3rd Grade Gifted Curriculum

Course Description: Description - Times New Roman 12 Font

Scope and Sequence:

<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Unit</th>
<th>Instructional Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>30 Sessions</td>
<td>Problem Solving</td>
<td>Topic 1: Problem Solving</td>
</tr>
<tr>
<td>30 Sessions</td>
<td>Creative Thinking</td>
<td>Topic 1: Creative Thinking</td>
</tr>
<tr>
<td>30 Sessions</td>
<td>Affective/Research</td>
<td>Topic 1: Affective/Research</td>
</tr>
</tbody>
</table>
Subject: Gifted
Grade: 3rd
Name of Unit: Problem Solving
Length of Unit: 30 Sessions concurrently with the other 3rd grade gifted units
Overview of Unit: Students will learn, practice, and apply a variety of strategies for solving difficult math and logic problems. Students will extract relevant information, model their thinking, and explain their reasoning to peers, as well as teacher, for the strategy they select and the solution to which they arrive.

Priority Standards for unit:
- CCSS.MP1 Make sense of problems and persevere in solving them.
- CCSS.MP4 Model with mathematics.
- CCSS.MP6 Attend to precision.

Supporting Standards for unit:
- CCSS.MP5 Use appropriate tools strategically.
- NGSS.SEP.5 Using Mathematics and Computational Thinking
<table>
<thead>
<tr>
<th>Unwrapped Concepts (Students need to know)</th>
<th>Unwrapped Skills (Students need to be able to do)</th>
<th>Bloom’s Taxonomy Levels</th>
<th>Webb's DOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>sense of problems and persevere in solving them</td>
<td>Make</td>
<td>Create</td>
<td>2, 3</td>
</tr>
<tr>
<td>with mathematics</td>
<td>Model</td>
<td>Apply</td>
<td>1, 2</td>
</tr>
<tr>
<td>to precision</td>
<td>Attend</td>
<td>Apply</td>
<td>2</td>
</tr>
</tbody>
</table>
Essential Questions:
1. Why are systematic approaches important in solving problems?
2. How do I model my thinking and discoveries in a way that is helpful to others?
3. How do I think about and use data to support my thinking in meaningful ways?

Enduring Understanding/Big Ideas:
1. Using a systematic approach gives me consistent tools with which to solve problems.
   These tools can be used in a variety of domains and in the real world to solve problems.
2. I can demonstrate my thinking in multiple ways to meet the needs of diverse audiences.
3. I can find and analyze data in order to support my thinking.

Unit Vocabulary:

<table>
<thead>
<tr>
<th>Academic Cross-Curricular Words</th>
<th>Content/Domain Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Flexibility</td>
<td>● Computation</td>
</tr>
<tr>
<td>● Fluency</td>
<td>● Diagram</td>
</tr>
<tr>
<td>● GRIT (Growth, Resilience, Initiative, And Tenacity)</td>
<td>● Logic</td>
</tr>
<tr>
<td>● Mindset</td>
<td>● Pattern</td>
</tr>
<tr>
<td>● Precision</td>
<td>● Table</td>
</tr>
<tr>
<td>● Strategy</td>
<td></td>
</tr>
</tbody>
</table>

Resources for Vocabulary Development:
- **Primary Resource for Unit:** The Problem Solver, Grade 4  Second Edition-- Teacher Resource Book with Practice Problems from CD
- Creative Publications: Judy Goodnow and Shirley Hoogeboom
- [https://docs.google.com/a/parkhill.k12.mo.us/presentation/d/1zT2D82GgDe4Je5GX7rquo5nqo1XgLbOgTBg5DrbsPe4Q/edit?usp=sharing](https://docs.google.com/a/parkhill.k12.mo.us/presentation/d/1zT2D82GgDe4Je5GX7rquo5nqo1XgLbOgTBg5DrbsPe4Q/edit?usp=sharing)
- Curricular Resources
- Teacher Discussion
- Technology Resources
- Math Dictionary for Kids
Engaging Experience 1
Title: Make an Organized List
Suggested Length of Time: 1 Session
Standards Addressed:

Priority:
- CCSS.MP1 Make sense of problems and persevere in solving them.
- CCSS.MP4 Model with mathematics.
- CCSS.MP6 Attend to precision.

Supporting:
- CCSS.MP5 Use appropriate tools strategically.
- NGSS.SEP.5 Using Mathematics and Computational Thinking

Detailed Description/Instructions: The teacher will review strategy using The Problem Solver Grade 4 and Noetic Math Challenge as a resource for students. Students will practice strategy using student workbook and online problems in Noetic Math Challenge. An extension to this may be seeing complex problems in the real world with many possible solutions. Students will be able to identify important information and organize that information in a way that allows them to solve problems efficiently-- even in the presence of superfluous amounts of information.

Bloom’s Levels: Apply, Analyze, Evaluate, Create
Webb’s DOK: 2, 3
Rubric: To be created

Engaging Experience 2
Title: Use or Make a Picture or Diagram
Suggested Length of Time: 1 Session
Standards Addressed

Priority:
- CCSS.MP1 Make sense of problems and persevere in solving them.
- CCSS.MP4 Model with mathematics.
- CCSS.MP6 Attend to precision.

Supporting:
- CCSS.MP5 Use appropriate tools strategically.
- NGSS.SEP.5 Using Mathematics and Computational Thinking

Detailed Description/Instructions: The teacher will introduce strategy using The Problem Solver, Grade 4 and Noetic Math Challenge as a resource for students. Students will practice strategies using student workbook and online Noetic Problems.

Bloom’s Levels: Apply, Analyze, Evaluate, Create
Webb’s DOK: 2, 3
Rubric: To be created

Engaging Experience 3
Title: Look for a Pattern
Suggested Length of Time: 1 Session
Standards Addressed

Priority:
● CCSS.MP1 Make sense of problems and persevere in solving them.
● CCSS.MP4 Model with mathematics.
● CCSS.MP6 Attend to precision.

Supporting:
● CCSS.MP5 Use appropriate tools strategically.
● NGSS.SEP.5 Using Mathematics and Computational Thinking

Detailed Description/Instructions: The teacher will introduce strategy using The Problem Solver, Grade 4 and Noetic Challenge as a resource for students. Students will practice strategies using student workbook and Noetic online challenge problems.

Bloom’s Levels: Apply, Analyze, Evaluate, Create
Webb’s DOK: 2, 3
Rubric: To be created

Engaging Experience 4
Title: Make it Simpler
Suggested Length of Time: 1 Session

Standards Addressed

Priority:
● CCSS.MP1 Make sense of problems and persevere in solving them.
● CCSS.MP4 Model with mathematics.
● CCSS.MP6 Attend to precision.

Supporting:
○ CCSS.MP5 Use appropriate tools strategically.
○ NGSS.SEP.5 Using Mathematics and Computational Thinking

Detailed Description/Instructions: The teacher will introduce strategy using The Problem Solver, Grade 4 and Noetic Online Challenge as a resource for students. Students will practice strategies using student workbook and online Noetic challenge problems.

Bloom’s Levels: Apply, Analyze, Evaluate, Create
Webb’s DOK: 2, 3
Rubric: To be created

Engaging Experience 5
Title: Guess and Check
Suggested Length of Time: 1 Session

Standards Addressed

Priority:
● CCSS.MP1 Make sense of problems and persevere in solving them.
● CCSS.MP4 Model with mathematics.
● CCSS.MP6 Attend to precision.

Supporting:
● CCSS.MP5 Use appropriate tools strategically.
● NGSS.SEP.5 Using Mathematics and Computational Thinking

Detailed Description/Instructions: Teacher will introduce strategy using The Problem Solver, Grade 4 and online Noetic Math Challenge as a resource for students. Students will practice strategies using student workbook and online Noetic Math Challenge.

Bloom’s Levels: Apply, Analyze, Evaluate, Create
Webb’s DOK: 2, 3; Rubric: To be created
Engaging Experience 6
Title: Practice of novel problems
Suggested Length of Time: 24 Sessions
Standards Addressed

Priority:
- CCSS.MP1 Make sense of problems and persevere in solving them.
- CCSS.MP4 Model with mathematics.
- CCSS.MP6 Attend to precision.

Supporting:
- CCSS.MP5 Use appropriate tools strategically.
- NGSS.SEP.5 Using Mathematics and Computational Thinking

Detailed Description/Instructions: Students work on challenging mathematical thinking problems that require the use of problem solving strategies, these problems provide challenge and strengthens creative problem solving, and logical reasoning skills, Students also develop metacognitive skills as they identify their own thinking and strategies for solving specific problems.
- further develops gifted students' intellect in math
- helps students excel in national math competitions
- Detailed step-by-step instructions and solutions are provided for all assignments.

Bloom’s Levels: Apply, Analyze, Evaluate, Create
Webb’s DOK: 2, 3
Rubric: To be created
Engaging Scenario:

Students will participate in the Noetic Math contest twice each year (November and April). Students will evaluate their results, reflect on their learning and understanding of using creative thinking in math by using fluency and flexibility to find alternate ways to solve a problem. Students will set goals and evaluate changes needed to show improvement.

Rubric for Engaging Scenario: To be created
|  | Make an Organized List | The teacher will review strategy using The Problem Solver Grade 4 and Noetic Math Challenge as a resource for students. Students will practice strategy using student workbook and online problems in Noetic Math Challenge. An extension to this may be seeing complex problems in the real world with many possible solutions. Students will be able to identify important information and organize that information in a way that allows them to solve problems efficiently— even in the presence of superfluous amounts of information. | 1 Session |
|---|---|
| 1 | Use or Make a Picture or Diagram | The teacher will introduce strategy using The Problem Solver, Grade 4 and Noetic Math Challenge as a resource for students. Students will practice strategies using student workbook and online Noetic Problems. | 1 Session |
| 1 | Look for a Pattern | The teacher will introduce strategy using The Problem Solver, Grade 4 and Noetic Challenge as a resource for students. Students will practice strategies using student workbook and Noetic online challenge problems. | 1 Session |
| 1 | Make it Simpler | The teacher will introduce strategy using The Problem Solver, Grade 4 and Noetic Online Challenge as a resource for students. Students will practice strategies using student workbook and online Noetic challenge problems. | 1 Session |
| 1 | Guess and Check | Teacher will introduce strategy using The Problem Solver, Grade 4 and online Noetic Math Challenge as a resource for students. Students will practice strategies using student workbook and online Noetic Math Challenge. | 1 Session |
| 1 | Practice of novel problems | Students work on challenging mathematical thinking problems that require the use of problem solving strategies, these problems provide challenge and strengthens creative problem solving, and logical reasoning skills, Students also develop metacognitive skills as they identify their | 24 Sessions |
| own thinking and strategies for solving specific problems.  
| further develops gifted students' intellect in math  
| helps students excel in national math competitions.  
| Detailed step-by-step instructions and solutions are provided for all assignments. |
Creative Thinking

Subject: Gifted
Grade: 3
Name of Unit: Creative Thinking
Length of Unit: 30 Sessions, these concurrently with the other 3rd Grade Gifted Units
Overview of Unit: Students will develop metacognition of thinking skills that allow them to think through and solve complex problems.
Priority Standards for unit:
- CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  - Identify and define authentic problems and significant questions for investigation.
  - Plan and manage activities to develop a solution or complete a project.
  - Collect and analyze data to identify solutions and/or make informed decisions.
  - Use multiple processes and diverse perspectives to explore alternative solutions.
Supporting Standards for unit:
- N/A
<table>
<thead>
<tr>
<th>Unwrapped Concepts (Students need to know)</th>
<th>Unwrapped Skills (Students need to be able to do)</th>
<th>Bloom’s Taxonomy Levels</th>
<th>Webb's DOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and how specific word choices shape meaning or tone</td>
<td>Interpret, Analyze</td>
<td>Analyze</td>
<td>3</td>
</tr>
<tr>
<td>information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience</td>
<td>Present</td>
<td>Evaluate</td>
<td>3</td>
</tr>
<tr>
<td>authentic problems and significant questions for investigation</td>
<td>Identify, Define</td>
<td>Analyze</td>
<td>3</td>
</tr>
<tr>
<td>and activities to a solution or complete a project</td>
<td>Plan, Manage, Develop</td>
<td>Analyze, Evaluate, Create</td>
<td>2,3</td>
</tr>
<tr>
<td>and data to identify solutions and/or make informed decisions</td>
<td>Collect, Analyze</td>
<td>Understand, Analyze</td>
<td>1,2</td>
</tr>
<tr>
<td>multiple processes and diverse perspectives to explore alternative solutions</td>
<td>Use</td>
<td>Apply</td>
<td>2</td>
</tr>
</tbody>
</table>
**Essential Questions:**
1. How do I change existing ideas to develop new and innovative ideas?
2. How do I identify particular types of thinking which are appropriate for particular situations?
3. How do I identify and develop my own creative voice?

**Enduring Understanding/Big Ideas:**
1. I can use the SCAMPER method to adapt ideas.
2. I can identify and use multiple types of thinking skills. I can blend thinking skills to solve problems.
3. I can learn creative practices to express my creative self.

**Unit Vocabulary:**

<table>
<thead>
<tr>
<th>Academic Cross-Curricular Words</th>
<th>Content/Domain Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Convergent Thinking: Deductive, Analytical</td>
<td>● Add</td>
</tr>
<tr>
<td>● Creativity</td>
<td>● Combine</td>
</tr>
<tr>
<td>● Divergent Thinking: Inventive</td>
<td>● Eliminate</td>
</tr>
<tr>
<td>● Elaboration</td>
<td>● Magnify/Minify</td>
</tr>
<tr>
<td>● Evaluative Thinking</td>
<td>● Put to other Uses</td>
</tr>
<tr>
<td>● Flexibility</td>
<td>● Reverse/Rearrange</td>
</tr>
<tr>
<td>● Fluency</td>
<td>● Rube Goldberg</td>
</tr>
<tr>
<td>● Originality</td>
<td>● S.C.A.M.P.E.R.</td>
</tr>
<tr>
<td>● Visual Thinking</td>
<td>● Substitute</td>
</tr>
</tbody>
</table>

**Resources for Vocabulary Development:**
- PETS Curricular Resources: 3rd Grade Edition
- Creative Problem Solving
- Squiggle Resources
Creative Thinking

Engaging Experience 1
Title: Convergent Thinking (Deductive and Analytical)
Suggested Length of Time: 5 Sessions
Standards Addressed

Priority:
- CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  - Identify and define authentic problems and significant questions for investigation.
  - Plan and manage activities to develop a solution or complete a project.
  - Collect and analyze data to identify solutions and/or make informed decisions.
  - Use multiple processes and diverse perspectives to explore alternative solutions.

Supporting:
- N/A

Detailed Description/Instructions: Students are presented with the concepts of convergent thinking. Deductive logic is combined with analytical thinking strategies as students organize and reflect on a combination of clues to determine the right answers to a variety of puzzles. Students review matrix logic puzzles and learn to construct their own. Students will discuss the characteristics that make a good logic puzzle and attempt to solve each other's puzzles.

Bloom’s Levels: Analysis, Evaluate, Create
Webb’s DOK: 2, 3
Rubric: To be created

Engaging Experience 2
Title: Divergent Thinking
Suggested Length of Time: Approximately 5 Sessions
Standards Addressed

Priority:
- CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
• Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  ○ Identify and define authentic problems and significant questions for investigation.
  ○ Plan and manage activities to develop a solution or complete a project.

Supporting:
• N/A

Detailed Description/Instructions: Students will learn the rules for brainstorming as well as the divergent thinking concepts of fluency, flexibility, originality, and elaboration using abstract visual objects and the backwards inventing process.

Bloom’s Levels: Create
Webb’s DOK: 3
Rubric: To be created

Engaging Experience 3
Title: Visual Thinking
Suggested Length of Time: Approximately 5 Sessions
Standards Addressed
Priority:
• Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  ○ Identify and define authentic problems and significant questions for investigation.
  ○ Plan and manage activities to develop a solution or complete a project.
  ○ Collect and analyze data to identify solutions and/or make informed decisions.
  ○ Use multiple processes and diverse perspectives to explore alternative solutions.

Supporting:
• N/A

Detailed Description/Instructions: After completing the section in PETS covering Visual Thinking, students will use their right brain hemispheres to analyze shapes in unusual detail, manipulate shapes mentally and recognize patterns (working with pentominoes and completing the 4 Color Topological Maps (page 125-168 in Blue P.E.T.S. book).

Bloom’s Levels: Create
Webb’s DOK: 3
Rubric: To be created

Engaging Experience 4
Title: Evaluative Thinking
Suggested Length of Time: Approximately 5 Sessions
Standards Addressed
Priority:
● CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

● CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

● Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  ○ Identify and define authentic problems and significant questions for investigation.
  ○ Plan and manage activities to develop a solution or complete a project.
  ○ Collect and analyze data to identify solutions and/or make informed decisions.
  ○ Use multiple processes and diverse perspectives to explore alternative solutions.

Supporting:
● N/A

Detailed Description/Instructions: After completing the section in PETS covering Evaluative Thinking, students will use evaluative thinking to determine the best possible solution based on factual criteria (pages 172-208 in Blue PETS book). Students have an opportunity to use evaluative thinking to assess their own ability levels in convergent, divergent, visual, and evaluative thinking.

Bloom’s Levels: Evaluate, Create
Webb’s DOK: 3
Rubric: My Unique Thinking Profile (page 208 in Blue PETS book)
Engaging Scenario

**Engaging Scenario:**

Students will create a Rube Goldberg mechanism or contraption to accomplish a simple task.

**Rubric for Engaging Scenario:** To be created
## Summary of Engaging Learning Experiences for Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Engaging Experience Title</th>
<th>Description</th>
<th>Suggested Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Convergent Thinking</td>
<td>Students are presented with the concepts of convergent thinking. Deductive logic is combined with analytical thinking strategies as students organize and reflect on a combination of clues to determine the right answers to a variety of puzzles. Students review matrix logic puzzles and learn to construct their own. Students will discuss the characteristics that make a good logic puzzle and attempt to solve each other's puzzles.</td>
<td>5 Sessions</td>
</tr>
<tr>
<td>1</td>
<td>Divergent Thinking</td>
<td>Students will learn the rules for brainstorming as well as the divergent thinking concepts of fluency, flexibility, originality, and elaboration using abstract visual objects and the backwards inventing process.</td>
<td>5 Sessions</td>
</tr>
<tr>
<td>1</td>
<td>Visual Thinking</td>
<td>After completing the section in PETS covering Visual Thinking, students will use their right brain hemispheres to analyze shapes in unusual detail, manipulate shapes mentally and recognize patterns (working with pentominoes and completing the 4 Color Topological Maps (page 125-168 in Blue P.E.T.S. book).</td>
<td>5 Sessions</td>
</tr>
<tr>
<td>1</td>
<td>Evaluative Thinking</td>
<td>After completing the section in PETS covering Evaluative Thinking, students will use evaluative thinking to determine the best possible solution based on factual criteria. (pages 172-208 in Blue PETS book) Students have an opportunity to use evaluative thinking to assess their own ability levels in convergent, divergent, visual, and evaluative thinking.</td>
<td>5 Sessions</td>
</tr>
</tbody>
</table>
Affective /Research

Subject: Gifted
Grade: 3
Name of Unit: Affective
Length of Unit: 30 Sessions

Overview of Unit: Students engineer a tower and are introduced to the Engineering Design Process as a Problem Solving tool. Students will also use the Big6 Model to explore the idea that they as engineers can design and improve technology through researching a topic of their choice related to earthquakes, earthquake recovery, designing earthquake resistant buildings, etc.

Priority Standards for unit:
- 1.7. Cognitive and Affective Growth. Students with gifts and talents recognize their preferred approaches to learning and expand their repertoire.
- 4.2. Social Competence. Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.
- CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- CCSS.ELA.CCRA.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  - Identify and define authentic problems and significant questions for investigation.
  - Plan and manage activities to develop a solution or complete a project.
  - Collect and analyze data to identify solutions and/or make informed decisions.
  - Use multiple processes and diverse perspectives to explore alternative solutions.

Supporting Standards for unit:
- N/A
<table>
<thead>
<tr>
<th>Unwrapped Concepts (Students need to know)</th>
<th>Unwrapped Skills (Students need to be able to do)</th>
<th>Bloom's Taxonomy Levels</th>
<th>Webb's DOK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students with gifts and talents</td>
<td>Recognize, Expand</td>
<td>Evaluate</td>
<td>3, 4</td>
</tr>
<tr>
<td>their preferred approaches to learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and their repertoire.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students with gifts and talents</td>
<td>Develop</td>
<td>Apply</td>
<td>2</td>
</tr>
<tr>
<td>social competence manifested</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in positive peer relationships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and social interactions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>words and phrases as they are used</td>
<td>Interpret, Analyze</td>
<td>Analyze</td>
<td>3</td>
</tr>
<tr>
<td>in a text, including determining</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>technical, connotative, and figurative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>meanings, and how specific word</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>choices shape meaning or tone</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>information, findings, and supporting</td>
<td>Present</td>
<td>Evaluate</td>
<td>3</td>
</tr>
<tr>
<td>evidence such that listeners can follow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>the line of reasoning and the</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>organization, development, and style</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are appropriate to task, purpose, and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>audience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students with gifts and talents</td>
<td>Recognize, Expand</td>
<td>Evaluate</td>
<td>3, 4</td>
</tr>
<tr>
<td>their preferred approaches to learning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and their repertoire.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students with gifts and talents</td>
<td>Develop</td>
<td>Apply</td>
<td>2</td>
</tr>
<tr>
<td>social competence manifested</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in positive peer relationships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and social interactions.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and authentic problems and significant</td>
<td>Identify, Define</td>
<td>Analyze</td>
<td>3</td>
</tr>
<tr>
<td>questions for investigation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and activities to develop a</td>
<td>Plan, Manage,</td>
<td>Analyze, Evaluate,</td>
<td>2, 3</td>
</tr>
<tr>
<td>solution or complete a project</td>
<td></td>
<td>Create</td>
<td></td>
</tr>
<tr>
<td>and data to identify solutions and/or</td>
<td>Collect, Analyze</td>
<td>Understand, Analyze</td>
<td>1, 2</td>
</tr>
<tr>
<td>make informed decisions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>multiple processes and diverse</td>
<td>Use</td>
<td>Apply</td>
<td>2</td>
</tr>
<tr>
<td>perspectives to explore alternative</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>solutions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Essential Questions:
1. Who am I as a gifted learner and how does that impact my interactions with others?
2. How do my observations of my environment affect my thinking and behavior?
3. How do I recognize and respect the differences of others?
4. How do I monitor my mindset?
5. How do I implement change to become the best version of me?
6. How do I develop questions to focus my research?
7. How can I identify, collect, and use reliable resources for research?
8. How do I learn to recognize biases?
9. How do I communicate what I have learned in meaningful and compelling ways?
10. Why is attention to detail important in reading texts?
11. Why is it important to recognize relationships between collected ideas and data?

Enduring Understanding/Big Ideas:
1. I can identify my strengths and talents and use them to enhance my interactions with others and can acknowledge when I need to alter my approach.
2. I can adapt my thinking and behavior to the needs of the environment.
3. I can acknowledge when others are different, and respect their perspective, feelings, and opinions.
4. I reflect on my thinking.
5. I adjust my course if needed.
6. I can determine the difference between surface and deep thinking questions that allow me to focus my research and go deeper into my thinking.
7. I can use a variety of primary and secondary research resources to support my thinking and answer my research questions.
8. I can think about the perspectives and motivations of others and the purpose of their communication to determine how these messages might be biased.
9. I can think about my audience, and select appropriate methods to convey information in a relevant and new way.
10. If I am not careful in reading, I may miss important details needed to solve problems or understand texts.
11. Making connections between ideas is an important aspect of drawing conclusions and making inferences.
**Unit Vocabulary:**

<table>
<thead>
<tr>
<th>Academic Cross-Curricular Words</th>
<th>Content/Domain Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Bias</td>
<td>● Big6 Approach</td>
</tr>
<tr>
<td>● Citations</td>
<td>● Primary Resource</td>
</tr>
<tr>
<td>● Extract</td>
<td>● Secondary Resource</td>
</tr>
<tr>
<td>● Perspective</td>
<td></td>
</tr>
<tr>
<td>● Relevant</td>
<td></td>
</tr>
<tr>
<td>● Reliable</td>
<td></td>
</tr>
<tr>
<td>● Research</td>
<td></td>
</tr>
<tr>
<td>● Rigor</td>
<td></td>
</tr>
<tr>
<td>● STEM</td>
<td></td>
</tr>
</tbody>
</table>

**Resources for Vocabulary Development:**

- Teaching Information and Technology Skills: The Big6
- Scientific Method/Engineering Design Process
Engaging Experience 1
Title: Who am I as a Gifted Learner?
Suggested Length of Time: 2 Sessions
Standards Addressed

Priority:
- 1.7. Cognitive and Affective Growth. Students with gifts and talents recognize their preferred approaches to learning and expand their repertoire.
- 4.2. Social Competence. Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.

Supporting:
- N/A

Detailed Description/Instructions: The teacher will read Beautiful Oops by Barney Saltzberg and The Dot by Peter H Reynolds about improving one’s own coping strategies. Students will create a masterpiece from a mistake. Many gifted students wrestle with perfectionism-- which can become an impediment to their continued learning and academic risk-taking. We teach students to see “mistakes” as opportunities to shift and change their thinking rather than failure.

Bloom’s Levels: Create, Understand, Recognize
Webb’s DOK: 3
Rubric: To be created

Engaging Experience 2
Title: The Best Version of Me: A Precious Gift
Suggested Length of Time: 2 Sessions (ongoing affective/emotional intelligence conversations)
Standards Addressed

Priority:
- 1.7. Cognitive and Affective Growth. Students with gifts and talents recognize their preferred approaches to learning and expand their repertoire.
- 4.2. Social Competence. Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.

Supporting:
- N/A

Detailed Description/Instructions: In the first part of this activity and discussion, we will make a “people paper chain” and label each “person” on the list with of the following five items:
  - I have a precious gift.
  - Everyone is special in some way.
  - Nobody is perfect.
  - I can use my talents to achieve great things.
  - I can use my talents to help others.

Using an 11 x 18 sheet of white construction paper, our chains make four “people.” This gives us eight people to write messages on. We will write the five points above on the people which make up the chain--leaving three extra for more personal items. Students will decorate the front person to look like themselves.

Cite: Portable Gifted and Talented, Copyright 2013 by Mark Steven Hess.
Bloom’s Levels: 1, 2, 3
Webb’s DOK: 2  
Rubric: Completed People Paper Chain  
**Engaging Experience 3**  
Title: Perfect Square  
**Suggested Length of Time:** 1 Session  
**Standards Addressed**  
*Priority:*  
- 1.7. Cognitive and Affective Growth. Students with gifts and talents recognize their preferred approaches to learning and expand their repertoire.  
- 4.2. Social Competence. Students with gifts and talents develop social competence manifested in positive peer relationships and social interactions.  
*Supporting:*  
- N/A  
**Detailed Description/Instructions:** Book by Michael Hall, *Perfect Square*  
- Before reading the book, allow each child to choose one paper square; you want the children to choose their squares before hearing the book so they are not influenced by the ideas in the book.  
- Read the book and emphasize some of the descriptive words that the author uses (i.e. *crinkle, babble*).  
- Brainstorm with the group what could be created from a square.  
- Children return to their areas and crinkle, punch, tear, or cut their squares to make creations. Then each child mounts his or her creation onto a background sheet.  
- Finally, each child writes how he or she has changed the square and what it has become. Encourage descriptive language. (Example: “It was a perfect square and then I crinkled it, ripped it, and hole-punched it. Now it is a roaring lion.”)  

*Bloom’s Levels:* Application, Analysis, Create  
*Webb’s DOK:* 2  
*Rubric:* To be created

**Engaging Experience 4**  
**Title:** Big6  
**Suggested Length of Time:** 6 Sessions  
**Standards Addressed**  
*Priority:*  
- CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.  
- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.  
- CCSS.ELA.CCRA.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.  
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
○ Identify and define authentic problems and significant questions for investigation.
○ Plan and manage activities to develop a solution or complete a project.
○ Collect and analyze data to identify solutions and/or make informed decisions.
○ Use multiple processes and diverse perspectives to explore alternative solutions.

Supporting:
- N/A

Detailed Description/Instructions: Using the resource Informational and Technology Skills: The Big6 by Michael Eisenberg, the students will learn the steps in the Big6 approach to research-- they begin by defining specific tasks, develop strategies for gathering information, locate and access new information, use the information to write, synthesize and present their thinking, and finally evaluate what they have learned.

Bloom’s Levels: Understand, Apply, Synthesis, Evaluate
Webb’s DOK: 2, 3
Rubric: To be created

Engaging Experience 5
Title: Engineering Design Process
Suggested Length of Time: 3 Sessions
Standards Addressed

Priority:
- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- CCSS.ELA.CCRA.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  ○ Identify and define authentic problems and significant questions for investigation.
  ○ Plan and manage activities to develop a solution or complete a project.
  ○ Collect and analyze data to identify solutions and/or make informed decisions.
  ○ Use multiple processes and diverse perspectives to explore alternative solutions.

Supporting:
- N/A

Detailed Description/Instructions: Students will learn and use the Engineering Design process to design novel approaches to solving difficult problems. Students begin by defining the problem, then they generate solutions, evaluate possible solutions, test solutions, and evaluate the effectiveness of their solutions, and present your solutions. The teacher and students will collaborate, using “A House of Toothpicks” to identify and use the engineering design process.
“A House of Toothpicks” is aligns with the 3 Little Pigs books-- students must design a house of toothpicks that will save the little pigs from the wolf.

**Bloom’s Levels:** Apply, Analyze, Synthesize, Evaluate

**Webb’s DOK:** 1, 2, 3

**Rubric:** To be created

---

**Engaging Experience 6**

**Title:** Shake Things Up: Engineering Earthquake-Resistant Buildings

**Suggested Length of Time:** 10+ Sessions

**Standards Addressed**

*Priority:*

- CCSS.ELA.CCRA.SL.4 Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.
- CCSS.ELA.CCRA.W.8 Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
- Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources (ISTE 4 - Critical Thinking, Problem Solving, and Decision Making).
  - Identify and define authentic problems and significant questions for investigation.
  - Plan and manage activities to develop a solution or complete a project.
  - Collect and analyze data to identify solutions and/or make informed decisions.
  - Use multiple processes and diverse perspectives to explore alternative solutions.

*Supporting:*

- N/A

**Detailed Description/Instructions:** As students work through Engineering Design Challenges, they will have the opportunity to build problem solving, teamwork, communication, and creative thinking skills through their use of the EDP-- define the problem, generate solutions, evaluate solutions, test a solution, and present the solution. Students should be able to independently demonstrate their use of the design process.

**Bloom’s Levels:** Analyze, communicate, create, evaluate

**Webb’s DOK:** 2, 3

**Rubric:** To be created

---

**Engaging Experience 7**

**Title:** Words and More

**Suggested Length of Time:** 10 Sessions

**Standards Addressed**

*Priority:*

- CCSS.ELA.CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

*Supporting:*
N/A

**Detailed Description/Instructions:** Students prioritize and learn vocabulary and relationships between words through the WordMasters Analogies Challenge. Students (with the help of the teacher) identify important and challenging 3rd grade vocabulary to learn. To push students’ understandings of word concepts, students are challenged to use these vocabulary words in analogies— or relationships with other words or concepts.

**Bloom’s Levels:** understand, apply, analyze

**Webb’s DOK:** 2, 3; **Rubric:** To be created
Engaging Scenario

**Engaging Scenario** Students will create an inquirer’s portfolio-- each student will college evidence from their inquiries through research and design challenges to demonstrate their learning and experience with difficult inquiry tasks.

**Rubric for Engaging Scenario:** To be created
## Summary of Engaging Learning Experiences for Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Engaging Experience Title</th>
<th>Description</th>
<th>Suggested Length of Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Who am I as a Gifted Learner?</strong></td>
<td>The teacher will read <em>Beautiful Oops</em> by Barney Saltzberg and <em>The Dot</em> by Peter H Reynolds about improving one’s own coping strategies. Students will create a masterpiece from a mistake. Many gifted students wrestle with perfectionism— which can become an impediment to their continued learning and academic risk-taking. We teach students to see “mistakes” as opportunities to shift and change their thinking rather than failure.</td>
<td>2 Sessions</td>
</tr>
</tbody>
</table>
| 1     | **The Best Version of Me/A Precious Gift** | In the first part of this activity and discussion, we will make a “people paper chain” and label each “person” on the list with the following five items:  
- I have a precious gift.  
- Everyone is special in some way.  
- Nobody is perfect.  
- I can use my talents to achieve great things.  
- I can use my talents to help others.  
Using an 11 x 18 sheet of white construction paper, our chains make four “people.” This gives us eight people to write messages on. We will write the five points above on the people which make up the chain—leaving three extra for more personal items. Students will decorate the front person to look like themselves.  
*Cite: Portable Gifted and Talented, Copyright 2013 by Mark Steven Hess.* | 2 sessions |
| 1     | **Perfect Square** | Book by Michael Hall, *Perfect Square*  
- Before reading the book, allow each child to choose one paper square; you want the children to choose their squares before hearing the book so they are not influenced by the ideas in the book.  
- Read the book and emphasize some of the descriptive words that the author uses (i.e. *crinkle, babble*). | 1 session |
- Brainstorm with the group what could be created from a square.
- Children return to their areas and crinkle, punch, tear, or cut their squares to make creations. Then each child mounts his or her creation onto a background sheet.
- Finally, each child writes how he or she has changed the square and what it has become. Encourage descriptive language. (Example: “It was a perfect square and then I crinkled it, ripped it, and hole-punched it. Now it is a roaring lion.”)

<table>
<thead>
<tr>
<th>1</th>
<th>Big6</th>
<th>Using the resource <em>Informational and Technology Skills: The Big6</em> by Michael Eisenberg, the students will learn the steps in the Big6 approach to research--they begin by defining specific tasks, develop strategies for gathering information, locate and access new information, use the information to write, synthesize and present their thinking, and finally evaluate what they have learned.</th>
<th>6 sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Engineering Design Process</td>
<td>Students will learn and use the Engineering Design process to design novel approaches to solving difficult problems. Students begin by defining the problem, then they generate solutions, evaluate possible solutions, test solutions, and evaluate the effectiveness of their solutions, and present your solutions. The teacher and students will collaborate, using “A House of Toothpicks” to identify and use the engineering design process. “A House of Toothpicks” is aligns with the 3 Little Pigs books--students must design a house of toothpicks that will save the little pigs from the wolf.</td>
<td>3 sessions</td>
</tr>
<tr>
<td>1</td>
<td>Shake Things Up: Engineering Earthquake-Resistant Buildings</td>
<td>As students work through Engineering Design Challenges, they will have the opportunity to build problem solving, teamwork, communication, and creative thinking skills through their use of the EDP--define the problem, generate solutions, evaluate solutions, test a solution, and present the solution. Students should be able to independently demonstrate their use of the design process.</td>
<td>10 + sessions</td>
</tr>
<tr>
<td>1</td>
<td>Words and More</td>
<td>Students prioritize and learn vocabulary and relationships between words through the</td>
<td>10 sessions</td>
</tr>
<tr>
<td>WordMasters Analogies Challenge, Students (with the help of the teacher) identify important and challenging 3rd grade vocabulary to learn. To push students’ understandings of word concepts, students are challenged to use these vocabulary words in analogies-- or relationships with other words or concepts.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Unit of Study Terminology

**Appendices:** All Appendices and supporting material can be found in this course’s shell course in the District’s Learning Management System.

**Assessment Leveling Guide:** A tool to use when writing assessments in order to maintain the appropriate level of rigor that matches the standard.

**Big Ideas/Enduring Understandings:** Foundational understandings teachers want students to be able to discover and state in their own words by the end of the unit of study. These are answers to the essential questions.

**Engaging Experience:** Each topic is broken into a list of engaging experiences for students. These experiences are aligned to priority and supporting standards, thus stating what students should be able to do. An example of an engaging experience is provided in the description, but a teacher has the autonomy to substitute one of their own that aligns to the level of rigor stated in the standards.

**Engaging Scenario:** This is a culminating activity in which students are given a role, situation, challenge, audience, and a product or performance is specified. Each unit contains an example of an engaging scenario, but a teacher has the ability to substitute with the same intent in mind.

**Essential Questions:** Engaging, open-ended questions that teachers can use to engage students in the learning.

**Priority Standards:** What every student should know and be able to do. These were chosen because of their necessity for success in the next course, the state assessment, and life.

**Supporting Standards:** Additional standards that support the learning within the unit.

**Topic:** These are the main teaching points for the unit. Units can have anywhere from one topic to many, depending on the depth of the unit.

**Unit of Study:** Series of learning experiences/related assessments based on designated priority standards and related supporting standards.

**Unit Vocabulary:** Words students will encounter within the unit that are essential to understanding. Academic Cross-Curricular words (also called Tier 2 words) are those that can be found in multiple content areas, not just this one. Content/Domain Specific vocabulary words are those found specifically within the content.

**Symbols:**

- This symbol depicts an experience that can be used to assess a student’s 21st Century Skills using the rubric provided by the district.

- This symbol depicts an experience that integrates professional skills, the development of professional communication, and/or the use of professional mentorships in authentic classroom learning activities.