

DO IT!

This Bitter Be Good!

Some people like broccoli and some people hate it. There may be a scientific reason! Here is a test to see if your dislike of veggies is genetic?

You'll Need



- 1) Cruciferous Vegetables (e.g. Broccoli, Collard Greens, Kale etc)
- 2) Other Vegetables (e.g. Carrots, Yellow, Orange or Red Bell Peppers)
- 3) Cutting Board & Knife
- 4) Paper Towels
- 5) Paper & Pencil
- 6) Juice or Water
- 7) PTC Paper (available from Carolina Biological Supply Company)
- 8) Blind Fold

- 1. Survey.** Take a survey to see whether who likes or dislikes each of the vegetables chosen for the experiment and record the results. Explain that some people may dislike certain vegetables because they taste bitter, but not everyone can taste this bitterness.
- 2. Design a taste test.** Break into small groups and present the SciGirls Challenge: Determine whether tasting the bitter compound PTC influences which vegetables a person likes. Have youth brainstorm ideas for how to conduct a blind taste test. They will need to come up with a way to score the level of bitterness in each vegetable (on a scale from 1 to 10, by judging facial expressions or verbal responses). Watch girls design their own taste test on Select Science Cooks! (Brainstorm & Experiment.)
- 3. Test for PTC sensitivity.** Hand out a strip of PTC paper to each youth and explain that it contains a bitter compound similar to the one found in some of the vegetables they tested. Have them touch the strip to their tongues to see if they can taste it. The bitterness can be overwhelming so have something (like juice) available to drink!
- 4. Evaluate results.** Compile data into graphs or charts. Did youth who tasted the PTC score the broccoli as more bitter? Did these same youth originally say they disliked broccoli? Did any youth who couldn't taste PTC dislike broccoli?