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National Council for
Geographic Education

APHG Bell Ringers

For the week of January 13, 2020 – Agriculture and rural land use.

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*Students should always be prompted, probed, so to speak, to answer the WHY question when responding to geographic inquiry ☺ Hope everyone had a nice relaxing winter break!

Question #1: Have your students brainstorm the factors that determine how their favorite foods go through the process of “seed to supermarket” OR otherwise known as “production to consumption.”

Favorite Food	Factor #1	Factor #2	Factor #3	Factor #4	Factor #5	Other?
Pizza	Growing of tomatoes	Raising of dairy cows	Location of dairy farms	Government subsidies to farmers	Personal income to purchase pizza	

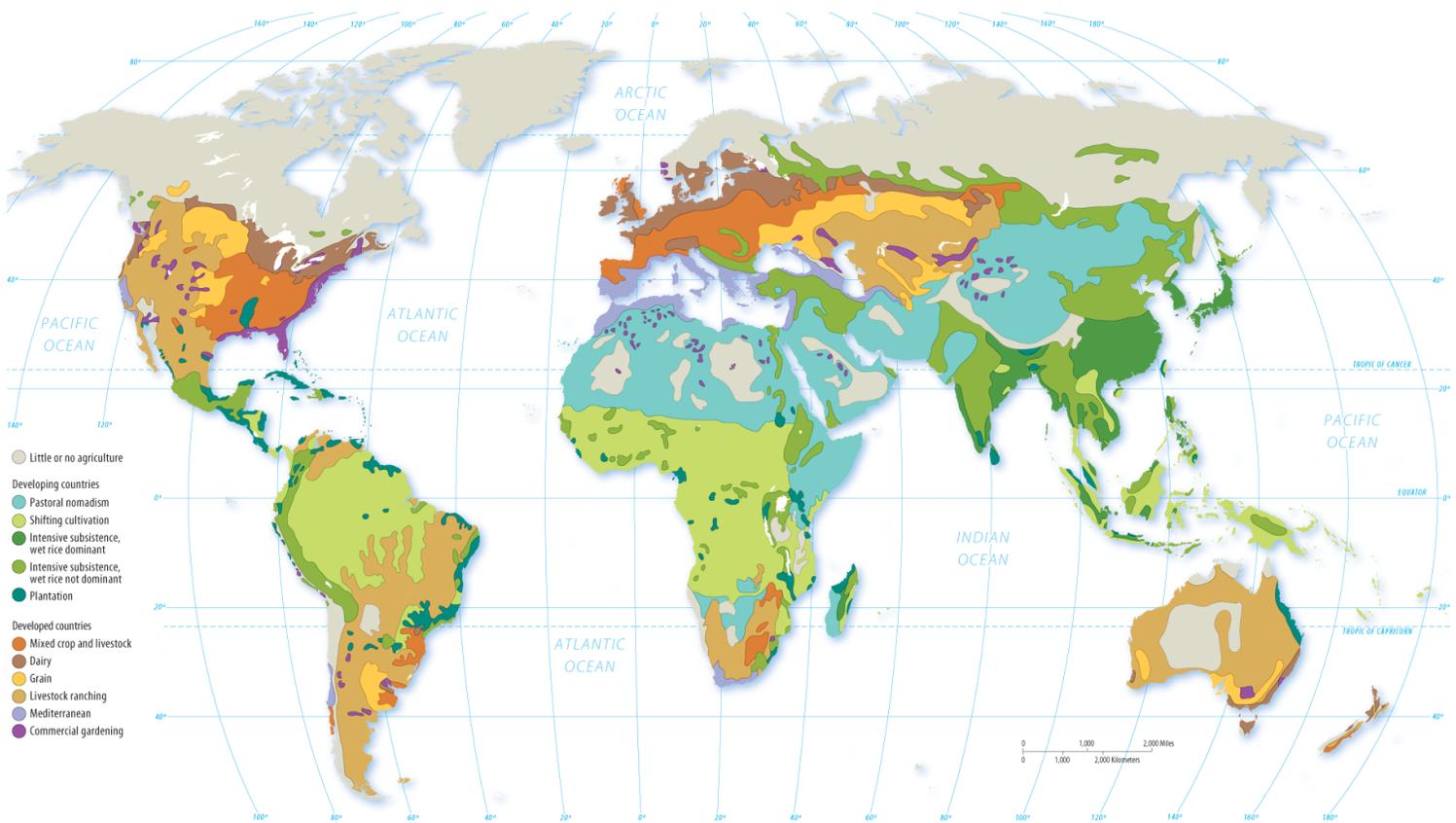
Question #2: Use a Goodes’ Atlas or any other atlas of your choosing or your APHG textbook:

How can using the classic Whittlesey Agriculture Regions Map explain the differences in Agricultural practices between MDCs and LDCs? (There are 11 regions in total; 5 in LDCs and 6 in MDCs).

Regions	MDCs agricultural practice	LDCs agricultural practice
North America	Commercial agriculture – factory farming	
Indonesia		Rice – intensive agriculture

Give students a blank world map

Have your students color in this map so they can use it as a resource going forward 😊 Here is a sample of what the final map should look like.



Question #3: Give this bell ringer question to your students the night before so they are ready to discuss when they come in to class 😊

Ask your students to find five items in their pantry or somewhere else in their home that has a corn byproduct or palm oil byproduct in it. Have them bring the detail of this item(s) in to school the next day.

Corn is a pervasive crop in global agriculture, especially in the United States where there is 5x as much corn grown as in any other place in the world. This will lead to a great discussion on the pervasiveness of corn in pretty much everything we eat and drink and use in our day to day lives 😊 for a list of corn derivatives please go to:

<http://www.livecornfree.com/2010/04/ingredients-derived-from-corn-what-to.html>

As an extension to this activity, have your students watch the How Stuff Works episode from the Discovery Channel on Corn. They can write a reflection on the importance of corn in their day to day activities, etc. This is a good activity for when you might be out with a sub or to use as a flipped classroom assignment which I have done in the past.

<https://www.youtube.com/watch?v=LGJ6D3KNJ9E> (42:00)

Indonesia's Palm Bomb from HBO Vice is an excellent segment on the palm oil industry and how it is impacting the environment and way of life of the indigenous peoples of Indonesia's rain forest. The segment also gets into the globalization of palm oil products and how this industry drives the production. Think industrial slash and burn agriculture. Go to: <https://www.youtube.com/watch?v=7xOPK1169SU> Start the segment at about the 15:00 mark. Segment is approximately 13:00 in length.

Question #4: Define the term Food Desert. Where in the world might one find one of these and what are the agricultural and economic implications of them based on the level of development of the place/region where they are found?

*Use the following Food and Environment Interactive Atlas from the USDA to have students and yourself do further research and analysis on this topic: <https://www.ers.usda.gov/data-products/food-access-research-atlas/go-to-the-atlas.aspx>

The following is an interactive food desert map of Atlanta taken from the Atlanta Journal Constitution. <http://www.myajc.com/news/food-deserts-map/> If you/your students are fluent in using GIS you could create this same type of map for your own community ☺

Great article from, City Lab, January 2018 titled it's not the food deserts, it's the inequality @ <https://www.citylab.com/equity/2018/01/its-not-the-food-deserts-its-the-inequality/550793/>

As a practice exercise for writing FRQs, have students work through question #1 from last year's east coast exam which is on the topic of Food Deserts. <https://apcentral.collegeboard.org/pdf/ap19-frq-human-geography-set-1.pdf?course=ap-human-geography>

Question #5: What are the pros and cons of Genetically Modified Organisms/Foods? Why do European governments regulate GMOs at a much higher and stricter level than we do here in the U.S.?

Pros	Cons
Feed more people	Disruptive to the environment

Exceptional segment from a 2016 CBS Sunday Morning episode which does a great job of balancing out the pros and cons of GMOs: <http://www.cbsnews.com/news/digging-for-seeds-of-truth-in-gmo-debate/> (10:30) With associated article ☺

Are GMOs good or bad @ <https://www.youtube.com/watch?v=7TmcXYp8xu4> (9:02)

Ted VIDEO related to the question of whether or not we have enough food currently in the world to feed our growing population. Can generate a great discussion in class on the pros and cons of GMOs:

http://www.ted.com/talks/jonathan_foley_the_other_inconvenient_truth.html (17:47)

Additional resource. The National Agricultural Statistical Service is also a great online resource for everything related to agriculture in the United States. Fact sheets, production maps and graphs, etc. <https://www.nass.usda.gov/>