

# PVTO Syllabi 2017



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*Last Updated: July 16, 2017*

## Table of Contents

Page 3	English: Level 1
Page 4	English: Level 2
Page 5	English: Level 3
Page 6	English: Level 4
Page 7	English: Level 5
Page 8	Math: Level 1
Page 9	Math: Level 2
Page 10	Math: Level 3
Page 11	Math: Level 4
Page 12	Math: Level 5
Page 13	Advanced History
Page 14	Elementary Science
Page 15	Science: Level 3
Page 16	Science: Level 4
Page 17	Science: Level 5
Page 18	SAT Preparation
<p>The majority of the courses for this program are designed to promote subject interest and aid in the understanding of basic concepts. The degree of specificity depends explicitly on the tutor's intuitions of the class' ability and their own preference.</p>	
<p>For teaching resources visit: <a href="http://pvto.weebly.com">pvto.weebly.com</a></p>	

English: Level 1	
Grades 1-2	
Concept 1	<p style="text-align: center;">Practicing Sight Words</p> <ul style="list-style-type: none"> <li>● Assist students in recognizing words appropriate for their ability and have them practice expanding their vocabulary.</li> <li>● Useful exercises include having students use new vocabulary words in writing a creative short story.</li> </ul>
Concept 2	<p style="text-align: center;">Basics in Grammar: Parts of a Sentence</p> <ul style="list-style-type: none"> <li>● Understanding what nouns, verbs, and adjectives are &amp; how proper formation of sentences.</li> </ul>
Concept 3	<p style="text-align: center;">Parts of a Story: TV Show / Reading Poetry</p> <ul style="list-style-type: none"> <li>● Using a popular TV show, have students identify the exposition, climax and resolution.</li> <li>● Use poetry packet and allow students to draw pictures to comprehend poems.</li> </ul>
Concept 4	<p style="text-align: center;">Writing Your Story</p> <ul style="list-style-type: none"> <li>● Allow students to write <i>their own</i> story about anything they choose.</li> </ul>

English: Level 2	
Grades 3-4	
Concept 1	<p style="text-align: center;">Elements of Fiction: Characters, Plot, and Setting</p> <ul style="list-style-type: none"> <li>● Explain to students the significance of characters, plot and setting. Have them write creative short stories that includes each.</li> </ul>
Concept 2	<p style="text-align: center;">Understanding Theme and Mood</p> <ul style="list-style-type: none"> <li>● Differentiate between theme and mood. Use simple definitions such as “theme: author’s message” and “mood: how author makes you feel.” Have students demonstrate their understanding either through identifying it in story or writing their own.</li> </ul>
Concept 3	<p style="text-align: center;">The Five Stages of Plot</p> <ul style="list-style-type: none"> <li>● Lesson on Exposition, Rising Action, Climax, Falling Action, and Resolution. Have student’s identify moments in their favorite movie.</li> </ul>
Concept 4	<p style="text-align: center;">Reading Poetry</p> <ul style="list-style-type: none"> <li>● Close read a popular song from movie, as a class, without telling students the poem’s source. Ex “Strangers like Me” from Tarzan</li> </ul>
Concept 5	<p style="text-align: center;">Parts of a Story: TV Show</p> <ul style="list-style-type: none"> <li>● Using a popular TV show, have students identify stages of plot.</li> </ul>
Concept 6	<p style="text-align: center;">Writing Your Story</p> <ul style="list-style-type: none"> <li>● Allow students to write <i>their own</i> story about anything they choose.</li> </ul>

English: Level 3	
Grades 5-6	
Concept 1	<b>Identifying Characters, Plot, and Setting</b> <ul style="list-style-type: none"> <li>● Explain to students the significance of characters, plot and setting. Have them write creative short stories including each.</li> </ul>
Concept 2	<b>Identifying Theme and Mood in Stories</b> <ul style="list-style-type: none"> <li>● Differentiate between theme and mood.</li> </ul>
Concept 3	<b>Identifying the Five Stages of Plot</b> <ul style="list-style-type: none"> <li>● Lesson on Exposition, Rising Action, Climax, Falling Action, and Resolution. Have student's identify moments in their favorite movie.</li> </ul>
Concept 4	<b>Reading Poetry</b> <ul style="list-style-type: none"> <li>● Close read a popular song from movie as a class, without telling students the 'poem's' source. Ex "Strangers like Me" from Tarzan</li> </ul>
Concept 5	<b>Parts of a Story: TV Show</b> <ul style="list-style-type: none"> <li>● Using a popular TV show, have students identify stages of plot.</li> </ul>
Concept 6	<b>Writing Your Story</b> <ul style="list-style-type: none"> <li>● Allow students to write <i>their own</i> story about anything they choose.</li> </ul>

English: Level 4	
Grades 7-8	
Concept 1	<p>What is a Thesis Statement?</p> <ul style="list-style-type: none"> <li>● Explain what a thesis statement, or topic sentence, is to students.</li> </ul>
Concept 2	<p>Writing an Outline</p> <ul style="list-style-type: none"> <li>● Key parts of an outline include introduction with thesis, body paragraphs with evidence, and conclusion with bigger message.</li> </ul>
Concept 3	<p>Close Reading and Literary Devices</p> <ul style="list-style-type: none"> <li>● Practice reading a short story together as a class keeping a keen eye for literary devices and the author's theme.</li> </ul>
Concept 4	<p>Parts of a Story: TV Show</p> <ul style="list-style-type: none"> <li>● Using a popular TV show, have students identify stages of plot, literary devices, and themes.</li> </ul>
Concept 5	<p>Summer Reading Discussion Group</p> <ul style="list-style-type: none"> <li>● Discuss summer reading assignment and progress.</li> </ul>
Concept 6	<p>Writing Style and MLA Format</p> <ul style="list-style-type: none"> <li>● Teach students how to write in MLA format.</li> </ul>

<p>English: Level 5</p> <p>Grades 9-12</p>	
Concept 1	<p style="text-align: center;">Thesis Statements and Formulating an Argument</p> <ul style="list-style-type: none"> <li>● Explain what a thesis statement is to students. Read examples of successful thesis statements. Emphasize the importance of an arguable thesis.</li> </ul>
Concept 2	<p style="text-align: center;">Writing an Outline</p> <ul style="list-style-type: none"> <li>● Key parts of an outline include introduction with thesis, body paragraphs with evidence, and conclusion with bigger message.</li> </ul>
Concept 3	<p style="text-align: center;">Close Reading and Literary Analysis</p> <ul style="list-style-type: none"> <li>● Practice reading a short story together as a class keeping a keen eye for literary devices and the author's theme.</li> </ul>
Concept 4	<p style="text-align: center;">Literature &amp; Human History</p> <ul style="list-style-type: none"> <li>● How literature is an inexorable actor in documenting and shaping human history.</li> </ul>
Concept 5	<p style="text-align: center;">Summer Reading/Assignment Help</p> <ul style="list-style-type: none"> <li>● Discuss summer reading assignment and progress.</li> </ul>
Concept 6	<p style="text-align: center;">Writing Style and MLA Format</p> <ul style="list-style-type: none"> <li>● Teach students how to write in MLA format.</li> </ul>

Math: Level 1 Grades 1-2	
Concept 1	<p>Addition: Single &amp; Double Digits</p> <ul style="list-style-type: none"><li>● Use counting straws.</li><li>● Practice with non-carrying problems first.</li></ul>
Concept 2	<p>Subtraction: Single &amp; Double Digits</p> <ul style="list-style-type: none"><li>● Use counting straws.</li><li>● Practice with non-carrying problems first.</li></ul>
Concept 3	<p>Triple Digit Addition and Subtraction</p> <ul style="list-style-type: none"><li>● Provide challenge problems.</li></ul>
Concept 4	<p>Brief Intro to Multiplication</p> <ul style="list-style-type: none"><li>● Only if the students are ready for that!</li></ul>



Math: Level 2	
Grades 3-4	
Concept 1	<p>Review Addition and Subtraction</p> <ul style="list-style-type: none"><li>● Practice with challenging problems to test the class' ability.</li></ul>
Concept 2	<p>Multiplying: Single and Double Digits</p> <ul style="list-style-type: none"><li>● Worksheets.</li></ul>
Concept 3	<p>Division: Single and Double Digits</p> <ul style="list-style-type: none"><li>● Worksheets.</li></ul>
Concept 4	<p>Introduction to Exponents</p> <ul style="list-style-type: none"><li>● Understanding the basics of what exponents are.</li></ul>
Concept 5	<p>Basics of Geometry</p> <ul style="list-style-type: none"><li>● Area and perimeter of basic euclidean shapes.</li></ul>

Math: Level 3	
Grades 5-6	
Concept 1	<p>Multiplication: Double and Triple Digits</p> <ul style="list-style-type: none"><li>● Practice problems.</li></ul>
Concept 2	<p>Division: Double and Triple Digits</p> <ul style="list-style-type: none"><li>● Practice problems.</li></ul>
Concept 3	<p>Working with Exponents</p> <ul style="list-style-type: none"><li>● Practice problems.</li></ul>
Concept 4	<p>What is a Variable?</p> <ul style="list-style-type: none"><li>● Explain the uses and purpose of a variable. Practice variable manipulation and “solving for <math>x</math>”</li></ul>
Concept 5	<p>Graphing and Inputs/Output Tables</p> <ul style="list-style-type: none"><li>● Teach the basic relationship between input/output tables, graphs, and linear equations.</li></ul>

Math: Level 4	
Grades 7-8	
Concept 1	<p>Order of Operations: PEMDAS</p> <ul style="list-style-type: none"> <li>● Gradually progress to more difficult problems with buried functions.</li> </ul>
Concept 2	<p>Working with Variables</p> <ul style="list-style-type: none"> <li>● Continue exercises from first lesson.</li> </ul>
Concept 3	<p>Solving and Graphing Linear Equations</p> <ul style="list-style-type: none"> <li>● Explain relationship between slope, y-intercept, and graph.</li> </ul>
Concept 4	<p>Solving and Graphing Quadratic Equations</p> <ul style="list-style-type: none"> <li>● Quadratic formula, factoring, and graphing.</li> </ul>
Concept 5	<p>Word Problems</p> <ul style="list-style-type: none"> <li>● Practice problems with quadratics and linear equations.</li> </ul>
Concept 6	<p>Introduction to Online Resources</p> <ul style="list-style-type: none"> <li>● Introduce students to Khan and Desmos.</li> </ul>

Math: Level 5	
Grades 9-12	
Concept 1	<p>Solving Linear Equations and Quadratics</p> <ul style="list-style-type: none"><li>• Graphs, quadratics, and factoring.</li></ul>
Concept 2	<p>Exponents and Logarithms</p> <ul style="list-style-type: none"><li>• Practice problems.</li></ul>
Concept 3	<p>Systems of Equations</p> <ul style="list-style-type: none"><li>• Solving.</li></ul>
Concept 4	<p>Graphing and Manipulating Parent Functions</p> <ul style="list-style-type: none"><li>• How to manipulate <math>a</math>, <math>b</math>, <math>h</math>, <math>k</math>, and etc.</li></ul>
Concept 5	<p>Introduction to Limits</p> <ul style="list-style-type: none"><li>• Demonstrate the concept.</li></ul>
Concept 6	<p>Introduction to Online Resources</p> <ul style="list-style-type: none"><li>• Introduce students to Khan and Desmos.</li></ul>

<h2>Advanced History</h2> <p>Grades 6-8, 9-12</p>	
Concept 1	<p style="text-align: center;"><b>The American Revolution: Key Events</b></p> <ul style="list-style-type: none"> <li>• The Boston Massacre, the Boston Tea Party, First Continental Congress, <u>Declaration of Independence</u>, the various battles (focus on first and last, Lexington and Concord and Yorktown ), Articles of Confederation, Treaty of Paris, and the <u>Constitution</u>.</li> </ul>
Concept 2	<p style="text-align: center;"><b>The French Revolution</b></p> <ul style="list-style-type: none"> <li>• Understanding who are represented by the Three Estates and significance of the revolt of the Third Estate. Discuss the Declaration of the Rights of Man and <i>liberte, egalite, and fraternite</i>. Key topics include Maximilien Robespierre, the Reign of Terror, and the rise of Napoleon.</li> </ul>
Concept 3	<p style="text-align: center;"><b>The American Civil War: Key Events</b></p> <ul style="list-style-type: none"> <li>• Explain the general overview of the Civil War and the issue of slavery. As a class, read Abraham Lincoln’s <u>Emancipation Proclamation</u> or <u>Gettysburg Address</u>.</li> </ul>
Concept 4	<p style="text-align: center;"><b>Understanding WW2</b></p> <ul style="list-style-type: none"> <li>• Key events of WW2, including rise of fascism and Holocaust.</li> <li>• Discuss current affairs (Neo-Nazism, Trump and the “alt-right”)</li> </ul>
Concept 5	<p style="text-align: center;"><b>Globalization and the Green Revolution</b></p> <ul style="list-style-type: none"> <li>• Pros and cons of globalization and the Green Revolution.</li> </ul>
Concept 6	<p style="text-align: center;"><b>Historicizing Yourself</b></p> <ul style="list-style-type: none"> <li>• Understanding yourself as an historical agent.</li> </ul>

Elementary Science	
Grades 1-4	
Concept 1	<p>Earth's Place in the Universe</p> <ul style="list-style-type: none"> <li>● Teach students about our solar system, galaxy, and interesting features about the planets and other cosmological events.</li> </ul>
Concept 2	<p>Our Planet</p> <ul style="list-style-type: none"> <li>● Types of natural landforms, Pangea, water cycle, food chains and webs, types of symbiosis (parasitism, commensalism, mutualism).</li> </ul>
Concept 3	<p>Our Story</p> <ul style="list-style-type: none"> <li>● How humans evolved through Darwin's theory of natural selection, our current relationship with the environment, climate change, &amp; etc.</li> </ul>
Concept 4	<p>Chemical Reactions</p> <ul style="list-style-type: none"> <li>● Basics about atoms and molecules &amp; how different chemical structures can interact with each other.</li> <li>● Celebrate knowledge with a fun experiment (volcano, rocket, etc.)</li> </ul>

<p>Science: Level 3</p> <p>Grades 5-6</p>	
Concept 1	<p>Earth in the Universe</p> <ul style="list-style-type: none"> <li>● Teach students about our solar system, galaxy, and interesting features about the planets and other cosmological events.</li> <li>● Explain the modern understanding of the universe from the Big Bang to Earth's formation. Then discuss what the inside of the Earth looks like.</li> </ul>
Concept 2	<p>Darwin's Theory of Evolution</p> <ul style="list-style-type: none"> <li>● Explain Darwin's theory of evolution. Trace one creature's lineage.</li> </ul>
Concept 3	<p>The 6th Mass Extinction: Reality of Climate Change</p> <ul style="list-style-type: none"> <li>● Explain the urgency of understanding climate change and how it works.</li> </ul>
Concept 4	<p>Chemical Reactions</p> <ul style="list-style-type: none"> <li>● Basics about atoms and molecules &amp; how different chemical structures can interact with each other.</li> <li>● Celebrate knowledge with a fun experiment (volcano, rocket, etc.)</li> </ul>

Science: Level 4	
Grades 7-8	
Concept 1	<p style="text-align: center;"><b>Properties of Matter</b></p> <ul style="list-style-type: none"> <li>• The transformations from solid, liquid, and gas.</li> </ul>
Concept 2	<p style="text-align: center;"><b>Major Natural Events</b></p> <ul style="list-style-type: none"> <li>• Explaining the causes of volcanoes, earthquakes, mountain ranges, tsunamis, tornadoes, and etc.</li> <li>• Critical for students to understand tectonic plate theory.</li> </ul>
Concept 3	<p style="text-align: center;"><b>The History of Earth: Inside and Out</b></p> <ul style="list-style-type: none"> <li>• Explain the modern understanding of the universe from the Big Bang to Earth's formation. Then discuss what the inside of the Earth looks like.</li> </ul>
Concept 4	<p style="text-align: center;"><b>Darwin's Theory of Evolution</b></p> <ul style="list-style-type: none"> <li>• Explain Darwin's theory of evolution. Trace one creature's lineage.</li> </ul>
Concept 5	<p style="text-align: center;"><b>The 6th Mass Extinction: Reality of Climate Change</b></p> <ul style="list-style-type: none"> <li>• Explain the urgency of understanding climate change and how it works.</li> </ul>
Concept 6	<p style="text-align: center;"><b>Importance of Science in 2017</b></p> <ul style="list-style-type: none"> <li>• Discuss the scientific method, how policymakers neglect the findings of modern science and its serious repercussions.</li> </ul>



Science: Level 5	
Grades 9-12	
Concept 1	Intro to Biology <ul style="list-style-type: none"> <li>• TBD by Tutor</li> </ul>
Concept 2	Intro to Chemistry <ul style="list-style-type: none"> <li>• TBD by Tutor</li> </ul>
Concept 3	Intro to Physics <ul style="list-style-type: none"> <li>• TBD by Tutor</li> </ul>
Concept 4	Intro to Psychology <ul style="list-style-type: none"> <li>• TBD by Tutor</li> </ul>
Concept 5	Topics in Environmental Science: Climate Change <ul style="list-style-type: none"> <li>• TBD by Tutor</li> </ul>
Concept 6	Topics in Environmental Science: 6th Mass Extinction <ul style="list-style-type: none"> <li>• TBD by Tutor</li> </ul>

SAT Preparation	
Grades 9-12	
Concept 1	<p>Writing Section</p> <ul style="list-style-type: none"> <li>● Practice tests from College Board and SAT practice books!</li> </ul>
Concept 2	<p>Math Unit 1</p> <ul style="list-style-type: none"> <li>● Practice tests from College Board and SAT practice books!</li> </ul>
Concept 3	<p>Math Unit 2</p> <ul style="list-style-type: none"> <li>● Practice tests from College Board and SAT practice books!</li> </ul>
Concept 4	<p>Reading Unit 1</p> <ul style="list-style-type: none"> <li>● Practice tests from College Board and SAT practice books!</li> </ul>
Concept 5	<p>Reading Unit 2</p> <ul style="list-style-type: none"> <li>● Practice tests from College Board and SAT practice books!</li> </ul>
Concept 6	<p>Review and Practice Test</p> <ul style="list-style-type: none"> <li>● Have students take practice test at home and bring to class, so the class can go through challenging problems together.</li> </ul>