



## *Episode 2 - Harv in the House*

Thank you for joining us on *The Buzz*, a next generation science show, where YOU are part of the cast. Season One of *The Buzz* is an odyssey through ecosystems science, from the minuscule building blocks that form our environment to the global effect of switching those blocks around.

### **Episode Synopsis:**

Episode 2 finds Harv having problems with his Air Bee n' Bee. It was billed as a luxurious 'crust of baguette' under the dumpster at 7-11, with 'stunning compost heap vistas'. But Harv thinks the place is garbage and his sensitivity to mold makes the spot unbearable. So, he and Adam end up quarantining under one roof. Thankfully, stick insects are immune to coronavirus, and always cough into their elbows. But it soon becomes apparent that Harv needs more than eight inches of space to thrive, and he's not the only one with special requirements. As we ponder the specifics of an ideal space for a stick insect, we lay the foundation of a future ecosystem by germinating seeds, and building a small greenhouse for them.

## Project: Seed Germination & Mini Greenhouse



From the mighty redwood to your basic arugula, many plants start with a tiny seed. But seeds can lie dormant for many years before they sprout. Special conditions are needed to trigger growth, such as temperature and humidity.

### **Suggested Materials:**

- Plastic 'to go' container with transparent lid OR a transparent plastic soda bottle
- 1 packet of seeds of your choice. These can be acquired at most hardware stores, all garden stores, online, or from *The Buzz*
- Soil. This can be found outside anywhere, at most hardware stores, all garden stores and online
- A sharp tipped scissors, knife or other poking tool for making small holes in the plastic
- Tape & writing tool or permanent marker for labeling
- Some access to sunlight or a full spectrum lamp

## **Project Previews & Supplemental Materials**

Using a plastic container, Adam & Harv will make a greenhouse using a method similar to this:

[Mini Greenhouse or Humidity Dome to Start Seeds](#)

Using plastic juice or soda bottles, you might also choose to make a greenhouse like this:

[Make A Miniature Greenhouse From A Recycled Plastic Bottle](#)

### **Some of the Next Generation Science Standards Addressed:**

MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. [Clarification Statement: Emphasis is on cause and effect relationships between resources and growth of individual organisms and the numbers of organisms in ecosystems during periods of abundant and scarce resources.]

Constructing Explanations and Designing Solutions

Constructing explanations and designing solutions in 6–8 builds on K–5 experiences and progresses to include constructing explanations and designing solutions supported by multiple sources of evidence consistent with scientific ideas, principles, and theories.

Construct an explanation that includes qualitative or quantitative relationships between variables that predict phenomena. (MS-LS2-2)

Cause and Effect

Cause and effect relationships may be used to predict phenomena in natural or designed systems. (MS-LS2-1)

Scientific Knowledge Assumes an Order and Consistency in Natural Systems

Science assumes that objects and events in natural systems occur in consistent patterns that are understandable through measurement and observation. (MS-LS2-3)

Science Addresses Questions About the Natural and Material World

Scientific knowledge can describe the consequences of actions but does not necessarily prescribe the decisions that society takes. (MS-LS2-5)