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<div align="center">Technology Resources</div>

Part 1:

1. Code Academy - K.AP.A.01

     Code Academy is a free resource to learn over ten programming languages through interactive lessons. Not only do they have language courses, but they also have courses covering broader topics in computer science. They also have paid courses available that you can test out in your classroom with a free trial membership. They have many resources and documentation for many different programming languages along with course material. All in all, Code Academy is great for teaching computer science students what they need to know.

2. PhET Interactive Simulations - HS-PS2-1

     UC Boulder's PhET (Physics Education Technology) interactive simulations are invaluable in underequipped science and mathematics classrooms. PhET contains 167 different interactive simulations split between the topics of physics, chemistry, math, earth science, and biology. These simulations can act as labs in classrooms that may not have the correct equipment to perform laboratory experiments safely and accurately. Many of these simulations are also translated into several different languages, which helps ELL students. PhET also helps teachers learn how to use their tools so their students can be educated as effectively and efficiently as possible.

3. CNN 10 - KSDE HGSS 4.3

       CNN 10 is a daily 10-minute news presentation geared toward secondary students to keep them up to date with current events. CNN 10 also has a newsletter, and signing up for free gives you access to weekly news quizzes to ensure your students are paying attention to the world around them. This current knowledge will not only make them better citizens but make it so they can understand how news stories develop over time and what they learn about in history they can construct connections to in the modern day because history is doomed to repeat itself.

4. Actively Learn - KSDE HGSS 1.3

       Actively Learn is a reading resource from McGraw-Hill rife with different historical readings. They have content that is geared from 3rd to 12th grade and can also be sorted based on a student's reading level. They also have several discussion-based questions available for students that you can assign. Actively Learn also allows students to make and save notes in their readings. There is a free and paid "Prime" version that has more features. The free version still has automatic grading and allows you to embed questions into assigned readings, which is all you can ask for.

5. Membean - SL.11-12.8

       Membean is a paid vocabulary resource that works to build an active vocabulary and moves away from the weekly vocab word list model that has reigned supreme for so many years. Each student's Membean account is personal; no two students will have the same exact words. Membean ensures that advanced students are given advanced words to work on and allows them to skip words they already know (skipped words will be tested on.) They also make it so students with weaker lexicons are not given words way above their level. Membean's best feature is its

automatic differentiation. Membean gamifies learning, making vocabulary fun for students. Membean also has vocab quizzes that can be proscribed by teachers at will and test your student's knowledge for gradebook data.

6. The Juice Learning - RL.8.2

The Juice Learning is a paid reading resource that differentiates students' readings so that people can grow their comprehension skills at any level. The Juice has a wide array of topics, so students are not forced to read about uninteresting things. The Juice is great for ELL students because their articles are available in over 70 languages. Students can work toward mastery and see their progress as it grows. Infographics are often included, which help students make sense of graphics they may see outside the classroom. Vocabulary games are also available for students to make learning new words fun.

7. Desmos Graphing Calculator – 11th Grade Math A.REI.D

Desmos is a free online graphing calculator that can run on any device and has a very clean and intuitive design for students to use. It does not always make sense to expect students to purchase a $100 graphing calculator that they will only use for a year when they already most likely have a cellphone or one-to-one technology in the classroom. Desmos also has teacher and student resources available. They recently came out with a three-dimensional graphing calculator as well, and while it is still in its early stages, I like the program a lot.

8. Khan Academy – 9-10th Grade Math A.SSE.B

Khan Academy is a resource that has what feels like everything on it but is especially useful for learning mathematics. Much of the material on Khan Academy aligns with AP course objectives. As teachers, we can only explain something in so many ways, and our learners need to hear it in a way we have not presented to them yet. Sal Khan is often that extra intuitive

explanation. In addition to videos, they have short writeups and practice problems available for free to students. Students can track their course progress, earn experience points, and level up. This makes learning fun and engaging for students.

Part 2:

1. Story Bird – Elementary

Story Bird is a paid tool that empowers writing in young students. They can make anything from picture books to long-form stories. I would use this for older elementary students because they love stories, and that is an excellent way for them to practice their writing. I remember writing stories back in elementary school and using a keyboard to mash them into Microsoft Word was uninspiring, and having a tool like Story Bird would have excited a literature-averse kid like me about writing.

2. Pear Deck – Elementary

Pair Deck is a paid or free digital classroom management tool that helps teachers monitor students' emotional states and learning. I would use this with elementary school because young kids have big emotions, and having a safe and reliable way to communicate those feelings is important. There are also good time management tools built into the free version of Pear Deck, which helps your classroom stay on task and not drift.

3. IXL – Middle

IXL is an excellent way for middle school students to practice their math skills in a fun way. IXL gamifies learning and rewards students with digital treasures and certificates when they complete a task. IXL also has a litany of standards that it aligns with, so you can ensure your students learn what the state says they need to. IXL is a paid resource, but getting your

district to purchase it is worth the money because students can get the repeats they need to build math proficiency.

4. Minecraft EDU – Middle

Middle school students love video games like Minecraft; why don't we use this to our advantage in the classroom? Minecraft EDU can be used to teach almost every core subject in our middle schools. While there is a STEM focus, students can also learn about topics like history and language arts while playing their favorite game. Minecraft EDU is fantastic because it has over 600 standard-aligned lessons to teach students, and you can also develop your own lessons. Minecraft EDU is excellent because it is built upon its Bedrock engine, which can run on devices as simple as cell phones.

5. Classroom Screen – High

Classroom Screen is excellent for high school classrooms because of the greater independence high school students have. Sometimes, students need reminders of things like the task at hand or how much time they have left to complete it. Classroom Screen enables you to get student feedback from your class so you can be keyed into the efficacy of your teaching from a student's perspective. Classroom Screen also has several tools to randomize student pairing so no one can complain about groups or be left out when groups are chosen by student volition. Classroom Screen simplifies things, which is sometimes essential for the complicated mess of high school.

6. Kahoot – High

I have seldom heard students at any level complain about doing a Kahoot. Kahoot is an excellent tool for reviewing granular information about the subject material. Oftentimes, Kahoot is paired with some incentive for doing well, which is good because it rewards good students for

being good rather than punishing struggling students for struggling. Students who do not need the review can often take the time it takes to do a Kahoot for themselves at no penalty, and the students who need it are rewarded at most with a prize and at least with a refresher of important information. The only issue with Kahoot is managing inappropriate nicknames.

7. Amplify – Professional Development

Amplify offers free, any-time professional development for mathematics instructors. Amplify is associated with Desmos, and we have already discussed how great that tool is. Amplify has many courses available for which, upon completion, you are rewarded with a certificate of completion. They have four classes, but they will most likely have more available in the future. They have a podcast and many programs to enhance your teaching skills.

8. SimpleK12 PD in your PJs – Professional Development

SimpleK12 has free online synchronous workshops and training that count toward your professional development points. One great reason to choose SimpleK12 is because it is free! SimpleK12 also has paid services, but it is hard to beat free. SimpleK12 courses are taught by expert professionals who often have decades of experience in the field, so you know that you are learning from the best. They have a membership program that gives you access to a steady stream of PD content, but if there is a particular course you would like to attend, you do not need membership and can sign up for a one-time pass.