

# SCHS Advanced Placement Environmental Science

## 2020-2021 Summer Assignment

**Welcome to AP ES!** We have a lot of information to cover this coming year and to get started you will be preparing for the ecology unit on your own this summer. It is imperative that you watch the videos **for understanding**.

In addition to your textbook, I would recommend that you either purchase or check out from me the **Princeton Review AP Environmental Science** book. You can find this book used on amazon.com for a reasonable price.

### Summer Assignment:

Your summer assignment consists of 2 parts:

1. Watch and take notes on a series of Intro to Environmental Science videos in your AP ES Spiral Notebook.
2. Complete the AP ES Bucket List!

### Part 1: Intro to Environmental Science Videos

1. Use the LINKS below to access the videos. EACH VIDEO SHOULD HAVE A DEDICATED PAGE (Front & Back Handwritten NOT Typed). Every video must have a summary key concepts AND related illustrative examples in your own words. Support your understanding with diagrams when appropriate. (Concept maps, graphs and other figures should be drawn into the notes page)
  - a. Watch Bozeman Video #001: Environmental Science
    - i. [https://drive.google.com/file/d/1Dwhxs4jQi3hYA\\_V1GC22--rheqrGa7Fo/view?usp=sharing](https://drive.google.com/file/d/1Dwhxs4jQi3hYA_V1GC22--rheqrGa7Fo/view?usp=sharing)
  - b. Watch Bozeman Video #002: Environmental Systems
    - i. <https://drive.google.com/file/d/1O6s30WpuU3Je4Zvb8MHRaNrCHGITY4VY/view?usp=sharing>
  - c. Watch Bozeman Video #003: Geology
    - i. <https://drive.google.com/file/d/1bmINBJ7XcIDlqQVLLMh2A2hfj7rElfMZ/view?usp=sharing>
  - d. Watch Bozeman Video #004: The Atmosphere
    - i. [https://drive.google.com/file/d/1U7SofSWbiQvZ6UmsFFZnDbtZB\\_n0eqjA/view?usp=sharing](https://drive.google.com/file/d/1U7SofSWbiQvZ6UmsFFZnDbtZB_n0eqjA/view?usp=sharing)
  - e. Watch Bozeman Video #005: Water Resources
    - i. <https://drive.google.com/file/d/1-KQ1hoemJvIQQ6ntHBbTI-h-rW7ry592/view?usp=sharing>
  - f. Watch Bozeman Video #006: Soil & Soil Dynamics
    - i. <https://drive.google.com/file/d/1D0hqrV9sbu4IdN7J3rWsi942KXSQKvqO/view?usp=sharing>

## Part 2: AP Environmental Science Bucket List

Complete the task listed and provide the appropriate documentation (indicated in parentheses). You must complete **12** of the following options, documented as listed. For every additional **four** that you complete and document successfully, you will earn one bonus point on your first test, not to exceed +5 points.

**Bring all items to class on day 1** and follow these directions:

- Photos of you! ORGANIZED in a type of poster (prefer digital like Canva as I would like to have them printed)
  - **include the # (from list below) of the item on the photo/piece of evidence.** Can't wait to hear about your adventures as you will be presenting on day 1!
1. Enjoy a campfire. (photo)
  2. Make popsicles from edible plants and enjoy. (photo)
  3. Can or jar jams, jellies, or pickles. (photos and a jar to share on day 1)
  4. Get environmentally friendly utensils and use at least 10 times (10 photos in collage)
  5. Go to the Renaissance Festival and eat a giant turkey leg. (photo)
  6. Recycle 10 items of styrofoam at Publix. (photo)
  7. Get a pet fish and keep it alive ALL summer. (dated photos in collage)
  8. Find bioluminescent algae on the shore. (photo)
  9. For one week, try to recycle more by making your recycle bin outweigh your trash. (photo & scale)
  10. Safely SAVE A stranded animal! (selfie with animal)
  11. Eat an ice cream cone with at least 4 scoops of ice cream. (photo)
  12. Go scuba diving, snorkeling, sailing, parasailing, or stand up paddleboarding. (photo)
  13. Visit Providence Canyon State Park. (photo in the canyon)
  14. Watch the movie Before the Flood. (have a conversation with me about your favorite scene)
  15. Combine art and science in a creative way (ex: photo, painting, movie, song) and bring to class on day one. (art item)
  16. Go camping overnight in a TENT. (photo)
  17. Visit Wild Animal Safari in Pine Mountain, GA. (brochure & selfie with an animal)
  18. Meet a STEM professional (not related to you 😊). (photo & one paragraph biography that includes their educational background)
  19. Visit a technical college. (photo & promotional materials)
  20. Grow a plant from a seed. (living plant brought to class on day 1, 5 pictures chronicling growth)
  21. Go to two state parks, national parks, or national forests and take a walk. (photos AND maps)
  22. Go to the Fernbank Museum or any science museum. (photo AND stub)
  23. Go to Line Creek Nature Area and walk barefoot in the water. (photo)
  24. Go to a water-based amusement park. (photo AND stub)
  25. Go to 2 different beaches. Collect sand from each in separate containers. (jars of sand AND photos)
  26. Collect a cicada molt. (molt)
  27. Relax in a hammock outdoors. (picture)
  28. Find a living wild turkey, deer, armadillo, rabbit, opossum, or hawk somewhere in Fayette County. (photo of animal AND photo of you standing where the animal was)
  29. Read more than one book that is not required for any other class. (list, photos, AND 3 sentence summaries. We will check with your other teachers.)
  30. Go to Zoo Atlanta dressed as your favorite animal and visit the matching animal. (stub AND photo)
  31. Make your own clothing. (wear it to school on the first day)
  32. Press leaves from three species of tree in your neighborhood. (leaves & genus/species of each)
  33. Hold a wild frog with your bare hands. (photo)
  34. Go to any aquarium and touch an animal. (ticket stub AND photo)
  35. Go on a hike and find the highest elevation on the trail. (photo of you at highest elevation)
  36. Start a compost pile and show decomposition over the course of 8 weeks. (8 photos)
  37. Go fishing and take a photo with what you catch! (photo)
  38. Go to Callaway Gardens and go to the bird of prey show. (photo AND stub)
  39. Go to Farmer's Market and meet one of the vendors. (photo of you AND vendor)
  40. Go canoeing/kayaking/boating in any body of water. (photo)
  41. Make art (jewelry, etc.) out of collected snail shells. (wear on day 1)
  42. Make a mud slip 'n slide. (photo)
  43. Run a race (at least 5K). (race bib AND photo)
  44. Volunteer at local Humane Society or animal shelter. (photo)
  45. Tour the CDC Museum in Atlanta. (pamphlet AND photo)
  46. Find and identify 4 different snails (seashells) from the beach. (shells AND page with ID information)

47. Hike a mile on the Appalachian Trail. (photo at milemarkers and/or blazes)
48. Visit Jekyll Island Sea Turtle Center. (pamphlet AND photo)
49. Find a living organism in a pond water sample. (photo)
50. Hike up Stone Mountain. (1 photo on the way to the top AND 1 photo at top)
51. Find (do not buy) a fossil and identify the organism. (photo of you and fossil)
52. Go tubing on any river. (photo)
53. Carefully climb the steps to the top of Amicalola Falls (don't drive to the top) (photo)
54. Feed a spider in its web. (photo with you in it)
55. Photograph and identify at least 2 different roadkilled organisms. (photo)
56. Give your pet a bath. (photo)
57. Find and identify two invasive species in Fayette county. (photo & name of species)
58. Write a short story about yourself. (short story)
59. Straddle a state line. (photo)
60. Eat an edible insect. (photo)
61. Go play in the water fountains in Centennial Olympic Park. (photo)
62. Go swimming in a lake. (photo)
63. Raise a tadpole into a frog. (5 photos over time)
64. Go biking. (photo)
65. Get up for a sunrise in 2 different places. (photos)
66. Hunt for fossilized shark's teeth. (photo & tooth)
67. Find a horseshoe crab molt. (molt)
68. Paint or sketch a self portrait. (artwork)
69. Milk a cow/goat. (photo)
70. Find a snake shed/molt. (shed/molt)
71. Make a earthworm compost farm/small container. (bring to class on day 1)
72. Meditate for 30 minutes in a peaceful place. (timelapse video uploaded)
73. Document a roadtrip. (selfies @ 3 different destinations)
74. Visit The Ridge Nature Area in Fayetteville find a box turtle nest cage. (selfie with cage)
75. Visit local organic farm and talk to an owner. (selfie with employee)
76. Go to Disneyworld and take a tour with Kilimanjaro Safaris (photo)
77. Volunteer or make a donation at an animal rescue center. (photo)
78. Visit Historic Banning Mills and go to the raptor show. (photo)
79. Press 5 wildflowers and identify. (pressed flowers)
80. Take pictures of dolphins (photo)
81. Become an expert on a ES topic and give a less than ~1 minute presentation on the first day of school.
82. Create a fake (appropriate) Environmental promposal (photo)
83. Make an ecosphere that includes 2 types of plants and 1 type of animal. (bring on day 1)
84. Take a picture with a pair of identical twins. (photo)
85. Get 3 flattened souvenir (crank machines) pennies from 3 different places. (pennies)
86. Find a wheat penny. (penny to show)
87. Visit a bat colony at sunset (many in TX). (video with self uploaded )
88. Make a sand sculpture at the beach. (i.e. sandcastle, turn yourself into a mermaid) (photo)
89. Narrate a nature scene modeling David Attenborough or Steve Irwin (share video)
90. Grow vegetables and make a dish to eat. (bring a sample on day 1)
91. Pick up litter from a nature area. (photo)
92. Act out an interpretive dance of photosynthesis in public. (video uploaded to Bb assignment)
93. Filter water using a safe method (iodine, UV filter, etc.) (photo)
94. Safely rescue a turtle crossing the road (make sure you move them in the direction they were moving) (photo)
95. Remix a song using a ES topic (video uploaded to bb)
96. Write a one-page summary explaining your stance on vaccinations (print and bring in day 1)
97. Make a ES related board or card game. (bring to class)
98. Participate in a protest or march for a science related issue (i.e. global climate change, vaccinations, etc). (photo)
99. Create biology related artwork to hang in Mrs. Lloyd's room. (bring on day 1)
100. Raise awareness on your social media about a environmental science related issue. (screenshot)

#### ORIGINAL PHOTOS ONLY:

You cannot use an image from any publication or the Web. You must be in the photographs yourself. The best way to prove that is to **place an item in all of your photographs that only you could have added each time**, something that you might usually have on you like a pen or a coin or a key or your cell phone, etc.

Have a great summer and feel free to email me at [lloyd.jill@mail.fcboe.org](mailto:lloyd.jill@mail.fcboe.org) to ask questions about the summer assignment. See you soon!

\*Portions of summer assignment adapted from Kim Foglia's Explore Biology Webpage and David Knuffke and Stephanie Sisk.