Hello science teacher friends! Welcome back to school after a great summer! Like many of you, I took some time this summer to travel, which has been something I have been looking forward to, thanks to the pandemic, for a couple of summers. My family traveled to the national parks of the Pacific Northwest, including Olympic National Park—which was incredible! It never ceases to amaze me how much my boys come away learning from just a short ranger-led tour. When they were younger, they did the junior ranger programs; as teens, they are “too old” for those, so we as a family seek out every ranger hike, stargazing experience, and animal interaction we can find. If you are lucky enough to teach within field trip distance of a national park, or even a state or local one, take your kids! My students always loved getting outside whenever I was permitted to take them off campus. I found our state botanical gardens to be an excellent place for chemistry field trips (which are so hard to find), as the volunteers there could always tie into the science I was teaching in the classroom. This experience reminded me why I greatly love teaching environmental science (including the AP version). Talk about science integration—environmental has it all: chemistry, physics, ecology, biology, animal behavior, forestry, and the application of these sciences in the real world are easy to find. This also means that if you aren’t teaching environmental science, there is a good chance that your subject overlaps in some way, so I am hoping all of you will find a way to use this month’s environmental science–related resource suggestion.

One of my all-time favorite sub plans (and no, I am not advocating for a departure from good standards-based instruction when subs are present, but I also think we are all professionals enough to appreciate the realities of high-school classrooms) was the BBC Planet Earth series. Every time Sir David Attenborough’s voice would start into the narration of the fantastic scenery, each pair of eyes, no matter how jaded, was suddenly glued to the screen. My students would take sides as seals and penguins fought, ooh and aww as baby snow leopards pranced, and marvel at the wonders of the natural world.

We would have engaging conversations about conservation, animal rights and welfare, the different approaches of nations to preservation, and realistic discussions of the very real circle of life that played out on the screen and in the lives of my students. It was, and still is, a fantastic series, and its sequels have been equally wonderful. But by 2022, Planet Earth is getting a little old; the kids know it and have probably seen it since elementary school, so what is a good science teacher to do?

Enter Our Great National Parks, narrated by former President Barack Obama. This series debuted on Netflix in April 2022, so it is new and should be ‘mostly’ new to your students. Let me start by saying that you need to be careful here not to violate copyright rules. You may have heard there are different rules for everything from books to websites to movies for educational purposes and believed, as I once did, this meant that you could use anything as long as it was being used to teach your students. However, this is far from true, and companies are now cracking down, including Netflix. (A teacher friend of mine recently got a not-so-lovely letter from Disney about a movie night she held for her 5th graders and their parents in her classroom, she was able to pay a small licensing fee and resolve the issue, but beware!)

The Netflix official policy is that its videos and shows are only for personal viewing by the Netflix member. But they have an “Educational Screenings Permission” for some educational shows and documentaries on their site, and Our Great National Parks is included on this list. (I put details below on how to figure this out; obviously, you must be a Netflix subscriber to use their materials, so keep this in mind.) If you have an administrator who requests this type of information to show movies in your classroom, you can include it on your lesson plans or, as in my old school, the permission form that had to be signed by the principal and media specialist and hung on your door on the day of the showing (true story!).

Like other nature documentaries, Our Great National Parks is beautifully filmed using the best nature videographers in the business (some of whom are Planet Earth alumni). I hope they release a making-of companion someday because I can only imagine the work it took to get some of the incredible images they managed to capture on film. The premise of the show is to explore national parks around the globe, an idea that was pioneered by America over 100 years ago. While the first episode is more of an overview, the other four episodes each focus on one national park, from Kenya’s Tsavo national park (episode 3) to Monterey Bay National Marine Sanctuary off the coast of California (episode 4).

I doubt many kids will take the croc-
odile’s side over the fish the way they did the seals in the Planet Earth episode, but this type of nature ‘suspense’ is about as scary or dramatic as the show gets and is rated TV-PG. (Common Sense Media, another of my favorites for all things media coverage for classroom use, rates it as a 6+.) I also love that the show discusses the authentic human aspects of national parks, from the political fight to preserve otherwise profitable lands to the cultural and ecological significance these natural places contain. For your students with disabilities and emerging bilinguals, the show comes with audio descriptions (for students with visual needs), captions in several languages (including English, Spanish, and even Chinese), and voice-over in several alternate languages as well (however, these are narrated by other actors, not President Obama).

One of the drawbacks of the alternative mission of Netflix rather than the BBC is that no accompanying teacher materials are provided for this show. I would never advocate just starting a show, playing for an entire class, and that being a lesson plan, so my suggestions for this one are simple. First, consider what standard you would like to cover with the showing. For this example, I am going to use the NGSS standard HS-ESS3-3- Create a computational simulation to illustrate the relationships among the management of natural resources, the sustainability of human populations, and biodiversity, because what better way to get the kids doing a little math in science class than by showing a cool video for engagement?! The science and engineering practice suggested for this standard is Using mathematics and computational thinking, and the crosscutting concept is Stability and Change.

Then, find something you can use as a hook or engagement tool from the show to tie into an activity involving this standard. Episode 2, The Chilean Patagonia, discusses a “re-wilding” of areas in Chile, including 24 national parks, some of which were established by the billionaire founder of The North Face, Douglass Thompkins, and his wife, Christine. Students can create charts showing the acres of the park covered over time in the country, the amount of money per acre required to create a national park, and the number of animals, including human animals, that have been affected by the decisions to protect these areas.

While it may take several searches to find these figures, they are readily available. An article like the one in the Guardian (see resources below) explains a good overview of the controversy that nearly always accompanies the protection of land worldwide. Could you do this activity without the video? Sure, but it won’t be as fun for your students or you!

Questions/comments/something you love with your students you would like to see reviewed? Contact me at holly.amerman@gmail.com.

RESOURCES:
Screenshots: media.netflix.com
Common Sense Media, movie, web, show, and other media reviews over many dimensions, expert, kid, and parent ratings: https://www.commonsensemedia.org/

How to determine if a video on Netflix qualifies for the Educational Screenings Permission

• Go to media.netflix.com
• Type in the name of the movie or documentary you want to use (most of the approved ones are truly documentaries, I have yet to find any shows or movies that are included).
• Click on the show’s image when it appears below the search box.
• You are looking for the Educational Screenings Permission box in either the synopsis text or on the screen for that show.
• You can click on the link and, as it states in the information, provide this for your administrator or anyone else who needs to see it for permissions.
• If it is missing the image or is not in the synopsis, it is not allowed to be screened for educational purposes.

Test Tubes
• DCIs: 3 of 5. HS- LS1C, LS2A-D, LS4B-D, ESS2E, ESS3A, C, D, but many others can fit depending on your creativity! 🧪🧪
• CCs: 5 of 5. Any and all, depending on your integration 🧪🧪🧪🧪
• SEPs: 5 of 5. Any and all, depending on your integration 🧪🧪🧪🧪
• Ease of Use for Teachers: 3 of 5. 🧪🧪🧪
• Interest to Students: Interest to Students: 4 of 5. 🧪🧪🧪