

Grade Levels(s): K , 1st , 2nd , 3rd , 4th , 5th , 6th , 7th ,
8th , 9th , 10th , 11th , 12th
Subject(s): ELA, Science

Wonder of the Day #1184
Why Do Bats Sleep Upside Down?

Laura McShane

Bats and Birds 35 min

Objective:

Recognize the beneficial role of bats in our world. Celebrate [#BatWeek](#) (Oct 24-31)
<http://batweek.org/>

Big Idea:

Bats are the only mammals that can fly!

1. Warm Up / Anticipatory 15 min

Watch [Bat Flight Vs. BIRDS](#) by Destin Sandlin:

Read along to Overdrive Ebook [Bats by Kari Schuetz](#)

or Hoopla Book [Bats by Cindy Rodriguez](#)

See also: <https://wonderopolis.org/wonder/are-bats-birds>

See bat ppt presentation:

<http://www.batweek.org/index.php/bat-week-tool-kit...>

Resources

- <http://wg.wonderopolis.org/uploads/users/1209/362/bat.jpg>
- <http://wg.wonderopolis.org/uploads/users/1209/362/bats.JPG>

2. Investigation and New Learning 10 min

Distribute [books about bats](#) to small groups - have each group look through the books.

Description:

Books to hand out for bat program - encourage kids to share one interesting fact found in their book!

Fly Guy presents: bats

by Tedd Arnold

Notes: Almost all bats are nocturnal, which means they are active at night. A group of bats is a colony. Some bat colonies have more than 20 million bats! Bats live on every continent except Antarctica.

Bat watching

by Diane Bair; Pamela Wright

Bat count : a citizen science story

by Anna Forrester; Susan Detwiler

Notes: There are 40-50 different species of bats in the United States. Before the white-nose syndrome, the little brown bat was the most common US species. Humans can help save bats by observing and protecting bats.

Little red bat

by Carole Gerber; Christina Wald

Notes: Red bats are one of the most common bats in North America. Red bats are solitary forest creatures - except while raising young - most live alone.

Bats

by Gail Gibbons

Notes: Read along here Bats have been around for a long time- 50 million years. Bat wings are unique - with finger bones making up the wing covered by membrane.

Bats in the dark

by Doreen Gonzales

Notes: Scientists put bats into two groups - megabats and microbats. Microbats use their hearing and echolocation to find food in the dark. Most microbats are insectivores. Bats can eat as many as 1000 insects per hour!

Bats! : amazing and mysterious creatures of the night

by Marianne Haffner; Hans Peter Stutz

Notes:Gives a good account of stages of bat life from birth.

What is a bat?

by Bobbie Kalman; Heather Levigne

Notes:Covers types of bats, bat foods, differences bird wing versus bat wing, bat hearing, sense of smell, roosting habits, echolocation.

Bulldog bats

by Emily Raabe

Notes:Bulldog bats eat fish! There are more bats than there are dogs or humans. One out of every four mammals is a bat! (pg.4) Bulldog bats live near water in southern Mexico, Central America and in South America as far as Argentina.

Plain-nosed bats

by Emily Raabe

Notes:Plain-nosed bats are the most common bats in Europe and North America. The smallest bat in the world is the bumblebee bat of Thailand. Plain-nosed bats can live up to 30 years!

A place for bats

by Melissa Stewart; Higgins Bond

Notes:People can help protect bats by protecting their habitat, putting up special fences to keep people out of caves bats use for colony nesting and keeping their pets like cats indoors. Bats have lived on Earth for more than 50 million years.

3. Review & Check for Understanding 30 min

Group should agree on one new fact learned about bats to share with the class.

Bat words:

- BAT
- INSECT
- HANG

- CAVE
- COLONIES
- DOWN
- PREDATOR
- POLLINATOR
- SNOOZE
- CLENCH
- MUSCLE
- TENDON
- TALON
- NOCTURNAL
- ECHO-LOCATION
- ROOST
- PERCH
- ADAPTATION

Additional References:

<https://www.ohiohistory.org/learn/collections/natu...>

<http://www.batcon.org/>

<https://batconservation.org/>

<http://www.marianydesigns.com/animals/bats.html>

<http://flybynightinc.org/>

Craft activity - bat puppet

<http://wg.wonderopolis.org/lessons/bats-versus-bir...>

Resources

- Bat facts <http://www.marianydesigns.com/animals/bats.html>

Note: Younger kids can craft a bat puppet-older kids can commit to help save bats by raising awareness of bat needs.

Standards: 0.2.4.4. 0.2.8.8. 0.2.2.2. 0.2.1.1. K.4 (B) 0.2.10.10. 0.3.0.4. RI.K.1. RI.K.2. 0.10.6.6. 0.8.2.2. 0.6.1.1. (K.9) K.10 (A) 1.1. 2.1. 2.1. 3.1. 3.2. K.3 (C) K.2 (D) 110.11 (C) 110.11 (B) 110.11 (D) 110.11 (F) K.2 (B) RI.K.4. RI.K.8. K.RF.1.1. K.RN.1.1. K.1.A) K.1.B) K.1.H) K.RN.2.1. K.RN.2.2. K.RV.3.2. K.SL.3.1. K.RV.1.1. K.RN.4.1. K.RN.3.2. K.1.J) K.1.K) L.K.6. [3] SA1.1. SL.K.2. RF.K.4. RI.K.10. [3] SA1.2. [3] SA2.1. SC2. SE2. SA1. [3] SC4.1. [3] SC2.1. 5.1. (K.15) LA 0.1.6.F. LA 0.1.6.D. LA 0.1.5.C. LA 0.1.5.B. K-2-ETS1-1. LA 0.1.6.I. RI.K.1 2.1.1.B. LA 0.1.6.O. LA 0.1.6.M. K.RL.P.4.1. K.RI.P.4.1. K.S.1A.6. K.S.1A.8. K.L.2A.1. K.L.2A.3. K.S.1A.5. K.S.1A.4. K.RI.MC.6.1. K.RI.LCS.11.2. K.S.1A.1. K.S.1A.3. 2.1.1.D. LA 0.1.6.E. RI.K.8 RI.K.4 RI.K.2 2.1.1.E. RF.K.4 RI.K.10 2.1.1.F. L.K.6 SL.K.2 W.K.1 1.RN.1.1. 1.RN.2.1. 1.RI.LCS.9.1. 1.1.I) 1.RN.2.2. 1.S.1A.1. 1.RI.LCS.11.2. 1.W.5.1B. 1.1.B) 1.SL.3.1. 1.RI.LCS.8.1. 1.W.4.1A. 1.RV.3.2. 1.RV.1.1. 1.RV.2.1. 1.RN.4.1. 1.8.B) 1.S.1A.8. 1.S.1A.6. 1.RF.2.2. 1.RF.2.1. 1.RI.MC.6.1. 1.RF.1.1. 1.S.1A.5. 1.S.1A.4. 1.8.E) 1.10.F) 1.8.D) 1.8.C) 1.S.1A.3. 1.1.A) 1.10.G) 1.5.B) 1.14 (B) 1.19 (C) 1.24 (A) 110.12 (C) 1.14 (A) 1.6 (C) LA 1.1.6.D. LA 1.1.6.E. 1.4 (B) LA 1.1.6.I. LA 1.1.6.M. 110.12 (F) 1.2 (B) 1.10 (A) 110.12 (D) 2.1.1.E. LA 1.1.6.O. 2.1.1.B. 2.1.1.D. LA 1.1.5.C. LA 1.1.5.B. 1.10.4.4.A. 1.8.7.7.B. 1.8.7.7.A. 1.1.1.1.2. 1.4.1.1.1. 1.1.J) 2.1.1.F. 1.5.C) 1.8.2.2. 1.3.0.4.A. 1.2.2.2. 1.2.1.1. 1.LS.2. 1.2.4.4. 1.2.6.6. 1.2.10.10. 1.2.8.8. 1.2.7.7. 1.1.2.1. 1.2 (D) RF.1.4.A. RI.1.10. RI.1.7. RF.1.4.C. SL.1.2. [3] SA1.1. L.1.4.A. RI.1.6. RI.1.4. [3] SC4.1. SA1. SC2. [3] SC2.1. RL.1.5. RI.1.2. RI.1.1. [3] SA1.2. [3] SA2.1. L.1.4A SL.1.2 RF.1.4C 2.1. 1.1. 3.1. 3.3. RF.1.4A RI.1.10 RI.1.2 1-LS1-1. K-2-ETS1-1. RI.1.4 RI.1.6 RI.1.8 RI.1.7 SE2. RI.1.1 12.1.1.G. 12.1.2.A. 12.1.3.H. 12.3.4.A. 12.1.1.F. 110.48.3 (A) 110.48.6 (A) 110.48.5 (A) 110.48.4 (F) 110.48.4 (E) HS-ETS1-2. EIV.1 (A) 9-11.2 (F) B.1.1. B.6.1. 10-12.6 (A) 9-11.2 (G) 9-11.10 (C) 9-11.12 (F) 9-11.12 (A) 9-11.11 (B) 110.48.6 (C) 110.49.2 (B) WHST.9-10.4. 110.55.3 (B) 9-10.RN.1.1. 110.55.3 (A) WHST.9-10.2.D. RST.9-10.5. SA1. SC2. SE2. RST.9-10.4. 110.55.2 (C) LA 10.1.6.F. LA 10.4.1.A. 110.54.5 (B) 110.54.5 (A) 110.54.3 (A) LA 10.1.6.O. LA 10.1.6.N. LA 10.1.6.H. LA 10.1.6.I. LA 10.1.6.M. 110.55.5 (B) 110.55.5 (A) EIV.9 (D) EIV.13 (B) EIV.15 (C) (V) 110.34 (A) (EIV.8) EIV.1 (B) 110.47.8 (D) 110.47.8 (B) 110.47.8 (A) 110.55.4 (A) 110.34 (B) 110.46.1 (A) 110.47.5 (C) 110.47.5 (D) 110.47.6 (A) 110.47.6 (C) 110.47.5 (B) 110.47.4 (C) 110.47.1 (A) 110.47.2 (A) 110.47.3 (D) 110.47.9 (E) 110.48.1 (A) B.3.2. 9-10.W.1.1. 9-10.RV.2.2. 9-10.RV.2.1. ENV.1.3. 110.48.2 (F) 110.55.4 (D) 110.55.4 (C) 110.55.4 (B) 9-10.RV.1.1. 9-10.RN.2.2. L.9-10.4D [10] SC3.2. L.9-10.6 110.48.2 (A) L.9-10.4A RI.9-10.4 9-10.RN.2.1. RI.9-10.1 RI.9-10.2 110.47.7 (A) E1.I.4.1. E4.RI.P.4.1. E4.I.4.1. E4.RI.P.4.3. E4.RI.MC.5.1. E4.RI.MC.5.2. E3.RI.LCS.11.2. E3.RI.LCS.9.5. E3.RI.LCS.9.1. E3.RI.LCS.8.1. E3.RI.LCS.9.2. E3.RI.LCS.9.3. E3.RI.LCS.9.4. E4.RI.MC.6.1. E4.RI.LCS.8.1. H.B.1A.6. H.B.1A.4. H.B.1A.8. H.B.6A.1. RST.9-10.4. H.B.1A.3. E4.RI.LCS.11.2. E4.RI.LCS.9.2. E4.RI.LCS.9.1. E4.RI.LCS.9.3. E4.RI.LCS.9.4. E4.RI.LCS.9.5. E3.RI.MC.6.1. E3.RI.MC.5.2. E1.RI.LCS.9.4. E1.RI.LCS.9.3. E1.RI.LCS.9.5. E2.I.4.1. E2.RI.P.4.1. E1.RI.LCS.9.2. E1.RI.LCS.9.1. E1.RI.P.4.3. E1.RI.P.4.1. E1.RI.MC.5.1. E1.RI.MC.5.2. E1.RI.MC.6.1. E2.RI.P.4.3. E2.RI.MC.5.1. E3.I.4.1. E2.RI.LCS.9.5. E3.RI.P.4.1. E3.RI.P.4.3. E3.RI.MC.5.1. E2.RI.LCS.9.4. E2.RI.LCS.9.3. E2.RI.MC.6.1. E2.RI.MC.5.2. E2.RI.LCS.8.1. E2.RI.LCS.9.1. E2.RI.LCS.9.2. RST.9-10.5. WHST.9-10.2(D) BIO.1.L) 9.5.1.1. BIO.1.A) 10.5.H) 10.5.F) 9.5.2.2. 9.5.4.4. 9.11.6.6. 9.1.1.1.2. 9.11.4.4.D. 9.11.4.4.A. 9.9.7.7.B. 10.3.F) LA 10.1.4.A. L.9-10.4.A. RI.9-10.4. L.9-10.4.D. L.9-10.6. [10] SA1.1. RI.9-10.2. RI.9-10.1. LA 10.1.5.C. LA 10.1.5.D. LA 10.1.6.E. 110.55.3 (C) [10] SA1.2. 9.1.3.1.3. 110.32 (A) 110.32 (B) EII.13 (B) EII.9 (B) (EII.8) EIII.1 (A) EIII.1 (B) 110.33 (B) WHST.9-10.4. 110.33 (A) EIII.15 (C) (V) EIII.9 (B) 9.13.4.4. EII.1 (A) BIO.6.A) 9.14.4.4. 9.14.2.2.D. 9.13.5.5. BIO.8.A) EI.1 (A) 110.31 (B) 110.31 (A)