

# The evolution of agriculture in the Pacific Northwest: An elementary curriculum development project

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## Introduction

Innovative and engaging lesson plans and curricula are needed to engage more K-12 students in STEM careers. The University of Idaho, College of Natural Resources McCall Outdoor Science School (MOSS) has great expertise in providing engaging learning experiences to K-12 students for over ten years. In partnership with the Site-Specific Climate-Friendly Farming (SCF) and the REACCH Project, it is our goal to create innovative and hands-on agricultural curriculum that will guide students through the past, present, and future of agriculture. The proposed curriculum will be tested in a classroom in fall 2015 before submitting the curriculum and test results for publication to a peer-reviewed practitioner journal.

## Methods

We are developing a primary school curriculum for 4<sup>th</sup> grade students to enhance their learning of agriculture and climate change. It will satisfy Common Core requirements and Next Generation Standards for Idaho, Oregon, and Washington. The curriculum will be three weeks long with a total of sixty lesson plans. Each day of the curriculum will cover social studies, reading, science, and math, with themes that connect all subjects. There will be a theme for each week- the past of agriculture, present agriculture, and the future of agriculture. Part of the curriculum will focus on precision agriculture and climate change awareness.

Past of Agriculture  
Historic agriculture - 1950



Source: <http://landcover.usgs.gov/luhna/chap10addfig.php>

- How did early people match their crops to the environment?
- Methods of food production
- Utilizing microclimates
- Considering indigenous soil knowledge

Present Agriculture  
1950 - Present



Source: <http://www.sociedadesdedesarrollo.com/farming-in-agriculture/>

- Green revolution- scientists collaborating with farmers
- Advancements on crop management
- Environmental impacts i.e. greenhouse gases and natural cycles
- What is happening to our societies and social structure during technological advances in agriculture?
- What does this mean for feeding ourselves?

Future of Agriculture  
Present - ?



Source: <https://kdtemple.wordpress.com/2014/11/05/day-5-current-issues-in-the-classroom/>

- Precision agriculture and other emerging technologies
- What does conservation look like?
- Can we enhance efficiency and reduce waste from our current systems?
- How will future food demands effect a growing world population?