

Engineer a Beanstalk





Benefits of Play: Cognitive, Creative, Communicative, Social

Grow strong minds as tall as a beanstalk!

STEAM Skills: Arts, Engineering

Grades: 1 and 2

Materials:

- 10 pipe cleaners
- plastic egg (Easter egg)

Step 1: Students begin by drawing/designing what their beanstalk may look like. Students are given up to 10 pipe cleaners.

Step 2: Build a beanstalk using up to but no more than 10 pipe cleaners. The beanstalk must be at least as tall as the lengh of the student arm from wrist to elbow. The beanstalk must be able to stand on its own and be able to hold a plastic egg without it being wrapped or tied to the beanstalk.

If they cannot get it to work after testing it with the egg or if it cannot stand on its own, they need to begin again and use the experience to help make a new beanstalk. Step 3: When students are successful - or even when they're not - they need to complete a design process questionnaire asking them the following:

How many pipe cleaners did you use?

Were you able to build a beanstalk that can stand on its own?

Was the egg able to balance on the beanstalk on its own?

How many times did you attempt to build your beanstalk in order to get it to work?

This play-based activity was submitted by Dina Nichols from Washington Elementary, San Diego, CA