



# Mile High Academy Summer Honors Program 11th Grade

## **Overview:**

The Mile High Academy Summer Honors Program is designed to keep students' skills sharp over the summer. This will help them dive straight into fall courses and improve fall test scores, which typically suffer after the long summer break. Participation in the summer program is required for all honors students. All other students are encouraged to participate, but are not required to do so.

## **Requirements:**

Honors students are required to complete the assigned project in the core areas of math, English, science, and social studies. In addition, they must select one project from the areas of Bible, physical education, technology or foreign language. Though individual students will work at their own pace, each project should take about five hours to complete for a total of 25 academic hours over the course of the summer.

All assignments are due on the first day of the school year. Failure to turn in the assignment at that time may result in the student being asked to withdraw from the MHA honors program.

## **Contact Information:**

Should you have any questions regarding the summer honors program, please feel free to contact our registrar, Brenda Rodie ([brodie@milehighacademy.org](mailto:brodie@milehighacademy.org); 303-607-4914), or our Vice-Principal of Academics, Jenni Eno ([jeno@milehighacademy.org](mailto:jeno@milehighacademy.org); 479-595-6050). Direct specific project questions to the appropriate teacher:

- **Bible:** Leandro Bizama; [lbizama@milehighacademy.org](mailto:lbizama@milehighacademy.org)
- **English:** Jenni Eno; [jeno@milehighacademy.org](mailto:jeno@milehighacademy.org)
- **Foreign Language:** Jennifer Bizama; [jbizama@milehighacademy.org](mailto:jbizama@milehighacademy.org)
- **Math:** Brian Howard; [bhoward@milehighacademy.org](mailto:bhoward@milehighacademy.org)
- **Physical Education:** Erik Pardo; [epardo@milehighacademy.org](mailto:epardo@milehighacademy.org)
- **Science:** Lisa Venteicher; [lventeicher@milehighacademy.org](mailto:lventeicher@milehighacademy.org)
- **Social Studies:** Walter Weber; [wweber@milehighacademy.org](mailto:wweber@milehighacademy.org)
- **Technology:** Tyler Rettler; [trettler@milehighacademy.org](mailto:trettler@milehighacademy.org)

## Assignment Checklist

### Directions:

Use this checklist to ensure that you complete the project correctly.

### Projects:

#### Required Projects

- English
- Math
- Science
- Social Studies

#### Optional Projects (select one)

- Bible
- Foreign Language
- Physical Education
- Technology

### Project Steps:

- Read the project descriptions
- Determine which optional project you will complete (Bible, Foreign Language, Physical Education, or Technology)
- If you select Bible, contact Mr. Bizama for project approval
- Where options exist within a subject area, choose the project that interests you
- Thoroughly understand the directions and requirements
- Contact teachers with any questions
- Obtain the necessary materials
- Step through the project
- Double-check that you met the project requirements including formatting instructions
- Turn-in in the assignments to the department head on the first day of school

### Suggested Schedule:

- Early June- Complete Project 1
- Late June- Complete Project 2
- Early July- Complete Project 3
- Late July- Complete Project 4
- Early August- Complete Project 5

# English

## Project Overview:

Choose ONE book (that you have not previously read) to read from the list below and complete the corresponding assignment. Free digital versions of some of the books are available as they are past applicable copyright dates. The other books are available at your local library or for purchase from any major book retailer.

\*Note that all essays should be typed, double-spaced, in Times New Roman 12 pt. font.

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**Title:** *Jane Eyre*

**Author:** Charlotte Brontë

**Description:** This gothic novel centers on Jane Eyre, an orphan who endures many hardships throughout her childhood. Because of her early experiences, she craves two things: independence and love. Jane eventually gains some independence as a governess, but in a cruel twist of fate, she secretly falls in love with Rochester, her wealthy employer. Though Jane is Rochester's intellectual equal, she is very aware of her own lack of beauty, money, and social status. Can she maintain her identity, independence, and moral compass in a relationship with a powerful man like Rochester? It may not matter, for he is hiding a dark secret that threatens far more than Jane's longings.

**Assignment:** In a 3-4 page essay, address the following:

Explore the conflicting elements fire and ice within the work. With whom or what are the motifs associated? What do they represent? What message does Brontë express through them? Use a minimum of five short quotes associated with fire and five short quotes associated with ice within your essay.

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**Title:** *The Scarlet Pimpernel*

**Author:** Baroness Emmuska Orczy

**Description:** This action-packed novel is set during the French Revolution in a period known as the Reign of Terror. The protagonist, Sir Percy, lives under a carefully developed persona when in England, acting as a lethargic dimwit around his wealthy social circle. In reality, Sir Percy is the famous Scarlet Pimpernel, known for using his wit, charisma, and swordsmanship to rescue French aristocrats condemned to die by the guillotine.

**Assignment:** While the Scarlet Pimpernel is clearly the hero of this story, he poses an ethical dilemma. Historically, the French Revolutionaries sought to overthrow what was essentially a feudal system in France prior to the late 1700's. Under that system, many poor starved to death, while the aristocrats lived in opulence. Although the revolutionaries' indiscriminate murder of the aristocrats by guillotine was brutal, far more poor serfs died over the centuries serving cruel aristocratic families. This brings us to the Scarlet Pimpernel, a wealthy baron who thwarted the laws set in place by the revolutionaries in order to save the lives of the rich oppressors they sought to overthrow. In a 3-4 page essay, address the following:

Is one ever justified in breaking rules/laws? If yes, what criteria determine when such justification exists? Was the Scarlet Pimpernel justified in his behavior? Why or why not? Use concrete evidence from the text to support your answer.

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**Title:** *Pilgrim's Progress*

**Author:** John Bunyan

**Description:** Considered one of the greatest works of English literature, this allegory follows Christian on his journey out of the City of Destruction to the Celestial City. Along the way, Christian faces many obstacles such as the Valley of the Shadow of Death, the Giant Despair, and Vanity Fair. The book, an interesting read even at face value, becomes deeply thought provoking when viewed from the perspective of our own personal spiritual journeys.

**Assignment:** Write a 3-4 page essay discussing the obstacles from *Pilgrim's Progress* that you personally believe are the most difficult to overcome in your life. First, briefly describe how Christian faces the obstacles you have chosen. Then, delve into the allegorical significance of each encounter. Finally, apply the message to your own life.

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**Title:** *Wuthering Heights*

**Author:** Emily Brontë

**Description:** Set on the dark, stormy moors of northern England, this Gothic novel explores the human psyche. When Mr. Earnshaw brings home the orphaned Heathcliff, he sets into motion a story of love, heartbreak, jealousy, and revenge. Heathcliff finds his soul mate in Mr. Earnshaw's daughter, Catherine. However, Catherine must make a choice between the poor, psychologically troubled Heathcliff and his foil, the rich, kind, handsome Edgar Linton. The choice she makes has the power to destroy them all.

**Assignment:** Heathcliff and Catherine's love story is known as one of the most complex in all of literature, and yet, one could fairly make the case that they did not love each other at all. In a 3-4 page essay, address the following questions:

- What is true love?
- Based on your definition, does Heathcliff love Catherine?
- Based on your definition, does Catherine love Heathcliff?
- Are there any other characters in the novel that exhibit true love? How so?

Use concrete evidence from the text to support your responses.

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**Title:** *Oliver Twist*

**Author:** Charles Dickens

**Description:** Oliver is a charismatic orphan living in Victorian London. He manages to escape the cruel workhouse, where he was born, only to find himself an unwilling partner in a band of thieves. Oliver's adventures take him through many twists and turns, but his goodness eventually helps him beat the odds.

**Assignment:** During the Victoria era, most people believed that poverty and sin were intricately related. Essentially, the poor were bad from birth and experienced poverty as punishment for their evil nature. Wealth, on the other hand, was viewed as a sign of God's favor. In *Oliver Twist* Dickens challenges this viewpoint. In a 3-4 page essay, use evidence from the book (quotes, plot, character analysis, etc.) to present Dickens view on the root of poverty.

# Mathematics

## **Project Overview:**

Assignments are based on what mathematics class students will be entering in the school year following the summer math program. Assignment descriptions are as follows:

### Students Entering Algebra II – Problem Solving

Get your textbook ahead of time in order to complete these assignments. You may either buy it from the school office or get your own. The book is:

Larson, Ron, et al. 2012. *Holt McDougal Larson Algebra 2*. Houghton Mifflin Harcourt Publishing Company. ISBN 9780547647159.

In the “Student Resources” portion of the textbook, there is a section called “Skills Review Handbook.” There are 27 topics covered. Each topic has examples and practice problems. You must do the following five sections:

1. “Binomial Products”
2. “LCDs of Rational Expressions”
3. “Writing Algebraic Expressions”
4. “Triangle Relationships”
5. “More Problem Solving Strategies”

In addition to these five sections, you are to choose five more sections, for a total of 10 assignments. Choose sections that you know from your own mathematical experience are areas that you need to improve. Be honest with yourself. Do not just choose a section because it looks easy or you know that it will be easy for you. Instead, choose sections that will help you improve your skills.

Each assignment must have either 20 problems or all of the problems completed, whichever occurs first. For example, the section “Calculating with Percents” has 31 practice problems. Do 20 of them to complete the assignment. However, the section “Perimeter and Area” has 8 problems. Do all of them to complete the assignment.

**Calculator Use is Prohibited.** Sure, it is impossible to verify whether you use your calculator or not, but take it as a challenge!

### Students Entering PreCalculus – Problem Solving

Get your textbook ahead of time in order to complete these assignments. You may either buy it from the school office, or get your own. The book is:

Larson, Ron. 2014. *PreCalculus with Limits, 3<sup>rd</sup> Edition*. Cengage Learning. ISBN 9781133962885.

In Appendix A (p. A1) of the textbook, there are seven sections which are designed to be a review of the fundamental concepts of Algebra. You are to review each of the concepts for sections A.1-A.7. There are many examples and good explanations of all of the concepts. Once you have reviewed each of the sections, you are to complete 25 problems from the exercises section. Choose any 25 problems, but make sure that you choose at least one from each type of problem that is presented. For example, in the A.1 Exercises, there are sections labeled “Classifying Real Numbers,” “Plotting Points on the Real Number Line,” “Plotting and Ordering Real Numbers,” etc. Choose at least 1 problem from each of these sections to complete.

**Calculator Use is Prohibited.** Sure, it is impossible to verify whether you use your calculator or not, but take it as a challenge!

### Students Entering AP Calculus – Reading and Problem Solving

Get your textbook ahead of time in order to complete these assignments. You may either buy it from the school office, or get your own. The book is:

Larson, Ron and Edwards, Bruce. 2014. *Calculus of a Single Variable, 10<sup>th</sup> Edition, AP Edition*. Cengage Learning. ISBN 9781285060330.

You are first required to read about the AP Exam. On page xxi of the textbook there is a section called “Preparing for the AP Calculus Examination,” and on page xxiv there is a section called “Taking the AP Calculus AB Examination.” You are to read these sections in order to familiarize yourself with the AP Calculus AB Exam. Many of the questions that students have about the exam are addressed including: how the test is set up, how much time you will have to take it, etc.

For the second part of your assignment, you are to work through Chapter P – “Preparation for Calculus.” There are four sections. You should read the explanations and follow the examples for each section. Each section P.1 – P.4 has an exercises section. You should choose 20 exercises from sections P.1 – P.3 and 8 exercises from P.4 to complete. On p. 37 there are review exercises. You should choose 10 exercises to complete. Finally, on p. 39 there are Problem Solving Exercises. You should choose 7 exercises to complete from Problem Solving.

While choosing your problems, make sure that you choose exercises from each type of problem. For example in P.1 there are exercises on Matching, Sketching a Graph by Point Plotting, Approximating Solution Points, etc.

## Science

Conduct a fun and informative research project on any topic of your choosing in the either Anatomy & Physiology or Physics, and write a double-spaced research paper about five pages long.

You will need to find at least eight sources to develop further knowledge on the subject. Include the following in your essay:

- Science involved
- Alternative/similar research efforts
- Benefits to society
- Company development
- Popular demand
- Effects on society
- Negative impacts (if applicable)

Sources must be cited properly using APA format.

## Social Studies

Use the following book:

Cahill, Thomas. *Desire of the Everlasting Hills*. New York: Anchor Books, 1999.  
ISBN: 0385482515

Read the introduction through Chapter II (pages 3-101). Type a two-page reaction paper that focuses on the following questions:

- *Describe three events, mentioned in the book that took place in the 400 years before the arrival of Jesus. How did each one of these events form the world in which Jesus arrived?*
- *From what you have read, why is Jesus an important historical figure? (Focus on historical aspects, rather than the religious ones that we often focus on in Christianity.)*

The paper should be double-spaced and typed in Times New Roman 12 pt. font. Do not bother with an introductory paragraph or conclusion, but rather focus on answering the questions to the best of your ability. Also, take notes while you read, so that you can reference the different events. I hope you enjoy the book. It is one of the best historical books I have ever read on either the Roman world or Jesus.

## Bible

### **Project Overview:**

Choose one of the projects below. Each option requires about 100 pages of reading from an adaptation of the classic *Conflict of the Ages* series, by Ellen G. White. You can purchase them online from the Adventist Book Center website or visit the store on Downing – across from Porter Hospital – to pick up a copy from there.

## Option 1 – Suggested for the summer before either 11<sup>th</sup> or 12<sup>th</sup> grade

### Step 1:

Read *Beginning of the End*, chapters 1-4, pages 7-25; and *Love Under Fire*, Intro, pages 7-12, chapters 29-42, pages 203-273.

**Description:** This adaptation of the classic *Patriarchs and Prophets* and *The Great Controversy* gives a glimpse of the reality about the fierce struggle between good and evil.

### Step 2:

Select seven quotes from the reading that in your opinion show how fierce and difficult the struggle between good and evil has been throughout history. In concise sentences, explain why you chose each quote to represent the fierceness of the war.

### Step 3:

#### Choose one of the following:

**Written assignment:** Write a 10-paragraph essay outlining how the war between good and evil started and how it will end. Start by discussing why God allowed evil and how evil has affected human life. Share how you have experienced this same struggle in your life. Close the essay by explaining how God has overcome evil through self-sacrifice and why He has the right to bring justice to Satan and his kingdom of darkness.

**\*Small Group Study Guide:** Develop a one-hour small group study guide and use it to lead a group discussion/study in the setting of your choice. Design the study around the reading material. You can separate the discussion/study into two sessions if you want. Make sure to turn in the study guide and the recorded discussion.

**\*Sermon:** Make either an outline or a manuscript for a sermon based on one of the chapters or stories in the reading. Then, deliver the sermon in a setting of your choosing. The sermon can be anywhere from 15 minutes to 30 minutes long. Make sure to turn in your outline or manuscript and your recording of it.

\*The video recording can be saved in any format that would allow a computer to play it.

## Option 2 – Suggested for the Summer before either 11<sup>th</sup> or 12<sup>th</sup> grade

### Step 1:

Read *Beginning of the End*, chapters 1-4, pages 7-25; and *Love Under Fire*, Intro, pages 7-12, and chapters 29-42, pages 203-273.

**Description:** This adaptation of the classic *Patriarchs and Prophets* and *The Great Controversy* gives a glimpse of the reality about the fierce struggle between good and evil.

### Step 2:

#### Projects – choose one of the following:

**\*Creative media project:** Make a short mini-series with at least 3 episodes that are at least 10 minutes long in a format of your choosing. For example, you can do animation or conventional filming. The series must be a parable or allegory of the real Great Controversy. There have to be clear connections with the points in the reading. You may work with one or

two partners as long as you discuss each individual's tasks with Mr. Bizama to ensure that each person participates equally. The more people acting, editing, or writing the storyboard the longer the mini-series must be.

**\*Documentary:** Film a documentary about some aspect of the history of the Christian church through the ages that demonstrates the conflict between good and evil in our world. The documentary must be at least 20 minutes long. You may include interviews, shots of various places, graphics, etc.

**\*Creative Writing:** Write a short novel or story that is an allegory or parable to the war between good and evil. The story has to be at least 6 pages long and have clear connections to points of the reading.

\*All Option 2 projects require pre-approval from the Religion department to ensure a clear understanding of the project expectations.

## Foreign Language

Write an original poem or compose original song lyrics in a foreign language. Poems must be at least ten lines long and have at least six rhyming words. Song lyrics must have at least two verses of four lines each with a chorus, also of four lines. There must be at least six rhyming words. Both poem and song lyrics must be accompanied by illustrations, either drawings or photos.

## Physical Education

### **Project Overview:**

The Physical Education Honors Project is designed to enhance the students' knowledge of exercise and the benefits of staying active. It is important that students know and understand the advantages of consistent exercise and a healthy lifestyle.

### **Assignment:**

Students are to create a 10-15 minute video on exercises that are beneficial to the body. Areas that the video can cover may include – but are not limited to – safety, proper form, technique, healthy eating habits, etc. Be creative in your video and please make sure that the video is filmed with you as the instructor. Then, write an essay that answers the following questions:

1. Where did you get your ideas?
2. What was your favorite part of making the video?
3. Did you learn anything new that you did not know before?
4. Were any of the exercises difficult to teach?
5. What was the hardest part in making the video?

# Technology

## Step 1:

Choose one topic from the list below or submit a topic of your own before the end of the school year for approval:

- The Cloud – Pros and Cons
- Social Networking and how it has changed relationships and marketing
- Online safety (identity theft, digital footprints, etc.)
- IT Security – Research issues dealing with IT security (e.g. social engineering, the Target data theft, software vulnerabilities, the Heartbleed vulnerability, viruses and malware, etc.).
- Content filtering – Does it have a place at school or work?
- Software and/or music and movie piracy
- IT investment challenges – Some examples include trying to plan multi-year technology strategies in a quickly moving area, budget considerations and challenges, and causes and ramifications of over/under-buying.

## Step 2:

Research the topic using at least 3 sources from at least 2 of the following categories: book, research database, website/blog, magazine, video, documentary, interview, or podcast. Please list the sources you use even if they are not quoted in the paper.

## Step 3:

Write an executive summary of your findings on the topic. Then, answer the following questions in 1-3 paragraphs:

- What did you learn about your topic? Did anything surprise you?
- Do you think this topic is something relevant to students and/or the school? Why or why not?
- Do you think the issues involving your topic will get better or worse as time goes on? Why?
- How did you go about researching your topic and finding sources?

## Potential Resources:

- [www.pcmagazine.com](http://www.pcmagazine.com)
- [www.pcworld.com](http://www.pcworld.com)
- [www.us-cert.gov](http://www.us-cert.gov)
- [www.cnet.com](http://www.cnet.com)
- <http://blog.opendns.com>
- <http://www.microsoft.com/en-us/piracy>
- <http://www.smbitjournal.com>
- <http://www.bsa.org>

- *Worm: The First Digital World War* by Mark Bowden
- *Glass Houses: Privacy, Secrecy, and Cyber Insecurity in a Transparent World* by Joel Brenner
- *The Art of Intrusion* and *The Art of Deception* by Kevin Mitnick

It is suggested that you use the library for some of your research – if your local library does not have a book you need, there is a good chance they can borrow it for you from another library that does.