

Virtually on the Farm

Beef Education Resource

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Overview

A virtual tour of a farm will allow students to experience a day on the farm. By engaging through virtual reality with different facets of the agricultural industry, students will examine STEM on the farm in the comfort of their classroom or home.

Standards Addressed

- RST.6-8.1 Cite specific textual evidence to support analysis of science and technical texts. (MS-ESS3-2), (MS-ESS3-4)
- RST.6-8.7 Integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually (e.g., in a flowchart, diagram, model, graph, or table). (MS-ESS3-2)
- WHST.6-8.1 Write arguments focused on discipline content. (MS-ESS3-4)
- WHST.6-8.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration. (MS-ESS3-3)
- WHST.6-8.9 Draw evidence from informational texts to support analysis, reflection, and research. (MS-ESS3-4)
- MP.2 Reason abstractly and quantitatively. (MS-ESS3-2)
- LS4.D Biodiversity and Humans. There are many kinds of living things in any area, and they exist in various places on land and in water. (2-LS4-1)
- ETS1.B Developing Workable Solutions. Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (Secondary to 2-LS2-2)
- W.2.7 Participate in shared research and writing projects (e.g., read several books on a single topic to produce a report; record science observations). (2-LS2-1),(2-LS4-1)
- W.2.8 Recall information from experiences or gather information from provided sources to answer a question. (2-LS2-1), (2-LS4-1)
- SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts and feelings.

Plan for Implementation

1. The facilitator will contact local agriculture organizations (e.g., State Beef Councils <http://www.beefusa.org/qualifiedstatebeefcouncils.aspx> , county/state Farm Bureaus <https://www.fb.org/> , veterinarians and/or veterinary schools, restaurants that practice farm to table, etc.) to find field trip possibilities.

2. For additional resources, review the Immersive Experience Toolkit and Templates, found at <http://www.agfoundation.org/on-the-farm/learn-about-beef>.
3. Upon securing field trip venues, students will visit and use VR and DSLR cameras to record aspects of their visit. Consumer-level VR cameras such as Ricoh Theta and Samsung Gear at a price point of less than \$200 are useful for such tasks.
4. Upon returning to the classroom, students will write short articles about their trip and what they have learned. Students will have a choice of presentation mediums to present their information. Lessons on photo editing and writing will be incorporated to ensure quality work. Additional topics of related research will be assigned and uploaded.
5. The articles and information will be published on a free website host (e.g., Weebly or Google sites). Students will then use inexpensive viewers such as Google Cardboard to experience the mini-STEM in agriculture virtual visit. This work will be presented to students in other classes and clubs as well as teacher science meetings and conferences.

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The Beef Checkoff Program funded development of this educator resource. The Beef Checkoff Program, MyBeefCheckoff.com, was established as part of the 1985 farm bill. The checkoff assesses \$1 per head on the sale of live domestic and imported cattle in addition to a comparable assessment on imported beef and beef products. In states with qualified beef councils, states may retain up to 50 cents of the dollar and forward the other 50 cents per head to the Cattlemen's Beef Promotion and Research Board, which administers the national checkoff program, subject to USDA approval.