

Summer Science Activity: Neon-Bright Butterfly Feeder Experiment

Materials:

- Granulated sugar
 - Clean kitchen sponge (bright color like pink, orange or yellow), cut into strips
 - Glass jar or plastic bottle
 - Bright colored electrical tape (preferably red)
 - Plastic flowers (optional)
 - Hammer and large nail (or electric drill)
 - Tweezers
 - String
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Procedure:

1. **Nectar recipe:** Mix together 1 part sugar with 4 parts water in a saucepan. Bring to a boil over medium-high heat and let it bubble for about 3 minutes, until the sugar dissolves. Set aside for 10 minutes, then cool in the fridge. (If you make a large batch of nectar, it can stay fresh in the fridge for about 10 days. Keep step #8 in mind when calculating quantity.)
 2. Make a small hole in the lid of your jar or bottle. A parent can help by using an electric drill or by supervising while you hammer a large nail through the center of the lid. Be sure to place a sturdy piece of wood under the lid, so you don't accidentally bang a hole into your kitchen floor!
 3. Twist off the lid if you haven't already and poke the corner of the sponge through the small hole. Use tweezers if necessary to pull the corner through from the inside to the outside of the lid. This should be a snug fit to prevent too much liquid from being released.
 4. Now comes the fun part: Decorate your jar or bottle with bright colors to attract butterflies. (Although some people put red food coloring in their butterfly nectar, we prefer to keep the nectar color natural and splash color on the outside of the feeder instead.) Keep in mind your decorations should be sturdy and waterproof. Decoupage and stickers both work. Bright red or orange electrical tape serves two purposes: Its intense color attracts butterflies, and it can be used to stick other decorations—like plastic flowers—on the jar securely. Or think of your own creative ideas!
 5. Fill the feeder with nectar, twist the lid on securely, and turn upside down.
 6. Wrap string around the base of the mouth of the jar and extend three or four lines of string up to the top of the feeder to make it hang evenly. Look for a nice, sunny spot for your butterfly feeder, preferable near some colorful (real) flowers.
 7. Observe!
 8. Be sure to change both the sugar solution and the sponge every few days, as bacteria can build up in the solution and make butterflies sick.
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Simple Experiment: Style vs. Substance

Question: *Do bright colors really attract butterflies?*

To make this activity part project, part experiment, make two feeders instead of one, following the same instructions above. But skip step 4 with the second feeder, and keep it plain and simple. During step 6, be sure to hang both feeders in the same vicinity with the same conditions. As for step 7, be sure to observe over several days.

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