# Unit 7: Post AP Exam

Content Area: **Mathematics**
Course(s): **Advanced Placement Calculus**
Time Period: **May**
Length: **3 weeks**
Status: **Published**

## Enduring Understandings:

- Apply all previously learned material
- Differential calculus is the study of instantaneous rate of change.
- Integral calculus is the study of areas under the curve.
- When to use which method we have studied for specific problems

## Essential Questions:

- Apply all previously learned material
- How are derivatives and integrals related?
- Why is it important to have a mastery of each topic we have covered?

## Lesson Titles:

- 320 AP Calculus AB problems
- Calculus Collage
- Create 50 Flash Cards for students to study next year
- Create a Board Game
- Related Rates sort and match activity
- Revolutionary Lantern Problem

## Career Readiness, Life Literacies & Key Skills

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| WRK.K-12.P.4 | Demonstrate creativity and innovation. |
| WRK.K-12.P.5 | Utilize critical thinking to make sense of problems and persevere in solving them. |
| WRK.K-12.P.8 | Use technology to enhance productivity increase collaboration and communicate effectively. |
| WRK.K-12.P.9 | Work productively in teams while using cultural/global competence. |

## Inter-Disciplinary Connections:

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| LA.RST.11-12.1 | Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions. |

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| LA.RST.11-12.2 | Determine the central ideas, themes, or conclusions of a text; summarize complex concepts, processes, or information presented in a text by paraphrasing them in simpler but still accurate terms. |
| LA.RST.11-12.3 | Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text. |
| LA.RST.11-12.4 | Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11-12 texts and topics. |
| LA.RST.11-12.5 | Analyze how the text structures information or ideas into categories or hierarchies, demonstrating understanding of the information or ideas. |
| LA.RST.11-12.6 | Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, identifying important issues that remain unresolved. |
| LA.RST.11-12.7 | Integrate and evaluate multiple sources of information presented in diverse formats and media (e.g., quantitative data, video, multimedia) in order to address a question or solve a problem. |
| LA.RST.11-12.9 | Synthesize information from a range of sources (e.g., texts, experiments, simulations) into a coherent understanding of a process, phenomenon, or concept, resolving conflicting information when possible. |
| LA.RST.11-12.10 | By the end of grade 12, read and comprehend science/technical texts in the grades 11-CCR text complexity band independently and proficiently. |

## Instructional Strategies, Learning Activities, and Levels of Blooms/DOK:

- 50 study cards
- Blooms Analysis - Break down objects or ideas into simpler parts and find evidence to support generalizations
- Blooms Application - Apply Knowledge to actual situations
- Blooms Evaluation - Make and defend judgments based on internal evidence or external criteria
- Blooms Knowledge - Remember previously learned information
- Blooms Synthesis - Compile component ideas into a new whole or propose alternative solutions
- board game
- Provide individual activity
- Provide real world examples
- Provide team work activity
- review homework
- review vocabulary that is associated with this unit
- revolutionary lantern project
- vocabulary crossword game

## Modifications

## Formative Assessment:

- AP style multiple choice
- Pair share
- Partner answer/analyze questions
- Pass out of class

## Benchmark Assessment

Skills-based assessment- math practice

## Summative Assessment:

- AP Free response Questions
- AP practice tests
- Individual Assignment
- Marking Period Assessment
- performance task
- Project
- Review game

## Resources & Materials:

- AP sample Questions
- data investigations
- Establish a set of general strategies for student independence and self-evaluation
- Evoke student participation from their seats and at the board
- Independent/Cooperative learning explorations
- Powerpoint lessons
- Smartboard Lessons