



**STELLALUNA**  
by  
**Janell Cannon**

Stellaluna is a baby fruit bat who needs to learn how to fly so that she can follow the "heavy scent of ripe fruit" as her mother does. She belongs to the Megachiroptera, or the large hand-wing bats; their wingspans can be up to six feet. They are called flying foxes because they have bodies covered with fur, pointed ears, long muzzles, and big eyes.

Fruit bats use their great "night vision" and excellent sense of smell to navigate at night in search of food. They live in tropical areas and are directly responsible for pollination of night-blooming plants and regeneration of rain forests.

Stellaluna learns to adapt to her "place" in the nest with the baby birds: she learns that she can't sleep hanging upside down! She thinks that the bugs have an awful taste, so she is ecstatic when her mother finds her and she is able to eat fruit again. Her ability to find food through her sense of smell is necessary for survival.

Does our sense of smell help us in other ways? Could it help us remember better? Try this activity to find out; then compare your results and your students' results to a nationwide survey.

**MATERIALS:** Peppermint and Butterscotch candy, paper, pencil. **ACTIVITY:** See attached sheet.

**SOURCE:** Teacher's edition of Scholastic, Inc. *SuperScience Blue*, May 1994.

**TEACHER NOTES:** Brian Lies has written and illustrated a book called Bats at the Beach; a portion of the proceeds of the book is being donated to Bat Conservation International. In whimsical style, your students learn about bat habitats, food supplies, and "nightly routines". There is a great close-up drawing of how bats carry their young. The text is shorter for younger children.

**STANDARDS:**

**BSL:** 1.1, 1.3, 1.5, 1.6, 5.2, 5.4, 6.1, 12.3

**NCTM:** 4d, 6c, 6d

**SCS:** A1, A2, C1, C3, H2

Cannon, Janell. Stellaluna. Harcourt Brace and Company, New York, 1993. ISBN#0-15-280217-7.

Lies, Brian. Bats at the Beach. Houghton Mifflin Company, Boston, 2006. ISBN-13: 978-0-618-55744-8.

**BACKGROUND:** Studies have shown that smell may boost short-term memory. The same smell must be present while the material is being learned, and while being recalled. We designed this exercise to test this, and to see if there's a difference between peppermint and butterscotch smells.

**Preparation:** If your last name begins with A-L, buy a bag of peppermint hard candy. If your last name begins with M-Z, buy a bag of butterscotch hard candy.

**Testing:** Begin testing by passing out a piece of candy to each student in your class. Ask half of the students to loosen the wrapper slightly so they can smell it. These students should hold the candy near their noses and smell it while you read List 1. Read slowly, silently counting to three after each word. Encourage students to concentrate on the words, but explain that they may not write the words down or repeat them aloud. (Remind students that they are not being graded on their memory.)

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|--------|--------|
| List 1 | List 2 |
| cat    | rat    |
| pan    | fan    |
| car    | tar    |
| fly    | bit    |
| lip    | rip    |
| ton    | pie    |
| mop    | top    |
| fin    | ear    |

After you read the list, have students put the candy down. Have the whole class count backward by twos from 50. (Note: This is just a distraction.) Then, have all students loosen the wrappers and sniff the candy while they write *down as many of the words as* they can recall.

After one minute, have students trade papers. Reread the words and have students count up the number of words correctly remembered. (Spelling doesn't count!) Ask students to record their own results on their paper. Repeat with List 2 no sooner than an hour later. This time, the other half of the class smells candy as you read the list. Send the results to us. We'll print them in our October 1994 issue on memory.

-Ester Weiner

