

Environmental Science Summer Assignment 2019-2020

Dear Students, Parents, and Guardians,

Welcome to Environmental Science, commonly called ESci! I am expecting next year to be a really great year with a lot of fun activities. I also hope it will be challenging and require you think about things you may not have considered before. Environmental science is the study of the effects of natural and unnatural processes, and of interactions of the physical components of the planet on the environment.

The “problem” with environmental science is that it’s an immense field of study. Not only does it combine various fields of natural science (biology, chemistry, geology, and physics), but it’s also complicated by history, sociology, politics, economics, laws, and ethics. This interdisciplinary perspective is also what makes it such an important and powerful way to look at the world. Because we have so much ground to cover, I have some work for you to do over the summer to get you started thinking along these lines.

Sincerely,

Ms. Austin

Science Teacher

Arts High School

Your Summer Assignment:

1. Sign up for Remind 101 (optional)
2. Watch an environmentally themed movie and write a review about it (due our first class.)
3. Environmental Science related careers (due our first class)
4. Activity and reflection (due our first class)

Assignment #1: Sign up for Remind 101

Remind 101 allows teachers to send texts or emails to groups of students while keeping the teacher’s phone number hidden from the students and the students’ numbers hidden from the teacher. I send out messages and reminders periodically. To join the ESci group, text @7kacbe8 to 81010.

Assignment #2: Watch a movie with a message.

There have been lots of movies with an environmental theme; some are better than others. Choose one of these to watch during your summer break and write a 100 word movie review about the one you watch. These reviews will be shared with your classmates, so be sure to make a recommendation about whether they should see it or not by ranking on a scale of 1 to 5 stars. Email your reviews to d1austin@nps.k12.nj.us. Here are the movies you can choose from, in no particular order:

- Avatar (James Cameron)
- Medicine Man (Sean Connery)
- The Lorax (animated; new version or old one)
- Erin Brockovitch (Julia Roberts)
- A Civil Action (John Travolta)
- Wall-E (animated)
- Day after Tomorrow
- Whale Rider
- The Road (Viggo Mortenson)
- FernGully: The Last Rainforest (animated)
- Idiocracy (2006)
- Biodome (Pauly Shore)
- Hoot
- Water World (Kevin Costner)
- China Syndrome (Jane Fonda)
- King Corn (documentary)
- Food, Inc (documentary)
- An Inconvenient Truth (documentary)
- March of the Penguins
- Free Willy
- Star Trek IV
- Chinatown (Jack Nicholson)
- Gorillas in the Mist (Sigourney Weaver)
- Dances with Wolves (Kevin Costner)
- Pocahontas (animated)
- Fly Away Home (Anna Paquin)
- Into the Wild
- Spirit: Stallion of the Cimarron (animated)
- Rango (animated)
- Happy Feet (animated)

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Assignment #3: Go to <https://www.environmentalscience.org/careers>

Scroll down until you see the careers section. You will see a list of disciplines (careers) represented. Choose one of the disciplines and click on it. Read the content. Then find at least 2 other sources with information about the same discipline. Write a one-page essay (roughly 3 paragraphs). The title of your essay should be "Environmental Science Summer Assignment: _____" (Fill in the blank with your topic.)

Your essay should be written around the following questions:

- Why did you initially choose this discipline? Did you change your mind? If so, why?
- As you researched the topic, what did you find interesting?
- Could you see yourself in this field? Why or why not?

Assignment #4: Go ESci! Pick one activity and write a 1 paragraph reflection.

Here are some ways you can "Go ESci" this summer. Only one is required; and all are fun.

- Instead of driving, ride a bike or take a walk
- Get wet in a downpour (not in a thunderstorm)
- Follow a stream to its headwaters
- Follow a stream to its mouth
- Speaking of water, where does yours come from?
- Watch an ant colony
- Study the waves at the beach
- Spend time at a nearby Lake and observe succession in action (what's succession???)
- Solve the local deer overpopulation problem
- Visit a local recycling facility; make some contributions
- Visit the Urban Environmental Center
- Watch the Discovery Channel
- Figure out why dew forms on the grass at night, but not every night
- Compare star counts in Newark vs. your vacation spot (lay on your back and count stars on a clear night)
- Celebrate "meatless Mondays" by following a vegetarian diet one day a week
- Be a "vegan before 6:00 p.m." No animal products until after 6:00 every day
- Play around with Google Earth
- Grow your favorite vegetable
- Look at a big tree and determine where all that mass came from
- Go fishing
- Follow the path of your favorite gem or precious metal from mine to your ring finger
- Pretend that you have no electricity for an evening
- Where does your electricity come from, and why does it matter?
- Camp out, even if it's in your back yard
- Visit the Essex County Environmental Center
- Pick berries
- Use sunscreen regularly
- Change your light bulbs from incandescent to compact fluorescent bulbs
- Relate the heating of your car's interior on a sunny day to the greenhouse effect
- Watch some birds or bats
- Compare the color and 'blinking' patterns of different fireflies/lighting bugs
- Visit a farm, or at least the farmer's market
- Have a septic tank? How does it work?
- Read the Wall Street Journal
- Tired of the phrase "going green?" Come up with another term.
- Buying organic food? Not buying organic food? Does it matter?
- At the pool? Figure out how many gallons of water it takes to fill it up.