



Summer Work for Advanced Placement Courses - Summer 2022

<p>AP Calculus AB</p>	<p>Dear AP (AB) Calculus Student,</p> <p>I am very proud of all of you for taking on such an intimidating subject. By popular opinion, calculus gets a bad reputation for being ridiculously difficult and for good reason. You should all know that calculus is challenging and we will ALL struggle with the concepts here and there. This class will not only test your academic brain but challenge your character as well, and I think we can all attest that there is some glory to be found in any struggle.</p> <p>Summer Expectations</p> <p>You can expect to have a minimum of 30 hours of homework and reading this summer; for some of you, this will be review, but for others, it will be new material. The first thing that you will have to do is go to www.khanacademy.org/join and sign up for a khan academy account USING class code Z4K96RSR (the code for “Winchendon School AP Calculus AB”)</p> <p>After signing into the class, you should do the first two general units by July 30th (26 topics total, titled “Limits and continuity” and “Differentiation and basic derivative rules”)</p> <p>And finally, the second two general units by August 30th (16 topics total, titled, “Differentiation: composite, implicit, inverse functions” and “Contextual applications of differentiation”)</p> <p>You may need help to do this! There are video explanations for each topic and you will be able to discuss your progress with your teacher during three “check-in” times during the summer. Your teacher may be able to offer more “zoom” support as well, on those check-in dates. We will email you the check-in dates with your teacher once the course roster is finalized.</p> <p>Any student who does not complete the summer assignments may not be eligible for the AP Calculus class.</p> <p>Materials for the Course:</p> <ul style="list-style-type: none"> AP Classroom (we will provide this) Khan Academy AP Calculus course Graphing Calculator: Any one of: TI-84, TI-84 Plus, TI-84 CE, TI-84 Silver Edition Three-ring binder for this class only <p>This is a certified AP course and we will move through the course at the pace set by the recommendations of College Board.</p>
<p>AP Calculus BC</p>	<p>Dear AP (BC) Calculus Student,</p> <p>I am very proud of all of you for taking on such an intimidating subject. By popular opinion, calculus gets a bad reputation for being</p>

	<p>ridiculously difficult and for good reason. You should all know that calculus is challenging and we will ALL struggle with the concepts here and there. This class will not only test your academic brain but challenge your character as well, and I think we can all attest that there is some glory to be found in any struggle.</p> <p>Summer Expectations You can expect to have a minimum of 30 hours of homework and reading this summer; for some of you, this will be review, but for others, it will be new material. The first thing that you will have to do is go to www.khanacademy.org/join and sign up for a khan academy account USING class code C7RZX4ZE (the code for “Winchendon School AP Calculus BC”)</p> <p>After signing into the class, you should do the first three general units by July 30th (35 topics total, titled “Limits and continuity”, “Differentiation and basic derivative rules” , and “Differentiation: composite, implicit, inverse functions”) And finally, the next three general units by August 30th (32 topics total, titled, “Contextual applications of differentiation”, “Applying derivatives to analyze functions”, and “Integration and accumulation of change”)</p> <p>You may need help to do this! There are video explanations for each topic and you will be able to discuss your progress with your teacher during three “check-in” times during the summer. Your teacher may be able to offer more “zoom” support as well, on those check-in dates. We will email you the check-in dates with your teacher once the course roster is finalized.</p> <p>Any student who does not complete the summer assignments may not be eligible for the AP (BC) Calculus class.</p> <p>Materials for the Course: AP Classroom (we will provide this) Khan Academy AP Calculus course Graphing Calculator: Any one of:TI-84, TI-84 Plus, TI-84 CE, TI-84 Silver Edition Three-ring binder for this class only</p> <p>This is a certified AP course and we will move through the course at the pace set by the recommendations of College Board. If you feel that you have larger gaps than most, please let me know, and I will work with you to get you caught up.</p>
<p>AP Statistics</p>	<p>Welcome to Summer statistics work!</p> <p>Since our schedule is so condensed over the school year, we are going to utilize the summer to begin AP statistics work.</p> <p>At most, this will consist of roughly 10 hours of work. You will work from the shared folder titled AP Summer Statistics. If available to you, I suggest that you print out the material. Your entry ticket into AP statistics will be handing in all the material from your summer work.</p>

	<p>Please feel free to email me with any questions at jsampson@winchendon.org.</p> <p>Link to the shared folder</p>
<p>AP Biology</p>	<p>Welcome to AP Biology,</p> <p>I am so excited to get to know you and work with you over the upcoming year. In order to hit the ground running I would like you to complete the following: review Unit 1, and conduct an experiment.</p> <p>Review Unit 1: Please review Unit One - “ The Chemistry of Life” in the required textbook. This unit contains 3 chapters (The Study of Life, The Chemical Foundation of Life, and Biological Macromolecules), you will be tested on the topics fairly early on in the semester and a strong foundation will be required to succeed. Several Questions will be pulled from the review at the end of each chapter.</p> <p>Conduct an Experiment: The best part of Biology is that it is all all around us and there is a whole world of experiments just waiting to be conducted. Your task before the end of the summer is to design an experiment that tests a biological phenomenon. You should clearly lay out your hypothesis and use statistical analysis (Mean, Standard Deviation, and Standard Error of the Mean) to support or refute your hypothesis. Your experimental write up should be no more than a page front and back and contain the following sections (Hypothesis, Procedure, Results, and a Discussion). If you are having a tough time designing your own experiment see the guideline for some examples and ideas. You are welcome to conduct your own version of one of the example experiments but if you are passionate about a topic you should find a way to test it. Feel free to email me and I can help you brainstorm your experiments.</p> <p>Please email me with any specific questions or concerns at penglehardt@winchendon.org</p>
<p>AP Environmental Science</p>	<p>Welcome to AP Environmental Science. All expectations for summer work are outlined in this Google Doc. You will be expected to have the summer work ready to hand in for the first day of classes.</p> <p>Feel free to email me with any questions or concerns at sfriedman@winchendon.org.</p>
<p>AP Physics</p>	<p>Hello, and welcome to AP Physics. The exercises below are a review of the prerequisite math skills that you need to succeed in AP Physics 1. All expectations for summer work are outlined in this google doc entitled AP Physics 1</p>

	<p>2020-21 Summer Homework. In that document, there are instructions on what specific problems to complete on this website: Algebra Review. Please read through the summer homework document first.</p> <ul style="list-style-type: none"> • Make sure to read all directions throughout the packet. Show your work! • Final answers can be in terms of mathematical constants (π, e, i, etc.). • Your work must be legible and linear, and I must be able to follow it easily. • Mark your final answers by either circling or boxing them. • Your completed summer work is due on the first day of class. • If you have difficulty, please do not hesitate to email me at astoll@winchendon.org.
<p>AP US Government and Politics</p>	<p>Hello and welcome to AP US Government and Politics. All expectations for summer work are on my syllabus. Click here for more information. You will be expected to have the summer work ready to hand in for the first day of classes. I will schedule a couple of check-ins throughout the summer, so make sure that you are checking your email semi-regularly.</p> <p>Feel free to email me with any questions or concerns at jfriedman@winchendon.org.</p>
<p>AP Psychology</p>	<p><u>Assignments</u></p> <p>1. Fear</p> <p>Listen to the podcast https://www.npr.org/podcasts/510307/invisibilia HW: Write a one-page response. You must include one outside source to strengthen/add to your response.</p> <p>2. Thought</p> <p>Listen to the podcast: https://www.npr.org/programs/invisibilia/375927143/the-secret-history-of-thoughts HW: Write a one-page response. You must include one outside source to strengthen/add to your response.</p> <p>3. Neural Plasticity</p> <p>Watch: https://www.youtube.com/watch?v=VaDILD97CLM HW: Write a one-page response. You must include one outside source to strengthen/add to your response.</p> <p>4. Memory</p>

	<p>Listen to the podcast: https://www.wnycstudios.org/podcasts/radiolab/episodes/91569-memory-and-forgetting HW: Write a one-page response. You must include one outside source to strengthen/add to your response.</p> <p>5. Sleep:</p> <p>Listen to the podcast: https://www.wnycstudios.org/podcasts/radiolab/segments/91533-sleep-deprivation HW: Write a one-page response. You must include one outside source to strengthen/add to your response.</p> <p>Please feel free to email me with any questions at jsampson@winchendon.org.</p>
<p>AP Spanish</p>	<p>Read and annotate the book <i>Cajas de Cartón</i> by Fransisco Jiménez, and write chapter summaries. Cajas de Cartón</p> <p>Vocabulary List</p> <p>I would also recommend watching the Spanish TV series, <i>Chicas de Cable</i>.</p>
<p>AP French</p>	<p>Bonjour,</p> <p>Here are a few things that you should be focusing on for the rest of the summer in order to prepare yourself for the AP French Test in May 2021.</p> <p>Starting June 24th (10 weeks)</p> <p>1. Journal and Vocabulary (Google Doc: Journal-Max Summer 2020)</p> <p>Every week, you will write a minimum of half a page on a topic of your choice. It could be describing a special day or event you attended (or look forward to attending), an opinion on what is going on the news, or something you want to write about. The important element is to vary tenses and learn new vocabulary words or idiomatic expressions (at least five for each week). At the end of the writing, those five words should be listed and defined in French. This weekly exercise should take you 30 minutes a week.</p>

2. Listening and Reading Comprehension

Twice a week, you should select one of the following websites and spend 15 minutes to view the video and complete listening activities related to the video:

***For listening:**

<http://www.tv5.org/cms/chaine-francophone/enseigner-apprendre-francais/Premiere-classe/p-2040-Ig0-Apprendre-le-francais-en-ligne-avec-Premiere-classe.htm> (choose from the top **themes** choice list of environment, science, etc)

http://www.rfi.fr/lffr/pages/001/accueil_exercice_ecoute.asp (choose **theme** on left)

<http://www.1jour1actu.com/infos-animees/> (watch different news articles explained to kids)

***For reading:**

<http://www.parismatch.com/> (choose **theme** on top bar)

<http://www.leparisien.fr/> (choose **theme** of news on top choice bar- then click on an article topic to read the entire article)

From these **listening** and **reading** resources, write down names of the videos you view and articles you read and **5 words** in French that you learned per session. You should have a list of at least **10** words per week. Place each week's vocab on a Google doc with a heading of the title and the date completed. By the time school begins, you should have at least **10** lists of 10 vocabulary words-**100** new words!

Vary your viewing and reading to include the following themes that appear on the AP French exam:

1. Science and Technology- la science et la technologie
2. Contemporary Life- la vie contemporaine
3. Family and Community- la famille et la communauté
4. Beauty and Aesthetics- l'esthétique
5. Global Challenges- les défis mondiaux
6. Personal and Public Identities- la quête de soi

3. Persuasive Writing

Once in July (due before July 14th) and once in August (due before August 14th) - Rent a French Movie, watch it on Netflix or go on YouTube to watch a French movie. Write at least 100 words to convince me to watch it or not. Again, try to use new vocabulary. Always make a list of the new vocabulary words.

4. DUOLINGO

Join in by going to

<https://www.duolingo.com/o/tyqdtz>

Work on this and gather points! You should be able to go over 5,000 points by the end of summer!

10 weeks- 500 points per week!