



Prize Winner

**Science Writing
Year 3-4**

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Brilliant ~~Blind as a Bat~~

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Wow! Batboy that was amazing! But how do you know where all the bad guys are?

Hmmm...I don't actually know. Let's go ask some of my friends.



A superhero character with brown hair, wearing a black suit with a yellow cape and a yellow circular emblem on his chest, stands on the left. He has his right hand raised in a wave. In the center, a black bat-like creature with large wings and glowing yellow eyes is flying. On the right, another similar creature is peeking out from a hole in a large tree trunk. The background is dark with some architectural elements.

Hello, Bob and Ben, I'm trying to figure out how I know where bad guys are even in the dark? Could you help me please?

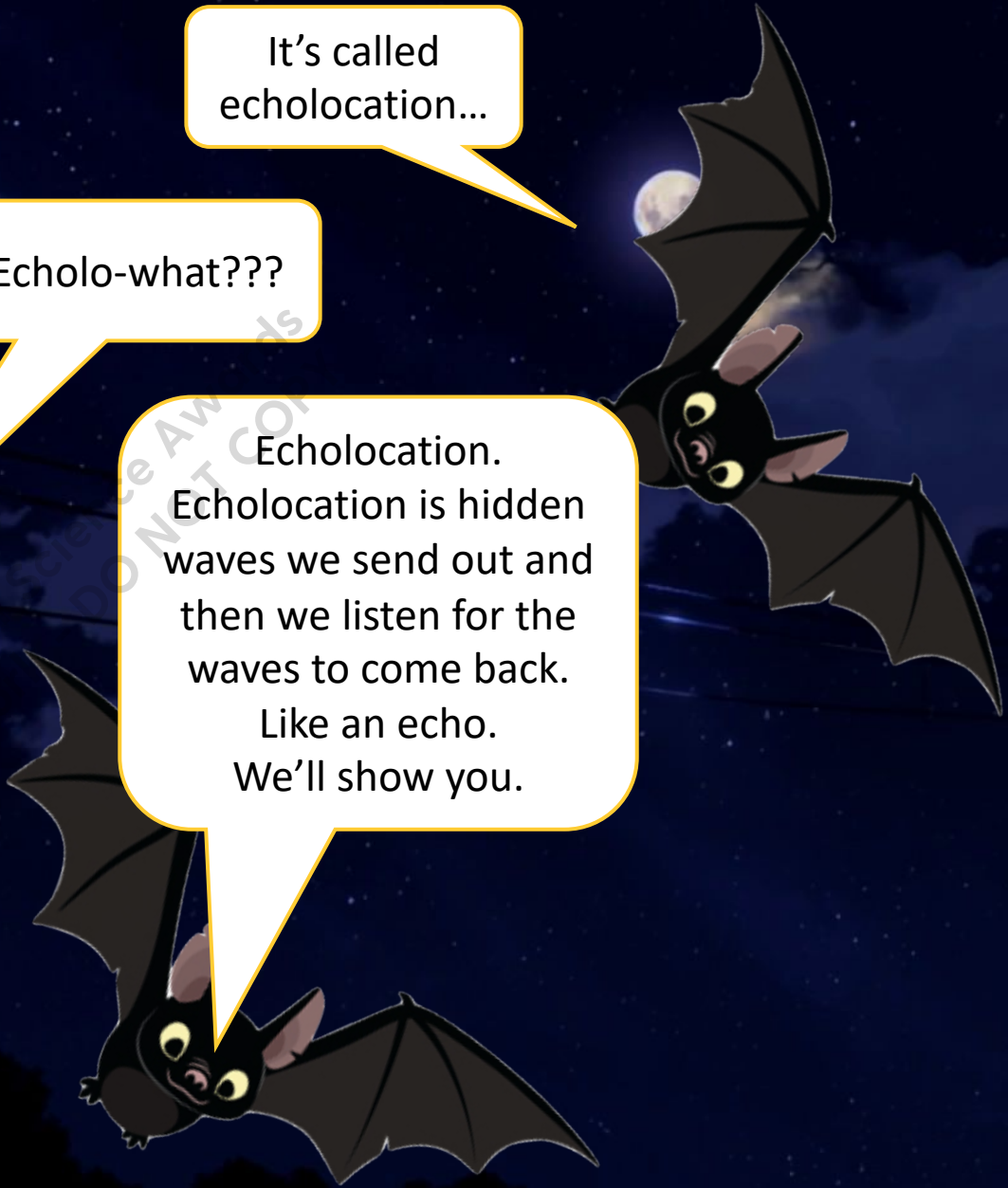
Well, you have come to the right bats! Follow us, we'll show you.



Echolo-what???


It's called echolocation...

Echolocation.
Echolocation is hidden waves we send out and then we listen for the waves to come back.
Like an echo.
We'll show you.



Ben is using echolocation to find food even though he can't see it. Humans can't hear the hidden soundwaves. Ben is sending many waves and then listening for the echo with his big ears. He even knows if the food is moving away or towards him. If it's moving away, it will have a lower pitch but if it's moving towards him, it will have a higher pitch. Ben even knows what insect it is and creates a picture of it in his mind. Scientists got the idea of sonar in submarines from us bats.

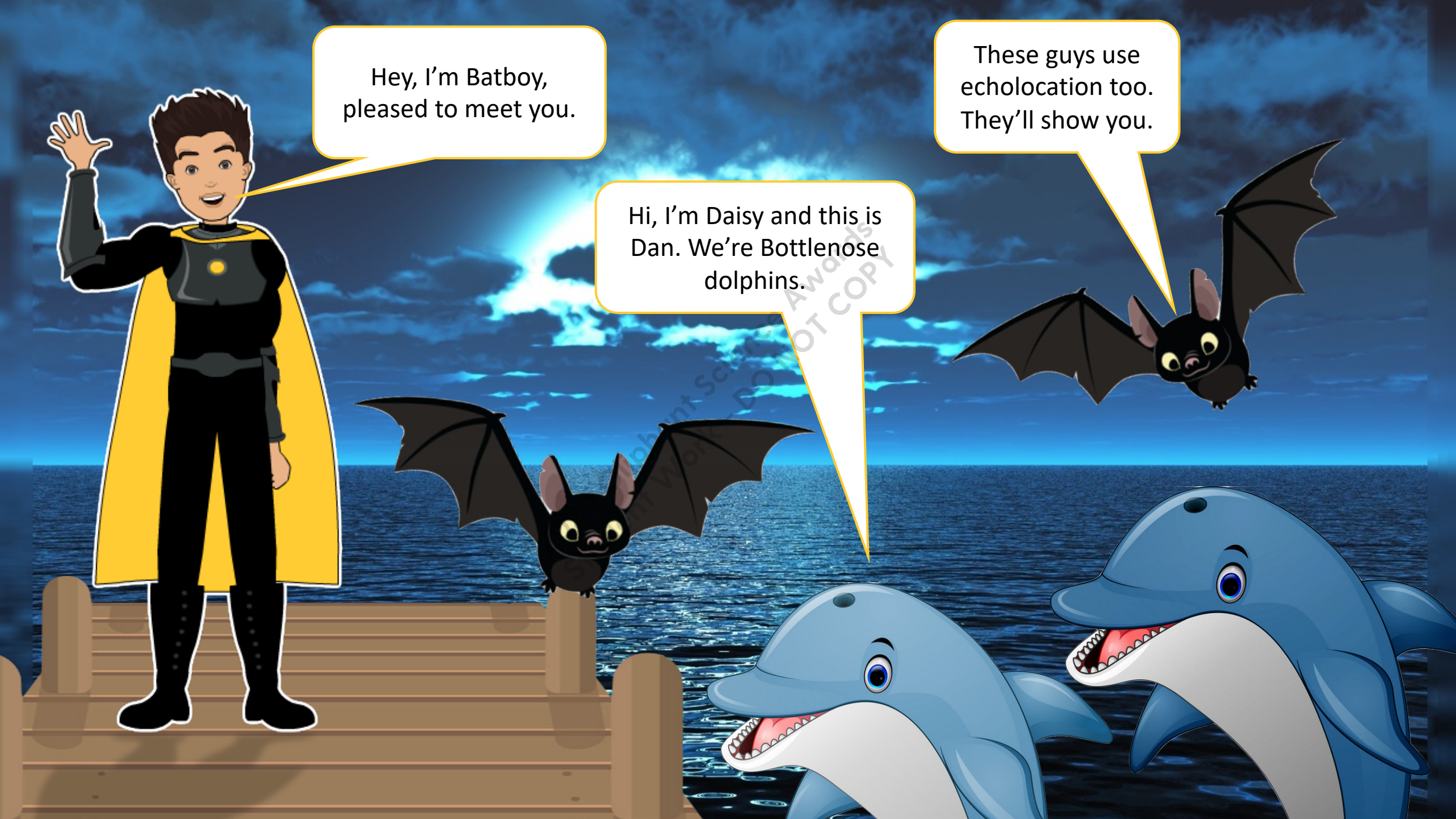




No, many species like birds and some sea animals use echolocation.

So, it just you guys and me that use this?

Why don't we show you how other animals use it.



Hey, I'm Batboy,
pleased to meet you.

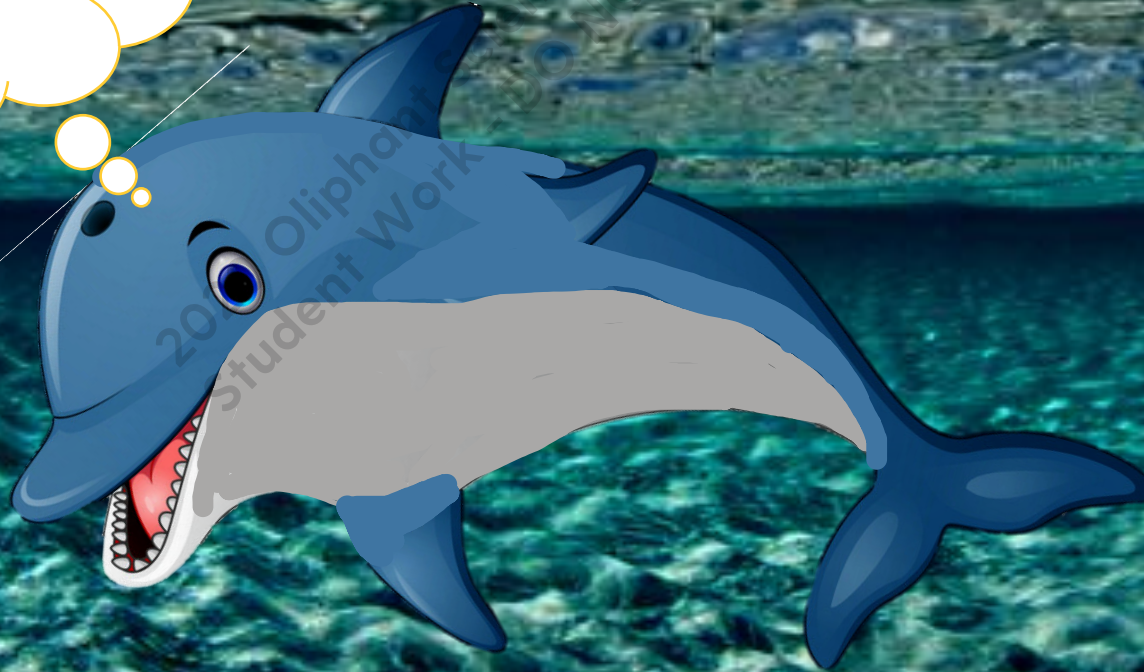
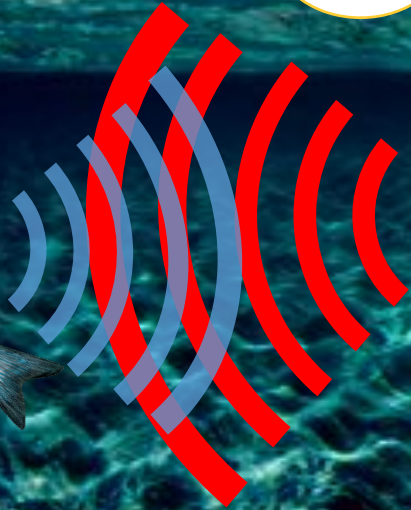
Hi, I'm Daisy and this is
Dan. We're Bottlenose
dolphins.


These guys use
echolocation too.
They'll show you.



Wow, just like the bats! How does it work?

The swollen top of our head is called the melon. Just behind the melon are our nasal air sacs which make the sounds and the melon changes the pitch to detect food. When an echo comes back, the melon works out what animal it is and where it is.






Wow, that's really cool!
So are there any other
differences between bat
echolocation and
dolphin echolocation?

Yeah Lots! We can't
echolocate in air and
bats can't echolocate in
water.

Yeah! And our
echolocation is more
accurate but dolphins
is quicker.

Each of our
echolocation is
perfect for what we
need it for.



Thanks Dan and Daisy.
You too Ben and Bob.
You have amazing skills!

You're welcome.
Good luck with your
investigation.

Being able to
echolocate is
awesome!!!



WOW, that's very interesting! Now we know how you find the bad guys. Your friends in the animal kingdom are very amazing to!

It's amazing how much humans have learnt from studying the animal and plant kingdoms. We probably have a whole lot more to learn!



Bibliography



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Acknowledgement of help

- I knew how to do PowerPoints but my brother showed me how to insert comic characters. Once he showed me once, I could then do it myself.
- My mum taught me how to reference.

Word count: 625