

Talk to your plants!

Brief summary:

In this experiment you will talk to some growing plants to see if plants who are treated like friends grow stronger and faster than plants who are given the silent treatment.

You will need:

- Eight seeds (beans or peas are both sturdy and fast growing)
- Eight small plastic planter pots (check with your nursery)
- Enough potting mix to fill each pot
- Water
- Labels and pen

What to do:

Step 1. Label four of the pots with the name "silence" and the other four with the label "happy chat" (or something similar).

Step 2. Fill each pot 3/4 full with soil. To plant the seeds, make a small dip in the top of the soil about 0.5-1cm deep. Place the seed in the dip, cover with a small amount of soil and gently press down so the soil won't wash away when watered. Lightly water the plants and place them all in a sunny place. Lightly water both sets of plants daily.

Step 3. Each day you should take your "happy chat" plants away from the "silence" plants and spend 5 minutes talking to it in a happy and positive way. For example, you can tell the plants stories, or talk about your day or the exciting things they have recently done, as well as encourage them to grow tall and strong. Make sure you are consistent in the time and regularity of your 'motivational' chats.

Step 4. Continue watering and talking to your plants for 4 weeks. At the end of 4 weeks compare the two sets of plants: which ones are looking healthier? Is there any evidence to suggest that plants who are talked to look happier?

Step 5. In addition to visual comparisons you can weigh the biomass of the two sets of plants. To do this place all of the plants that have grown from your "silence" group on the scales (including any bits that might have fallen off) and record the total weight (don't weight any pots that didn't grow). Divide the weight by the total number of plants weighed. This will give you an average biomass per plant and will even out the loss of data from any plants that didn't grow. Repeat with the "happy chat" group.



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Step 6. Finally, you can plant your seedlings in the garden and enjoy eating your beans or peas!

Take it further:

Repeat the experiment with the following:

- Talking aggressively to plants;
- Playing different types of music to plants (e.g. jazz, classical, rap, heavy metal, pop); or
- Loud versus soft noises.

Have a look at the other plant growing experiments: *How do seeds grow?* and *Potato shoots!*

Big questions:

Investigate these plant facts:

- What are some of the most unusual plants you can find?
- Where can you find the oldest plants in the world?
- What is the biggest plant? What is the smallest?
- What is the smelliest plant?
- Do some plants really eat meat?
- How many different plants are there on Earth?



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