

Mendham Township Schools  
Adopted 2014

<b>Quest Grade 1      Primary Education Thinking Skills (P.E.T.S.)</b>	
<b>Stage 1-Desired Results</b>	
<b>Goals</b> <ul style="list-style-type: none"> <li>• Introduce problem-solving strategies and activities that are challenging and differentiated for every learner</li> <li>• Engage learners in high order thinking processes, including; brainstorming, critical analysis, and evaluative decision-making activities</li> </ul>	
<b>Understandings</b> <ul style="list-style-type: none"> <li>• Problems can be solved in a variety of ways.</li> <li>• Working with others can provide more ideas than when working alone.</li> <li>• Everyone has unique strengths.</li> </ul>	<b>Essential Questions</b> <ul style="list-style-type: none"> <li>• How do we solve a problem?</li> <li>• What strategies can we use to solve a problem?</li> <li>• How can working together help solve problems?</li> <li>• Is there more than one way to solve a problem?</li> </ul>
<b>Knowledge</b> Students will know... <ul style="list-style-type: none"> <li>• How to use the problem solving strategies of each thinker (listed above)</li> <li>• Creative brainstorming</li> <li>• Critical analysis</li> <li>• Evaluative decision-making</li> </ul>	<b>Skills</b> Students will be able to ... <ul style="list-style-type: none"> <li>• Use clues to find one and only one right answer</li> <li>• Brainstorm to find many answers</li> <li>• Examine smaller parts of a whole</li> <li>• Use imagination to weave wonderful stories</li> <li>• Look for one solution that works</li> </ul>
<b>CCCS:</b>  9.1.A, 9.1.B, 9.1.C 5.1.A, 5.1.B, 5.1.C, 5.1.D	
<b>Stage 2-Assessment Evidence</b>	
<b>Performance Tasks:</b> <ul style="list-style-type: none"> <li>• Group problem solving</li> <li>• Critical thinking tasks</li> <li>• Creative solutions activities</li> </ul>	<b>Other Evidence:</b> <ul style="list-style-type: none"> <li>• Written and verbal solutions to problems</li> <li>• Teacher observation</li> </ul>

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**Stage 3- Learning Plan**

**Learning Activities**

**Units of Study-**

- Dudley the Detective (Convergent/Deductive Thinking)
- Isabel the Inventor (Divergent/Inventive Thinking)
- Sybil the Scientist- (Convergent/Analytical Thinking)
- Max the Magician- (Visual/Spatial Perception)
- Jordan the Judge- (Evaluative Thinking)

**Resources:**

- Primary Education Thinking Skills (P.E.T.S.)

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Quest Grade 2      Primary Education Thinking Skills (P.E.T.S.)	
<b>Stage 1-Desired Results</b>	
<b>Goals:</b> <ul style="list-style-type: none"> <li>• Continue to explore lessons that develop critical thinking skills</li> <li>• Utilize higher-level problem-solving strategies</li> </ul>	
<b>Understandings</b> <ul style="list-style-type: none"> <li>• Problems can be solved in a variety of ways.</li> <li>• Working with others can provide more ideas than when working alone.</li> <li>• Everyone has unique strengths.</li> </ul>	<b>Essential Questions</b> <ul style="list-style-type: none"> <li>• How do we solve a problem?</li> <li>• How can working together help solve problems?</li> <li>• What strategies can be used to solve puzzles?</li> </ul>
<b>Knowledge</b> Students will know... <ul style="list-style-type: none"> <li>• How to use the problem solving strategies of each thinker</li> <li>• Creative brainstorming</li> <li>• Critical analysis</li> <li>• Evaluative decision-making</li> <li>• Observing</li> <li>• Logical thinking</li> <li>• Problem-Solving</li> <li>• Collecting and Interpreting Data</li> <li>• Sorting and Classifying</li> <li>• Articulating Patterns</li> <li>• Collecting and Interpreting Data</li> </ul>	<b>Skills</b> Students will be able to solve... <ul style="list-style-type: none"> <li>• Logic elimination puzzles</li> <li>• Visual synthesis creations</li> <li>• Scamperations</li> <li>• Tangrams</li> <li>• Problem-solving matrices</li> </ul>
<b>CCCS:</b>  9.1.A, 9.1.B, 9.1.C 5.1.A, 5.1.B, 5.1.C, 5.1.D	
<b>Stage 2-Assessment Evidence</b>	
<b>Performance Tasks:</b> <ul style="list-style-type: none"> <li>• Group problem solving</li> <li>• Critical thinking tasks</li> <li>• Creative solutions activities</li> </ul>	<b>Other Evidence:</b> <ul style="list-style-type: none"> <li>• Written and verbal solutions to problems</li> <li>• Teacher observation</li> </ul>

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**Stage 3- Learning Plan**

**Learning Activities**

**Units of Study-**

- Dudley the Detective (Convergent/Deductive Thinking)
- Isabel the Inventor (Divergent/Inventive Thinking)
- Sybil the Scientist- (Convergent/Analytical Thinking)
- Max the Magician- (Visual/Spatial Perception)
- Jordan the Judge- (Evaluative Thinking)
- Frog Math: Predict, Ponder, Play

**Resources:**

- Primary Education Thinking Skills (P.E.T.S.)
- Frog Math: Predict, Ponder, Play (Lawrence Hall of Science)

Quest Grade 4  
No Bones About It: Biomedical Engineering

**Stage 1-Desired Results**

**Goals**

Students design a knee brace for the model injured knee that helps to restore its normal range of motion.

**Understandings**

- The students will understand that one aspect of biomedical engineering is designing and researching new and better prostheses (replacement body parts). Biomedical engineers are continually improving the strength, durability, longevity and lifelikeness so amputees can lead full lives.

**Knowledge**

Students will know...

- That creating a prosthetic knee brace will take several materials
- How to demonstrate the prosthesis' strength while weighing out the pros and cons
- The characteristics and the materials that biomedical engineers consider when they design artificial limbs.

**Essential Questions**

- What is prosthesis?
- Who might need prosthesis?
- What are some important features required for a good knee brace?
- How do you find the differences of arch height in people's feet?
- What are the range of motion for healthy knees and the range of motion of a model injured knee?

**Skills**

Students will be able to ...

- Investigate biomedical engineering and the technology of prosthetics.
- Describe the engineering design considerations that go into developing quality prostheses.
- List characteristics and features that are important for a prosthetic knee brace.
- Analyze a prototype knee and make suggestions for design improvement.

**NCCCS:**

- 9.4.A.1
- 9.4.A.2
- 9.4.A.3
- 9.4.A.4
- 9.4.A.5
- K.4.9.1.4.A
- K.4.9.1.4.B
- K.4.9.1.4.C
- K.4.9.1.4.D
- K.4.9.1.4.E
- K.4.9.1.4.F

LA.4.CCSS.ELA-Literacy.CCRA.W.10 LA.4.CCSS.ELA-Literacy.CCRA.SL1-

\*Science standards to be added

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**Stage 2-Assessment Evidence**

**Performance Tasks:**

- *Specific tasks to be determined*

**Other Evidence:**

- Student kept records
- Teacher observation
- Tables, graphs, charts
- Dialogue
- Student journals
- Written report

**Stage 3- Learning Plan**

**Learning Activities:**

- *Specific activities to be determined by the teacher/students.*

**Resources:**

- Different measurement tools
- Journals
- Reports
- Engineering Adventures: Museum of Science
- Engineering is Elementary Teacher's Guide

Quest Grade 4  
Stage 1-Desired Results

Product Packaging

**Goals**

- Test different brands of the same product (student choice) to find out which one is better when being compared.

**Understandings**

- The students will use this information to find out which product is the best value for the consumer's dollar.

**Essential Questions**

- How many brands of your product will you be testing?
- What instruments or tools will you be using to test the effectiveness of the product.
- How will you decide which product is better than the other one.

**Knowledge**

Students will know...

- Awareness of testing products with different brand names.
- Measurements of effectiveness
- How to display data in different forms
- The importance of a consumers dollar

**Skills**

Students will be able to ...

- Select and use the appropriate tools to measure the effectiveness of specific products.
- Record their results
- Analyze results
- Create a report and chart/table to explain results
- Share results

**CCCS:**

- 9.4.A.1
- 9.4.A.2
- 9.4.A.3
- 9.4.A.4
- 9.4.A.5
- K.4.9.1.4.A
- K.4.9.1.4.B
- K.4.9.1.4.C
- K.4.9.1.4.D
- K.4.9.1.4.E
- K.4.9.1.4.F

LA.4.CCSS.ELA-Literacy.CCRA.W.10 LA.4.CCSS.ELA-Literacy.CCRA.SL1-

\*Science standards to be added

### **Stage 2-Assessment Evidence**

#### **Performance Tasks:**

- Make predictions
- Determine best method to test product effectiveness
- Conduct their experiment
- Draw conclusions based on results
- Explain and illustrate their findings

#### **Other Evidence:**

- Student kept records
- Teacher observation
- Tables, graphs, charts
- Dialogue
- Student journals
- Written report

### **Stage 3- Learning Plan**

#### **Learning Activities:**

- Predict
- Form a hypothesis
- Brainstorm and discuss ways of testing effectiveness for a product
- Conduct the tests needed to determine the effectiveness of the product
- Record and analyze the results
- Form conclusions
- Written report
- Tables and graphs using Microsoft Excel
- Share and display results

#### **Resources:**

- Different measurement tools
- Different products to test
- Computer
- Journals
- Reports
- Engineering is Elementary Teacher's Guide



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<b>Chess</b>	
<b>Quest- Grades 3 and 4</b> <b>Stage 1-Desired Results</b>	
<b>Goals</b> <ul style="list-style-type: none"> <li>Apply different strategies and tactics in order to play. <b>Chess</b> is a game played between two opponents on opposite sides of a board containing 64 squares of alternating colors. Each player has 16 pieces: 1 king, 1 queen, 2 rooks, 2 bishops, 2 knights, and 8 pawns. The <b>goal</b> of the game is to checkmate the other king.</li> </ul>	
<b>Understandings</b> <ul style="list-style-type: none"> <li>The students will understand the placement and movement of every chess piece.</li> <li>The students will understand the names of the pieces and the power/point system they have.</li> <li>The students will understand the value and strategy of thinking ahead in their games.</li> </ul>	<b>Essential Questions</b> <ul style="list-style-type: none"> <li>What will be your opening moves?</li> <li>What do you need to focus on when you are playing: are you playing on more of a defense or offense?</li> <li>How will you prepare and learn more tactics to implement into your level of play?</li> </ul>
<b>Knowledge</b> Students will know... <ul style="list-style-type: none"> <li>The rules</li> <li>How to move their pieces</li> <li>Information of famous chess masters</li> <li>The value of the pieces</li> <li>Specific strategies that have been practiced</li> </ul>	<b>Skills</b> Students will be able to ... <ul style="list-style-type: none"> <li>Develop their logical thinking</li> <li>Develop their memory</li> <li>Develop their imagination and creativity</li> <li>Improves concentration</li> <li>Inspires self-motivation</li> <li>As students count and use the ranks, files and diagonals on the chessboard, they apply numeration to identify how and how far the pieces move.</li> <li>Students use the algebraic grid of the chessboard to identify relative positions of the pieces on the quadrants of the board and apply this to the annotation, evaluation and description of best moves</li> <li>The chessboard pattern and the relationships of the pieces help students organize ideas to solve problems.</li> </ul>

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<b>CCCS:</b> 4.OA, 4.MD, 4.G 5.1.4.A.2, 5.1.4.B.1, 5.1.4.B.4, 5.1.4.C.1, 5.1.4.C.2, 5.1.4.C.3	
<b>Stage 2-Assessment Evidence</b>	
<b>Performance Tasks:</b> <ul style="list-style-type: none"><li>• Play students of similar ability</li><li>• Become familiar with specific strategies that work</li><li>• Perform certain chess tactics</li><li>• Chess Tournament- students will participate in</li></ul>	<b>Other Evidence:</b> <ul style="list-style-type: none"><li>• Teacher observation</li></ul>
<b>Stage 3- Learning Plan</b>	
<b>Learning Activities</b> <ul style="list-style-type: none"><li>• How to play the computer (Play as often as you can)</li><li>• Chess websites they can research to help</li><li>• Learning several tactics</li><li>• Replay the games of better players</li><li>• Record and review your games</li></ul>	
<b>Resources:</b> <ul style="list-style-type: none"><li>• Chess.com</li><li>• Chess-kids</li><li>• Chess books</li><li>• Teacher made chess stories</li></ul>	

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Quest Grade 4      Engineering Earthquake Resistant Buildings  
**Stage 1-Desired Results**

**Goals**

Students will be able to use the engineering design process as they create an earthquake resistant structure.

**Understandings**

- The students will use the engineering process as they create, improve, and showcase their structures.

**Essential Questions**

- How can we stop buildings from being damaged during an earthquake?
- How do earthquakes impact buildings of different heights and shapes?
- How can you engineer ways to stop your building from sliding off the shake table?
- Are there ways to develop a building from changing shape during a test on the shake table?

**Knowledge.**

Students will know...

- That earthquake engineering is the design, development, and production of earthquake resistant structures.
- Engineers often use models to test designs on a small manageable scale.
- The ground can shake in many different ways during an earthquake.

**Skills**

Students will be able to ...

- Explore how earthquakes impact buildings of different heights and shapes.
- Engineer ways to stop their buildings from sliding off the shake table
- Plan, create, and test their buildings on the shake table
- Improve their initial designs, test them, and finalize their building codes
- Present their final designs and share their knowledge of the Engineering Design Process.

**CCCS:**

- 9.4.A.1
- 9.4.A.2
- 9.4.A.3
- 9.4.A.4
- 9.4.A.5
- K.4.9.1.4.A
- K.4.9.1.4.B
- K.4.9.1.4.C
- K.4.9.1.4.D
- K.4.9.1.4.E
- K.4.9.1.4.F

LA.4.CCSS.ELA-Literacy.CCRA.W.10 LA.4.CCSS.ELA-Literacy.CCRA.SL1-

\*Science standards to be added

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**Stage 2-Assessment Evidence**

**Performance Tasks:**

- What is engineering?
- What is Technology?
- A Shaky Situation
- Building Skeletons
- Stop the Slide
- Getting the

**Other Evidence:**

- Student kept records
- Teacher observation
- Tables, graphs, charts
- Dialogue
- Student journals
- Written report
- Presentation

**Stage 3- Learning Plan**

**Learning Activities:**

- Students will construct an index card tower that will support a stuffed animal
- Students will examine some technologies and imagine ways to improve them
- Watch a video and read an article about the 2010 earthquake in Haiti
- Build a shale table that stimulates earthquakes and explores how it works
- Construct building units, then stack them up to create model buildings
- Engineer a way to prevent their buildings from shearing

**Resources:**

- Different measurement tools
- Journals
- Reports
- Engineering Adventures: Museum of Science

### Quest 3

### Roller Coasters

#### Stage 1-Desired Results

#### Goals

Students will be able build their own small-scale model roller coasters using pipe insulation and marbles.

#### Understandings

- In order to build working roller coasters, students must recognize the constraints placed on their designs and the design of real roller coasters by the fundamental laws of physics. Students learn that their ability to understand and work within these constraints is paramount to the success of their roller coasters.

#### Essential Questions

- Why it is important for engineers to understand how roller coasters work?
- In physics terms, how do your model roller coasters work?
- How do you consider friction and gravity when developing your roller coaster?
- How can you use the principle of conservation of energy to explain the design and layout of roller coasters?
- Can you determine in a roller coaster track at which a car has maximum kinetic and potential energy?

#### Knowledge Students will know...

- The top of the first hill must be the highest point on the roller coaster.
- Cars move fastest at the bottoms of hills and slowest at the tops of hills.
- Friction converts useful energy into heat and must be minimized.
- G-forces greater than 1 occur at the bottoms of hills.
- G-forces less than 1 occur at the tops of hills.
- To avoid falling, cars must have a certain velocity at the tops of loops

#### Skills

Students will be able to ...

- Draw a sketch of their roller coasters
- Experiment with Forces and Motions
- Test their knowledge
- Using the computer, design a "test" roller coaster
- Construct a roller coaster based upon the research conducted

#### CCCS:

9.4.A.1  
9.4.A.2  
9.4.A.3  
9.4.A.4  
9.4.A.5  
K.4.9.1.4.A  
K.4.9.1.4.B  
K.4.9.1.4.C  
K.4.9.1.4.D  
K.4.9.1.4.E  
K.4.9.1.4.F

LA.4.CCSS.ELA-Literacy.CCRA.W.10 LA.4.CCSS.ELA-Literacy.CCRA.SL1-

\*Science standards to be added

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**Stage 2-Assessment Evidence**

**Performance Tasks:**

- Research roller coaster history
- Record information found on chosen topic
- Explore Forces and Motion as they complete 2 different experiments
- Test their knowledge as they are allowed on 2 different websites that allows them to build their own roller coasters digitally
- Design and build roller coasters

**Other Evidence:**

- Student kept records
- Teacher observation
- Dialogue
- Student journals
- Written report
- Presentation

**Stage 3- Learning Plan**

**Learning Activities:**

- <http://www.learner.org/interactives/parkphysics/coaster.html>
- [http://www.bbc.co.uk/schools/scienceclips/ages/5\\_6/pushes\\_pulls.shtml](http://www.bbc.co.uk/schools/scienceclips/ages/5_6/pushes_pulls.shtml)
- [http://www.bbc.co.uk/schools/scienceclips/ages/6\\_7/forces\\_movement.shtml](http://www.bbc.co.uk/schools/scienceclips/ages/6_7/forces_movement.shtml)
- <http://tlc.howstuffworks.com/family/roller-coaster3.htm>
- <http://www.learner.org/interactives/parkphysics/coaster.html>
- <http://www.fossweb.com/modulesK-2/BalanceandMotion/activities/rollercoaster.html>

**Resources:**

- Journal
- Computer
- Websites

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<b>Quest Gr. 3 Investigating Artifacts</b>	
<b>Stage 1-Desired Results</b>	
<p><b>Goals</b></p> <ul style="list-style-type: none"> <li>• Apply anthropology, archaeology, and information about diverse Native American and world cultures.</li> <li>• Use this information to sort and classify material objects found on a walk, and then make masks from those materials.</li> <li>• Create stories to explain natural phenomena and learn how ancient peoples used folklore to explain and represent the natural world.</li> <li>• Make inferences drawn from varying evidence.</li> </ul>	
<p><b>Understandings</b></p> <ul style="list-style-type: none"> <li>• Students will use this opportunity to learn about broader social-science elements, focus on Native American wisdom, and connect the substantive science to real appreciation for collecting, preserving, and understanding clues to our varied past.</li> <li>• Students will apply this information to create maps, stories, and masks.</li> </ul>	<p><b>Essential Questions</b></p> <ul style="list-style-type: none"> <li>• What is the difference between anthropology and archaeology?</li> <li>• How will you use the objects found on the nature walk to make a mask?</li> <li>• What can you learn about a society from artifacts from their time period?</li> <li>• What will the topic be for your folklore?</li> <li>• How will you keep track of the excavating items found?</li> <li>• What will you infer about this society from the items found?</li> </ul>
<p><b>Knowledge</b> Students will know...</p> <ul style="list-style-type: none"> <li>• The difference between archaeology and anthropology</li> <li>• How to make inferences</li> <li>• How to create stories</li> <li>• How to understand and interpret a map</li> <li>• How to use artifacts to explain the past</li> </ul>	<p><b>Skills</b> Students will be able to ...</p> <ul style="list-style-type: none"> <li>• Sort and classify material objects found on a walk, then make masks from those materials</li> <li>• Create masks</li> <li>• Create a map of an excavation site</li> <li>• Write a story</li> <li>• Share inferences with peers</li> </ul>
<p><b>CCCS:</b>            9.4.A.1            9.4.A.2            9.4.A.3            9.4.A.4            9.4.A.5            6.1.4.D.13            6.1.4.D.14            6.1.4.D.15</p>	

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<b>Stage 2-Assessment Evidence</b>	
<b>Performance Tasks:</b> <ul style="list-style-type: none"><li>• Collect objects on a nature walk</li><li>• Create masks using those objects</li><li>• Sort and classify objects found in middens</li><li>• Create a map for the excavation site</li><li>• Write a folklore story</li><li>• Make inferences about people who lived in the past</li></ul>	<b>Other Evidence:</b> <ul style="list-style-type: none"><li>• Student journals</li><li>• Teacher observations</li><li>• Students' collections</li><li>• Masks</li><li>• Maps</li><li>• Stories</li><li>• Students' discussions</li></ul>
<b>Stage 3- Learning Plan</b>	
<b>Learning Activities</b> <ul style="list-style-type: none"><li>• Discuss archaeology, anthropology, and way of life of Native Americans in the past</li><li>• Discussion on how objects are used to explain life in the past</li><li>• Gather items found in nature and create masks (Native Americans)</li><li>• Identify ways to sort and classify objects</li><li>• Make a map of excavation site (midden box)</li><li>• Discuss ideas for folklore stories.</li></ul>	
<b>Resources:</b> <ul style="list-style-type: none"><li>• Lawrence Hall of Science (Investigating Artifacts)</li><li>• Computer</li><li>• Maps</li></ul>	



**Quest 3**  
**Stage 1-Desired Results**

**Medieval Times**

**Goals**

Students will be able to research life during the medieval times and recreate components prevalent to that time period.

**Understandings**

- The students will understand what life was like during the medieval times.

**Knowledge**

Students will know...

- About the various components of life during the Medieval Times, such as castles, monks, foods, knights, clothing, games, churches, weapons, etc.

**Essential Questions**

- When were the Medieval Times?
- What was life like during that time period?
- How is your life the same as/different from life then?

**Skills**

Students will be able to ...

- Research and record information about the components of life during the Medieval Times
- Determine which parts of this time period they would like to further study
- Create replicas of their chosen topic
- Share with the other students
- Compare and contrast life then to life now

**CCCS:**

9.4.A.1

9.4.A.2

9.4.A.3

9.4.A.4

9.4.A.5

K.4.9.1.4.A

K.4.9.1.4.B

K.4.9.1.4.C

K.4.9.1.4.D

K.4.9.1.4.E

K.4.9.1.4.F

LA.4.CCSS.ELA-Literacy.CCRA.W.10 LA.4.CCSS.ELA-Literacy.CCRA.SL1-

\*Science standards to be added

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**Stage 2-Assessment Evidence**

**Performance Tasks:**

- Research the times of the Medieval Time Period
- Record information found on chosen topic
- Create projects specific to topic
- Share with students and parents when it is completed

**Other Evidence:**

- Student kept records
- Teacher observation
- Dialogue
- Student journals
- Written report
- Presentation

**Stage 3- Learning Plan**

**Learning Activities:**

- Conduct web quest "Life in the Middle Ages"
- Record information from research
- Write a report from notes taken
- Create project (examples: design and build your own shield, model of a castle, design a dress that a queen would wear, create a skit that would represent the knighting ceremony, etc)

**Resources:**

- Journals
- Reports
- Computer
- Several art materials needed to build replicas

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<p><b>Quest- Grades 3 and 4</b></p> <p><b>Stage 1-Desired Results</b></p>		<p><b><u>Chess</u></b></p>
<p><b>Goals</b></p> <ul style="list-style-type: none"> <li>Apply different strategies and tactics in order to play. <b>Chess</b> is a game played between two opponents on opposite sides of a board containing 64 squares of alternating colors. Each player has 16 pieces: 1 king, 1 queen, 2 rooks, 2 bishops, 2 knights, and 8 pawns. The <b>goal</b> of the game is to checkmate the other king.</li> </ul>		
<p><b>Understandings</b></p> <ul style="list-style-type: none"> <li>The students will understand the placement and movement of every chess piece.</li> <li>The students will understand the names of the pieces and the power/point system they have.</li> <li>The students will understand the value and strategy of thinking ahead in their games.</li> </ul>	<p><b>Essential Questions</b></p> <ul style="list-style-type: none"> <li>What will be your opening moves?</li> <li>What do you need to focus on when you are playing: are you playing on more of a defense or offense?</li> <li>How will you prepare and learn more tactics to implement into your level of play?</li> </ul>	
<p><b>Knowledge</b></p> <p>Students will know...</p> <ul style="list-style-type: none"> <li>The rules</li> <li>How to move their pieces</li> <li>Information of famous chess masters</li> <li>The value of the pieces</li> <li>Specific strategies that have been practiced</li> </ul>	<p><b>Skills</b></p> <p>Students will be able to ...</p> <ul style="list-style-type: none"> <li>Develop their logical thinking</li> <li>Develop their memory</li> <li>Develop their imagination and creativity</li> <li>Improves concentration</li> <li>Inspires self-motivation</li> <li>As students count and use the ranks, files and diagonals on the chessboard, they apply numeration to identify how and how far the pieces move.</li> <li>Students use the algebraic grid of the chessboard to identify relative positions of the pieces on the quadrants of the board and apply this to the annotation, evaluation and description of best moves</li> <li>The chessboard pattern and the relationships of the pieces help students organize ideas to solve problems.</li> </ul>	

Mendham Township  
Adopted 2014

<b>CCCS:</b> 4.OA, 4.MD, 4.G 5.1.4.A.2, 5.1.4.B.1, 5.1.4.B.4, 5.1.4.C.1, 5.1.4.C.2, 5.1.4.C.3	
<b>Stage 2-Assessment Evidence</b>	
<b>Performance Tasks:</b> <ul style="list-style-type: none"><li>• Play students of similar ability</li><li>• Become familiar with specific strategies that work</li><li>• Perform certain chess tactics</li><li>• Chess Tournament- students will participate in</li></ul>	<b>Other Evidence:</b> <ul style="list-style-type: none"><li>• Teacher observation</li></ul>
<b>Stage 3- Learning Plan</b>	
<b>Learning Activities</b> <ul style="list-style-type: none"><li>• How to play the computer (Play as often as you can)</li><li>• Chess websites they can research to help</li><li>• Learning several tactics</li><li>• Replay the games of better players</li><li>• Record and review your games</li></ul>	
<b>Resources:</b> <ul style="list-style-type: none"><li>• Chess.com</li><li>• Chess-kids</li><li>• Chess books</li><li>• Teacher made chess stories</li></ul>	