

Lesson 5-2: Communicating your findings

Time	Engaging the Student (Entry Task)	Developing the Ideas--Lesson			Checking for Understanding (exit ticket)
		Student Handout	Teacher/Lecture Notes	Materials	
~60 minutes	<p>Tell the students that they will be creating a product that will be going outside of the classroom and communicates their findings.</p> <p>Hand out the product expectations and review them with the class.</p>	<p>Expectations for Product Handout</p>	<p>Teams should discuss what audience and medium are most suitable for their research and conclusions first. You may ask them to get their proposed medium and audience approved by you before continuing.</p> <p>Create step examples are provided</p> <p>Time should be allotted to writing a first draft of their product.</p>	<p>Create Step Examples</p>	<p><i>Journal Check-in:</i> Spend a few minutes answering reflection questions in journals. “How did you choose your audience? Why are they the best audience to reach with your conclusion and research in order to address the societal problem?”</p>

Expectations for Product Handout

You will make a product that communicates your findings to an audience outside the classroom. This can be a proposal for a policy change, governmental action, or education program at the school or community level; a public service announcement on the radio or in a newspaper; a letter to the editor, mayor or principal, etc. You may decide which method of communication is most effective for the type of information your team has found and which medium would reach the audience you feel would most benefit from learning about your scientific conclusion.

The product should:

- Introduce your problem/topic (Ocean Acidification)
- Share your findings and conclusions from your research
- Have a message: a call to action, why the findings and conclusions matter, what impact the conclusions have on the societal problem
- Language should be suitable for the audience (a letter to a mayor should be formal, a public service announcement should avoid jargon)

Create step examples: (These are examples, but not necessarily exemplars!)

Dear members of the United Nations,

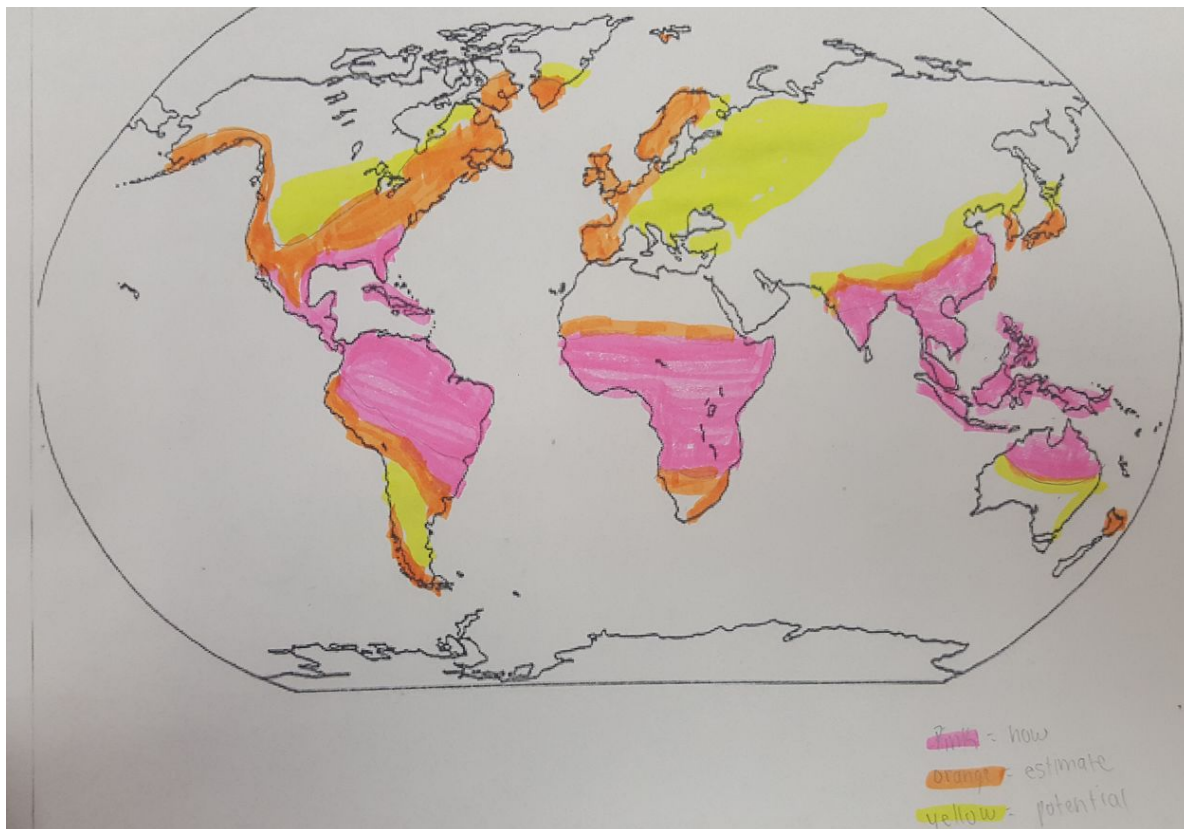
We are students of Chicopee High School in Massachusetts, US. For the last two weeks we have been researching how the absence of elephants in a greenland environment can affect the environment itself. From our research, elephants are key to their environment because they contribute to the well-being of the natural environment as well as the other animals in this habitat. There are currently 470,000 elephants existing in the Sahara and Central Africa. The reason for such a low population is over-hunting and humans expanding into their habitats.

But why should we care what happens to elephants? Elephants are one of, if not the most important animals in their environments. They truly shape their habitat from clearing dead trees to making room for new ones to making water holes for other animals and themselves to drink. For example elephants make trails through tall grass. This helps other animals get away from brush fires. They also spread seeds without knowing. In fact there are some seeds in the African greenlands that need to be grown by going through the elephant's digestive system. Elephants play key roles in their habitats and without them many organisms would not be able to survive.

So what happens when the elephants in an area are gone? First off there will be a decrease in the water supply due to the lack of water holes that elephants usually create. Also, there will be an increase in dead trees. Because of the dead trees, new trees won't be able to grow causing a decrease in healthy air. Brush fires are common in these environments and would claim the lives of hundred of animals with no elephant trails for escape. Without elephants, some seeds wouldn't grow causing an entire type of plant to go extinct. This could cause the beautiful green land to turn to a barren wasteland.

As you can see, elephants are key to their habitats and the animals there. This is why we should all do whatever we can to save the elephants and to stop poachers from killing these important animals. We recommend an increase in the guard on the elephants to help them survive and a fine on the poachers that is greater than the amount they would make from the ivory. Thank you for hearing our ideas and concerns on this topic. We truly hope you help the elephants and keep up the good work.

Map of predicted Zika spread based on climate change data and mosquito climates:



pink=current areas where the mosquitos that can carry Zika live

orange=estimated spread of these mosquitos with climate change

yellow= if Zika were to spread to the orange areas, Zika could spread by human transmission to these places

Dear Mayor Kos,

In a recent study at Chicopee Comprehensive High School, my classmates and I have done research about the economic and environmental benefits of electric cars. Currently in our area we only have two electric car plug stations; those locations are 500 Memorial drive and 765 Memorial drive. We have found that electric cars are beneficial for the environment and can cost less on average. Although they do burn CO₂ while charging, electric cars don't burn any fossil fuels or have any tailpipe emissions. They have a lower cost per mile and cost less for maintenance. Currently there is 53.3 years worth of oil left on Earth. When the oil runs out we will need a new method of transportation. If we are going to transition to electric vehicles, we need more charging spaces in Chicopee. Therefore we are asking to have more plug-in stations in the city, so this eco-friendly option is available to everyone.