy 2. State the law of conservation of energy 3. Describe how energy from the sun is converted into each of the different forms of energy 4. Identify examples of nonrenewable energy resources and create a poster for one. 5. Describe the advantages and disadvantages of using fossil fuels 6. Explain the advantages and disadvantages of using nuclear energy	<b>1. Science:</b> 5.1 A 1-3, 5.1 D 1-2, 5.4 E 1 <b>2. Science:</b> 5.4 E 1 <b>3. Science:</b> 5.4 E 1 <b>4. Science:</b> 5.4 G 5-7 <b>5. Science:</b> 5.3 C2, 5.4 E 3, 5.4 G 3-7 <b>6. Science:</b> 5.2 D 4, 5.3



<p>7. Compare and contrast inexhaustible and renewable energy resources</p> <p>8. Describe the advantages and disadvantages of using biomass as an energy resource</p> <p>9. Describe the advantages of using solar energy, wind energy, geothermal energy, and hydropower</p> <p>10. Explain why inexhaustible and renewable resources are used less than nonrenewable resources</p> <p>11. Use Powerpoint to create a presentation that educates the public about alternatives to fossil fuels.</p> <p>12. Create a poster that compare and contrast the affect of using of fossil fuels and alternative energy resources on the carbon cycle and global climate.</p>	<p><b>7. Science:</b> 5.4 G 3-7</p> <p><b>8. Science:</b> 5.3 C 2, 5.4 E 3, 5.4 G 3-7</p> <p><b>9. Science:</b> 5.3 C 2, 5.4 E 3, 5.4 G 3-7</p> <p><b>10. Science:</b> 5.3 C 2, 5.4 E 2-3, 5.4 G 5-7</p> <p><b>11. Science:</b> 5.3 C 2, 5.4 E 3, 5.4 G 3-7</p> <p><b>12. Science:</b> 5.4 G 1-7</p>
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**Inter-Disciplinary Connections:**

Encompasses public speaking, technology, consumer, family and life skills, active listening, listening comprehension, interpersonal communication, and real-world problem solving

**Students will engage with the following text:**

\*Not a text based program: We use **Attainment Company Inc.** products, **James Stanfield Company Inc.** products and other **supplementary materials** based on the student’s needs.

**Students will write:**

**Informal:**

- short answer response
- open-ended response
- daily warm ups
- summaries
- reflections

**PART III: TRANSFER OF KNOWLEDGE AND SKILLS**

**DESCRIBE THE LEARNING EXPERIENCE.**

**How will students uncover content and build skills.**

**Students will uncover and build skills through various classroom activities.**

- **Real-life application**
- **Use of technology (iPad, laptops and SMART Board)**
- **Step-by-step dramatizations (Videos)**

- Role-playing activities
- Live action reality stories (Videos)
- Demonstrate knowledge through classroom games
- Brainstorming
- Problem solving activities

Other learning experiences could include

- Alternate lesson openers
- Warm-ups
- Think/pair/share activities
- Small group discussion
- Whole class discussion
- Critical thinking activities
- Independent journal writing
- Independent practice
- Differentiated instruction

**\*\*\* This course is specifically for a small number of students within the Black Horse Pike Regional School District. The course of study is developed to meet the individual education plans (IEPs) of students and is adaptable to each student's needs. The curriculum focuses on the Core Curriculum Content Standards for Students with Severe Disabilities coupled with a strong emphasis on the life skills component. This course is taken in a unique educational setting based on the "learn by doing" theory; therefore most experiences are hands on. The goal of the course is to:**

- Help students become self-sufficient and independent members of society.
- Improve students' academic skills to enable them to live independently.
- To specifically meet the educational needs of students as written in their IEPs.
- To provide opportunities to learn and practice daily living skills.

**\* THIS IS NOT A COLLEGE AND CAREER READINESS COURSE. It is a course to prepare students for career opportunities after high school and foster independence.**

## PART IV: EVIDENCE OF LEARNING

IDENTIFY THE METHODS BY WHICH STUDENTS WILL DEMONSTRATE THEIR UNDERSTANDING OF CONTENT AND THEIR ABILITY TO APPLY SKILLS.  
IDENTIFY BLOOM'S LEVELS.



### Formative Assessments:

The effectiveness of the instructional program will be based on teacher observations, students doing quality of work together, questioning strategies, self and peer assessment, student record-keeping, quizzes, warm-ups, class discussion, summary/reaction/journal writing, individual conferences, exit tickets and performance tasks.

### Accommodations/Modifications:

- Use multimedia equipment (iPads, laptops, etc...) to lessen reliance on text.
- Incorporate experiential and community based activities related to lesson theme.
- Include "hands on" activities (games, projects) within lectures/activities.
- Emphasize sensory experiences reflecting student's learning style: auditory, multisensory, visual, physical movement/kinesthetic.
- Use graphic organizers.
- Complete assignments through oral reports, tapes, projects or other means to lessen amount of writing.
- Extend time limits for tests and assignments.
- Guided questions provided before, during and/or after video presentations to ensure the comprehension of the main ideas.
- Provide written rubric for all projects and review accordingly
- Provide samples of projects/presentations for students to use as a reference.
- Read test items that do not assess reading skills to students.
- Use models, manipulatives and other concrete materials to demonstrate concepts and solve problems.
- Have student repeat or rephrase assignments.
- Check for understanding frequently.
- Provide multiple practice sessions to reinforce a new skill/concept.
- Break problems into smaller pieces.
- Provide guided notes/handouts.
- Review needed skills prior to lesson.

### Summative Assessments:

"Hands-on" tests and written tests

### **Accommodations/Modifications:**

- Use Pass/Fail Option.
- Provide checklists for solving problems.
- Provide teacher/student review before assignments
- Oral assessment (if needed)
- Provide sentence starters (if needed)
- Read test items that do not assess reading skills to students.
- Extend time limits.
- Break problems and test sections into smaller pieces

### **Performance Assessments:**

Projects, presentations and display of student work

### **Accommodations/Modifications:**

- Complete assignments through oral reports, tapes, projects or other means to lessen amount of writing.
- Allow students extra time to complete projects.
- Provide students with an example of project for reference.
- Make a clear rubric for students to understand exactly what is expected.