



# How Germs and Pigs Help Our Crops

## Video #330

### Developed for Grades: 2nd - 5th

The WOW videos have been developed to inspire students to learn more about **NGSS Life Science and/or Earth Science Disciplinary Core Ideas**. These could include:

- Plants and animals (including humans) can change their environment.
- Living things need water, air, and resources from the land.
- Humans use natural resources for everything they do.
- All organisms have internal and external structures that serve various functions in growth, survival, behavior and reproduction.
- Importance of ecosystems and habitats
- Cross cutting concepts like patterns, cause and effect, etc.

The WOW videos and their support documents can also be used with **English Language Arts**. Here are some ideas:

1. Select a few questions from the Know-It-All section and have students write their answers.
2. Have students write a story related to the topic. They could even add illustrations. For some grades students could read their stories and/or video tape their readings to share.
3. Students could write a poem, a play, or a song based on something in the video that created an emotional response for them.
4. Key words in the video can be used in creative writing assignments.
5. Older students could explore the difference in learning from video as opposed to a book. What are the advantages and disadvantages?

## Answer Key for Know-It-All

1. They absorb and store the nitrogen in their roots. The bacteria living on their roots help transform the nitrogen into a form that the plants can soak up through the soil.
2. C - Bacteria
3. D - about 80%
4. The farmers use the help of piglets to stomp the cover crop into the ground and upturn the soil with their shovel shaped snouts. Their poop or manure helps fertilize the soil and make it better for growing as well.
5. Just about anything in your fridge or cupboards! Some groceries, like processed foods, are made up of many different ingredients and may not look like any one thing that grew on a farm. Check the container for its ingredients list, however, and the true picture may come into focus.

