

Home Ec and Climate Change: Time To Consider a Revamp

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Climate change needs large-scale solutions, but also high citizen engagement, and an opportunity exists in high school. The former home economics class, now called family and consumer sciences (FCS), could become a mandatory yearlong class with a new focus on what the family can do to lessen climate change and adapt to a new world.

I have a strong appreciation for the field of FCS because I majored in home economics (HE) in college and graduated with a degree in fashion design. A master's in teaching in home economics with a specialization in historic preservation and a doctorate in architecture with a focus on environment and behavior followed. Now at the Harvard T. H. Chan School of Public Health, my HE background has returned home to public health, one of the foundations in the field of FCS/HE.

In the “home ec” heyday, agriculture schools across the United States offered classes through Cooperative Extension to teach farmers’ wives about nutrition, growing vegetables, sanitation, and sewing. During World War II, home ec Extension classes taught rationing, healthy eating, preserving food, repairing clothing, renovating houses, and furnishing with what was at hand.

Many efforts have been made to elevate the modern public perceptions of FCS. Some have proposed to change the FCS name, revamp the curriculum, or focus more exclusively on certain facets of FCS; however, these approaches have downsides. For example, lectures about obesity are a form of shaming and not everyone wants to be reminded how to eat properly. Enrollment in FCS high school classes has declined, classes now



At a friend's house in Brookline, Massachusetts, a junior high school student, Magdalena, shows her mother, Pilar Botana, the charger that would be plugged into an electric car. Magdalena hopes to convince her mother that their family should have an electric car too.

fit into 9-week cycles, and fewer college students choose FCS as their major. High school administrators are beleaguered by test scores and fewer students can justify learning traditional FCS

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topics. But now school administrators, high school students, and colleges have a greater problem.

Fires, hurricanes, heat waves, animal extinction, and worldwide crop failures emphasize the need for high school students to identify positive ways they could address climate change in their own homes. FCS teachers are an existing resource and could enroll in new courses offered at a nearby or online college to receive a higher salary as part of climate change re-certification. Teachers in related high school classes, such as technology, art, and science, could offer individual classes that become part of the new curriculum. High schools could invite community volunteers and retired teachers to the school to learn what they might teach as part of this year-long structured FCS climate change curriculum.

The teachers do not need to spend time discussing the crisis of climate change, because the media already covers real-life events, but teachers can do what they have always done since the founding of the American Home Economics Association in 1909 by MIT graduate, Ellen Swallow Richards—they can focus on the home and family. For example, lettuce grown in the backyard does not require trucking, discarding expired lettuce, or recycling the clear plastic container. Keeping a baby cool in a historic house made out of old growth lumber with restored wooden windows covered in storms and screens and surrounded by tall trees is better than using air conditioners to cool a new house that sits beside a heat island asphalt driveway. Sewing is a better option than buying new clothes.

Classes would cover gardening, healthy cooking, rewiring a lamp, insulating, installing the most efficient home heating/cooling system, deciding where to put the electric vehicle recharging station, designing the best home bike parking, resewing clothing, glazing a window, selecting efficient street lighting, and planting and maintaining trees near the house for cooling.

Art students could study World War II posters picturing Victory gardens, and design new posters to enter into a competition judged by community members. The winning flyers, produced by the high school technology class and posted throughout town, could be a joint student and community product. If a community building has to be

demolished, high school students could lobby for and help with deconstruction and reselling of the materials, including bricks, old growth lumber, doors, and hardware.

Arborists could teach students the most effective way to plant and maintain trees in their yard and street. Students could study the tree root spread under a healthy lawn to see the value in turf grass versus decks, patios, and driveways. Students could compare the benefits if the lawns do not have chemicals, water comes from a rain barrel, and the cutting is by a push or electric mower. If students become tree stewards, neighbors would be more willing to have trees on their street. Once the students start their careers or go to college, parents could tend to the trees and returning children could look up to see their tree's crown.

Lessons could come from the Dutch Downshifters who work to reduce consumption. The downshifters go beyond responsible purchases and live sustainably based on cost, eco-friendliness, and health/well-being. They take a less well-paying job, consume less, walk or bike more, compost, buy green products, eat less meat, and do home maintenance.

Colleges could offer degrees in this new home sustainability domain by identifying courses that are already offered and having students propose new courses. Agriculture schools with Extension classes could teach adults the same skills taught in the high schools. The list could expand as teachers, students, and volunteers propose new topics. A new national curriculum could be developed based on the most preferred classes.

With students and parents worldwide making do with less during the COVID-19 pandemic, the time is right to assess which purchases are necessary. Teenagers are large consumers and, with their leadership, the market could shift from making money through selling products to making money through paying people to repair, renovate, plant, and develop energy efficient technologies. Products could be labeled for their lifespan and ability to be repaired.

Students have succeeded in pushing their parents to not smoke, use seat belts, and recycle. Once a student knows the right professional to call to install an electric vehicle charging station

on the outside of their home, that student would be the EV expert on the street. As digital natives armed with the high school home sustainability lessons, students could apply their technological skills and take the lead in their own home, street, and community to address climate change.

With the need for everyone to drive less, purchase less, eat better, and renovate or build sustainable homes, now is the time to revamp the high school FCS class so students are not waiting for leaders to implement large-scale solutions. Students will still enroll in classes that guarantee a career, but a mandatory home sustainability class gives every student the tools to address their future and help their parents and siblings.

As a former home ec major and a parent and grandparent concerned about climate change, I have proposed to teach a new course at Harvard Chan titled, “Moving the Needle Faster on Climate Change: Environmental Benefits of Historic Homes, Lawns, Trees, and Vegetable Gardens.” If similar classes become available across the country, FCS teachers could see their high school desks fill with a wide range of students eager to save their planet one house and one yard at a time.

What topics for lesson plans would you like to have for teaching your junior and senior high school students about addressing climate change in the home, and would you like these to be freely available?