



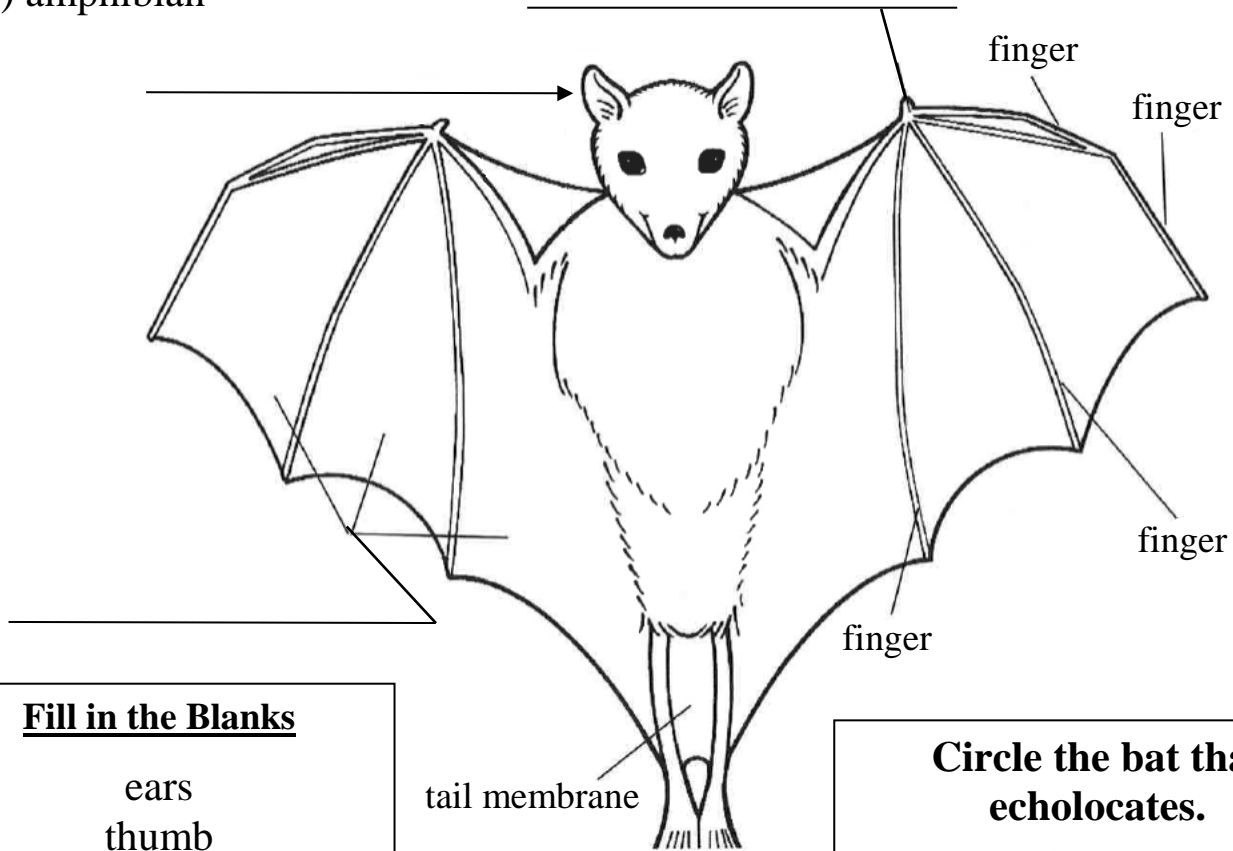
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# Bats-A-Billion – Student Worksheet

Bats are what kind of animal?

- (A) bird
- (B) mammal
- (C) reptile
- (D) amphibian

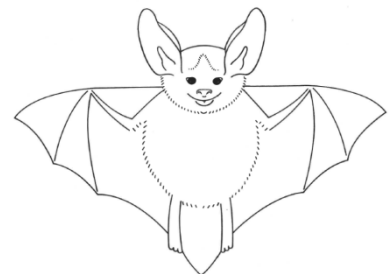
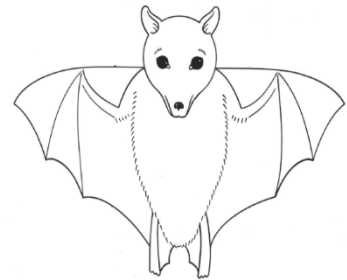
Bats are different from other mammals because they are able to \_\_\_\_\_.



### Fill in the Blanks

ears  
thumb  
wing membrane

### **Circle the bat that echolocates.**



Bats are blind. (Circle your guess)

True      False

Most bats in Texas eat \_\_\_\_\_.

- (A) fruit
- (B) fish
- (C) blood
- (D) insects





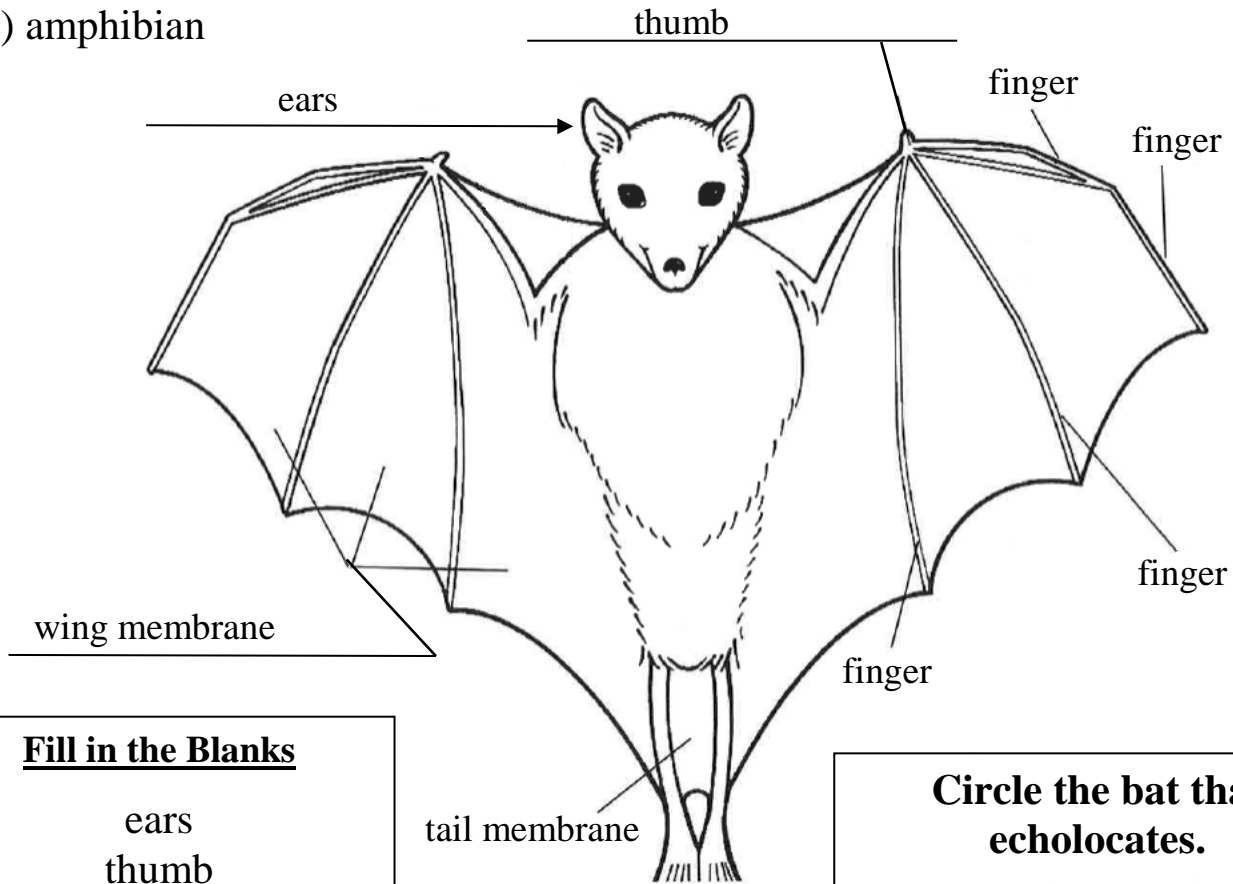
Name: \_\_\_\_\_

# Bats-A-Billion – Answer Key

Bats are what kind of animal?

- (A) bird
- (B) mammal
- (C) reptile
- (D) amphibian

Bats are different from other mammals because they are able to fly.



**Fill in the Blanks**

ears  
thumb  
wing membrane

**Circle the bat that echolocates.**

The top illustration shows a bat with small, rounded ears. The bottom illustration shows a bat with large, prominent, upright ears, which is circled in black to indicate it is the correct answer for echolocation.

Bats are blind. (Circle your guess)

True False

Most bats in Texas eat \_\_\_\_\_.

- (A) fruit
- (B) fish
- (C) blood
- (D) insects

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# WHERE'S MY BABY?

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**Objective:** To learn how mother free-tailed bats find their babies

**Grades:** 2-4

**Type of Activity:** *Game*

**Materials:**

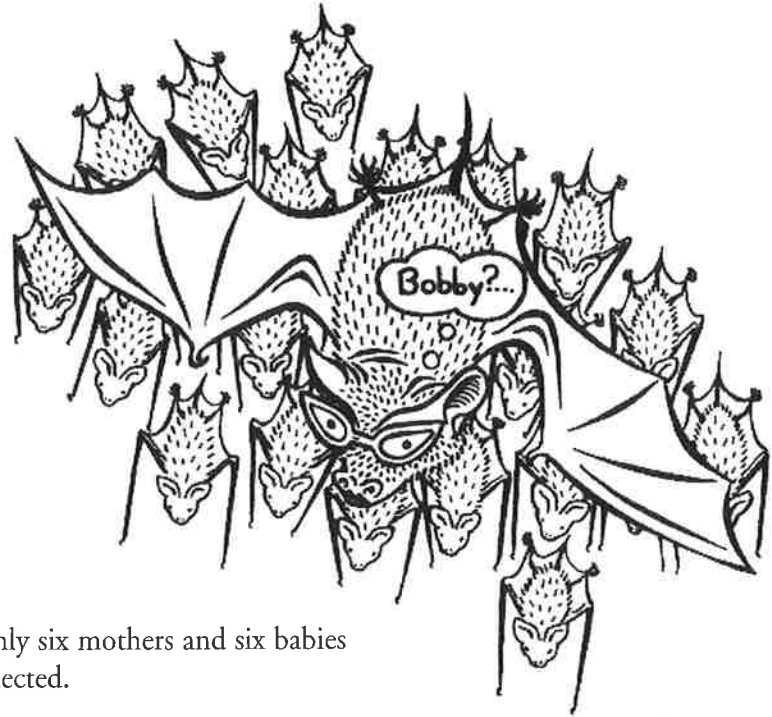
- Cotton balls
- Variety of scents from the list
- Blindfolds

**Background Information**

In the southwestern United States, Mexican free-tailed bats roost together in large numbers. A cave in Central Texas is home to 20 million free-tails. Most of these are females and in early June each produces a single young, approximately doubling the size of the colony. Hundreds of square feet of cave wall space are carpeted with bat pups. Born without fur, the babies pack tightly together in densities of up to 500 per square foot to share body heat and stay warm. Mothers usually roost together in another part of the cave, each returning to nurse her baby several times a day.

For many years scientists believed that mothers probably fed any youngster they found. Recently, a study demonstrated that each mother actually locates her own baby through recognition of its scent and call. This is amazing considering the fact that they must find their own amidst millions of other active mothers and babies.

This game enables children to play the roles of mothers and babies trying to find each other in a dark, noisy situation. The whole class participates,



but only six mothers and six babies are selected.

**List of Suggested Scents**

Vinegar	Vanilla
Cinnamon	Perfume
Garlic	Banana

**Rules**

1. Select six mothers and six babies.
2. Each baby is given a cotton ball with a scent (see scent list for suggestions). The mother needs to become acquainted with the smell.
3. The baby is then assigned a call, some simple pattern of a tongue-clicking. Mother and baby should practice several times to ensure recognition of scent and sound.
4. Mothers are then blindfolded.
5. The other students in the class are also babies, but without a scent or assigned call. All babies are arranged in an open space, and the teacher

places the six special babies throughout the group. All babies are stationary and must not move. Only the mothers will move.

6. The blindfolded mothers are assisted to the edge of the group. Now they must find their own baby. All babies call, clicking at random without a pattern, except for the six babies who must use the pattern they practiced with the six mothers. Babies are hungry, so they should click loudly.

7. If a mother bumps into a designated "baby," the baby is required to place the cotton ball near the nose of the mother, otherwise no contact is made.

8. The winner is the mother and baby who find each other first. When pairs find each other, they should leave the circle. The game is over when all mothers and babies are reunited. 🦇



# Facts on the Fly!

## THINGS YOU CAN DO TO PROMOTE BAT CONSERVATION

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You don't need to travel far or have a degree in biology to help bats. You can make a difference for bat conservation by working on local projects. Every community has unique needs. These suggestions may apply to the bats where you live.

Much more information and downloadable publications are available at BCI's website: [www.batcon.org](http://www.batcon.org).

### Things EVERYONE can do for bats:

*After centuries of myths and misunderstandings, bats have acquired a poor public image. You can help counter these myths by raising public awareness about bats in your community. Because bats are mammals, they are susceptible to the rabies virus, making sick individuals a possible risk to people who know little about them. Due to fears that are often greatly exaggerated, many bats are needlessly killed. You can help save bats from misguided persecution by:*

- **Joining** Bat Conservation International and obtaining the most up-to-date information about bats and bat conservation. To join, visit [www.batcon.org](http://www.batcon.org).
- **Giving** bat lectures to local schools, nature centers, zoos, museums or libraries. Presentations and videos are available through BCI's catalog.
- **Donating** books and other educational materials about bats to local libraries, resource centers or schools.
- **Writing** a positive article about bats for your local newspaper (especially for Halloween).
- **Helping** people safely remove stray bats from living quarters. This can be done easily by covering the bat with a coffee can when it lands and slipping a piece of cardboard between the wall and the can. Then the bat can be released outside. Do not attempt to handle bats without gloves, as they may bite in self-defense.
- **Answering** questions or directing people to BCI during public health scares.
- **Educating** local pest-control operators about humane exclusion techniques. Exclusion is the only effective way to remove a nuisance colony of bats from a building. Poisons, naphthalene flakes and harmless repellent devices do not deter bats and may actually harm humans.
- **Providing** facts about bats and rabies to local health

departments, veterinarians and personal physicians. To obtain detailed information about bats and public health issues, visit [www.batcon.org](http://www.batcon.org).

- **Installing** a bat house as part of an exclusion project or just to bring bats into your backyard. BCI's website provides designs and detailed instructions for building and installing bat houses. You can also order a ready-made bat house, the *Bat House Builder's Handbook* or the *Building Homes for Bats* DVD from BCI's online catalog.
- **Learning** more about the bats in your state by visiting the 'Species Profiles' section of [www.batcon.org](http://www.batcon.org).
- **Volunteering** to advocate for bats in your community.

### Things TEACHERS and STUDENTS can do for bats:

*Bats rank among the world's most diverse and fascinating mammals, yet few people know anything about them. People must first understand bats before they can really care about their survival. You can increase bat awareness by:*

- **Teaching** a unit on bats. Exciting curricula aids are available through BCI.
- **Learning** more about the bats in your state by visiting the 'Species Profiles' section of [www.batcon.org](http://www.batcon.org).
- **Researching** specific bat-related topics. Archived issues of BATS magazine issues can be found at [www.batcon.org](http://www.batcon.org).
- **Organizing** a bat-appreciation day at your school and educating other students about the importance of bats.
- **Promoting** the "Look, but do NOT touch" approach of respecting wild animals.
- **Adopt-A-Bat** for the classroom. Students can take part in conservation efforts, learn about a bat species of their choice and receive a certificate and photo of the bat.

### **Things LANDOWNERS can do for bats:**

*Bats are losing their natural habitats around the world because of increasing land development, agriculture and deforestation. In many cases, bats can adapt to such changes if their needs for water, insect prey and roosts are taken into consideration. To mitigate the loss of natural roosts, many people also now provide bats with alternative roosts, such as bat houses. All this and more is available online at [www.batcon.org](http://www.batcon.org). You can help by:*

- **Planting** or preserving native vegetation that attracts and supports a diversity of non-pest insects for bats to feed on.
- **Decreasing** disturbance and destruction of cave and abandoned-mine roosts via education, fencing or gating.
- **Protecting** roosting bats in abandoned buildings or providing artificial alternatives when such buildings must be torn down. BCI can provide suggestions for construction of artificial roosts.
- **Leaving** snags in forests and woodlands to serve as natural homes for wildlife. Bats often roost in tree hollows, under loose bark and in old snags, which are frequently removed.
- **Supplying** open water resources where bats can drink on the wing. Even a pool just ten feet by five feet can be a big help to bats in need of a drink if the approaches are not obstructed by vegetation.
- **Constructing** and **installing** a bat house. BCI's website provides designs and detailed instructions for building and installing bat houses. You can also order a ready-made bat house, the *Bat House Builder's Handbook* or the *Building Homes for Bats* DVD from our online catalog.
- **Modifying** a bridge to serve as a home for bats by working with your local highway department.

### **Join Bat Conservation International – Our members and donors make our conservation successes possible.**

*Bat Conservation International is a nonprofit organization dedicated to conservation, education and research initiatives involving bats and the ecosystems they serve. For more information visit: [www.batcon.org](http://www.batcon.org)*

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