

SCIENCE IN THE DARK



Bat Mom to the Rescue

In a big dark cave with hundreds of bats, how does a mother bat find her baby? Some scientists believe that mother bats use a combination of their sense of hearing and sense of smell to recognize their pups. Try this activity to see how your senses compare!



Materials:

- 4 toilet paper tubes
- Tape
- 2 different scents - try pepper and dried rosemary or vanilla extract and lemon juice
- 2 different things that make noise when shaken, like pennies, beads, or buttons

Make the Mama Bat!

1. Pinch one end of a toilet paper tube closed and secure with tape. label this tube "Bat Mom"
2. Add a sprinkle of one scent and one type of small noisemakers to the tube. Pinch the open end closed and secure with tape
If you're using liquid scents like vanilla or lemon juice, try placing a few drops on a cotton ball and putting the cotton ball in the tube.
3. Remember the combination you used, as the scent will now be "Scent 1" and the noisemaker will now be "Sound A".

Make the Baby Bats!

4. Pinch one end of the remaining toilet paper tubes closed and secure with tape. These tubes will be your baby bats.
5. In the first tube, add a sprinkle of the other scent you've chosen. This scent will now be "Scent 2." Add the same noisemaker as the bat mom tube, "Sound A." Pinch the open end closed and secure with tape.
6. In the second tube, add a sprinkle of "Scent 1" and a few of "Sound A" noisemakers. Pinch the open end closed and secure with tape.
7. In the last tube, add a sprinkle of "Scent 1" and a few of the other noisemaker, which will now be "Sound B." Pinch the open end closed and secure the tape.

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Find the Match!

8. Have an adult place the three baby bat tubes in a dark room. Enter the room with your bat mom tube. When you find a baby bat tube, shake and smell both tubes to try and find the match. Remember:
 - One tube will have a matching scent, but not a matching sound.
 - One tube will have a matching sound, but not a matching scent.
 - One tube will have both a matching scent and sound.
9. If the sound and smell match, congratulations! Your bat family has been reunited. If the sound matches but the smell doesn't, keep trying until you find a match.

Science Connection!

Bats use different senses to help them navigate the world. Many species of bats use their sense of sound to help them navigate through echolocation. This ability can help them find food, find their way home, and may even help mother bats locate their babies. Bats also have a good sense of smell which can help them find a mate and identify their young. Scientists have found that certain species of female bats have more olfactory receptors than males which means that these mamas may have a more sensitive sense of smell.

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