

ELINOR WONDERS WHY

EW160: ECHO LOCATION

Written by
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Question: How does Ari know where things are when he's blindfolded?

Logline: The kids learn about echo-location

Curriculum Goals: **LS2**. Understand that animals have different body parts that are used in different ways to meet their needs.

- a. Identify body parts of animals and their function
- c. Compare how the external body parts of animals and plants are the same and/or different
- d. Explore how different external features of an animal help it survive in its environment. (Elinor and Olive learn that Ari's ability to make high-pitched sounds and his sensitive ears give him a special skill - echolocation).

SEP1. Asking questions (science) and defining problems (engineering)

- a. Demonstrate curiosity about the greater world outside of their local environment
- b. Ask more complex questions about observable phenomena
- c. Ask and/or identify cause and effect questions that can be answered by an investigation (Ari, Elinor and Olive wonder about how their voices are bouncing back near a cliff face. so they do an investigation that leads them to the idea of echoes).

SEP3. Planning and carrying out investigations

- b. Compare and contrast objects and events by describing similarities and differences in detail
- c. Demonstrate an ability to make and test predictions based on background knowledge and experiences. (Elinor and her friend contrast the echoes they all can hear with Ari's echolocation abilities).

SEP6. Constructing explanations (science) and Designing Solutions (engineering)

- a. Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena (science)
- b. Look for and describe patterns and relationships in natural phenomena (science) (Elinor, Ari and Olive use their knowledge they've gained experimenting with echoes to understand Ari's echolocation)

FIRST DRAFT: January 13, 2020
SECOND DRAFT: January 29, 2020

1. **EXT CAMPSITE -- DAY**

1.

It's a sunny afternoon in the forest, and ARI, ELINOR and OLIVE are on a camping trip with Ari's family. We open as Elinor and Olive are finishing setting up their tents at a campsite (we can reuse the ones from the Light The Way episode).

1 ELINOR 1
 There. All done.

2 OLIVE 2
 Me too. How's your tent going, Ari?

We pan over to Ari as he puts on the finishing touches on his tent.

3 ARI 3
 All set! I think I'm finally
 getting the hang of camping.

At that moment, we hear a bit of chaotic noise. Next to Ari, we see MR. BAT having some trouble setting up the family tent from inside <SFX: OOF/URK/HMM>.

4 ARI (O.S.) (CONT'D) 4
 Uh, Dad, do you need help?

Mr. Bat's head emerges from the tent, which is a jumbled mess.

5 MR. BAT 5
 Thanks, Ari. That would be great. I
 haven't quite figured this out yet.

The tent collapses around him. MIRI (Ari's baby sister), in MRS. BAT's arms, <SFX: GIGGLES>. The kids go over and hold down the corners of the tent while Mr. Bat continues to try to prop up the poles.

6 MR. BAT (CONT'D) 6
 Thanks, kids. You know, at home us
 bats usually sleep hanging from the
 ceiling...

We see a THOUGHT BUBBLE of Mr. and Mrs. Bat sleeping upside down at their house.

7 MR. BAT (CONT'D) 7
 ... so setting up tents and
 sleeping on the ground is all very
 new to us.

8 ELINOR 8
That's what makes camping an
adventure!

9 MR. BAT 9
You're exactly right, Elinor.
Camping is all about being out in
Nature and doing things
differently.

10 ARI 10
And, let's not forget, having tasty
camping snacks!

11 OLIVE 11
(giggles)
Ari liking snacks is not very
different.

They all <SFX: LAUGH>.

12 ELINOR 12
My favorite part of camping is to
go exploring in a new place, so I
can see and hear new things.

13 MR. BAT 13
Well, we'll go for a nice walk
soon, just as soon as I (struggling
with tent pole) finish.. setting...
up... this... tent!

The tent collapses again. Miri <SFX: GIGGLES> again.

14 MR. BAT (CONT'D) 14
(poking his head out)
I think we know what Miri's
favorite part of camping is.

Miri continues to <SFX: GIGGLE> and the kids join in.

15 MRS. BAT 15
(setting Miri down and
rolling up her sleeves)
Oh dear. Why don't you kids go
play? I'll help Mr. Bat.

The kids look at each other smiling and run off.

16 ARI 16
Thanks, Mom!

2. **EXT. FIELD -- DAY**

2.

The kids walk a few feet away to a field (within eyesight of the camp) as they talk about what to do.

17 OLIVE 17
What should we do?

18 ELINOR 18
I just learned a really fun game,
want to play it?

19 OLIVE 19
Sure, how do you play?

20 ELINOR 20
It's called "Marco Polo." It's kind
of like tag, but you play with your
eyes closed.

21 ARI 21
With your eyes closed?

Elinor pulls out a blindfold she brought along.

22 ELINOR 22
Yeah, here's how it works. If
you're "it" you wear this
blindfold.

23 ARI 23
So you can't see.

24 OLIVE 24
Wait... if you can't see, how do
you tag anyone else?

Olive pantomimes randomly tagging the air.

25 ELINOR 25
That's the fun part. If I'm "it"
and I say "marco", then everyone
else has to say "polo."

26 ARI 26
Oh, I get it. So when you HEAR them
say "polo", you can tell where they
are, without SEEING them.

27 OLIVE 27
Sounds fun. Can I be "It" first?

Elinor puts the blindfold on Olive. From Olive's POV, we see the blindfold go over her eyes.

Everything is dark for a moment. Back to the outside view,
Olive is waving her arms around.

28 OLIVE (CONT'D) 28
Wow, I can't see anything!

Ari does a silly dance.

29 ARI 29
Did you see that?

30 OLIVE 30
Nope.

He does a sillier dance.

31 ARI 31
How about that?

32 OLIVE 32
I got nothing.

33 ARI 33
Wow, that's a good blindfold.

34 ELINOR 34
Ok, but can you HEAR us?

Olive points to Elinor.

35 OLIVE 35
Yes! I can HEAR that you are right
there.

Ari is flying off to the side.

36 ARI 36
Ooh! Can you hear me?

Olive perks her ears up and points to Ari with her trunk.

37 OLIVE 37
Yes! You're way up there! Hey, no
flying!

Ari lands. They all <SFX: GIGGLE>.

38 ARI 38
Cool, I like this game.

39 ELINOR 39
Let's play!

Elinor and Ari walk to new places.

40 OLIVE 40
Ok, here I come!

Olive takes a few tentative steps, and walks around with her hands (and trunk) in front of her.

41 OLIVE (CONT'D) 41
Marco!

42 ELINOR/ARI 42
Polo!

Olive moves in the direction of Ari, who scrambles out of the way. Ari and Elinor <SFX: GIGGLE>.

43 OLIVE 43
Marco!

44 ELINOR/ARI 44
Polo!

Olive moves towards Elinor, who dodges, and Olive grabs a bush instead.

45 OLIVE 45
Got you! (lifting the blindfold)
Oops, you're a bush, not my friend
Elinor!

They all <SFX: LAUGH>.

46 OLIVE (CONT'D) 46
Wow, that's hard!

47 ARI 47
Oooh, I want to try!

Olive hands him the blindfold. He ties it on as the girls find their places.

48 ARI (CONT'D) 48
Get ready, here I come.

The girls smile and suppress their <SFX: GIGGLES> as Ari holds his arms out. As he starts walking, he moves much more confidently than Olive did.

49 ARI (CONT'D) 49
Let's see... where are you...

He walks straight to Elinor and tags her.

50 ARI (CONT'D) 50
Got you!

51 OLIVE 51
Wow! You didn't even say Marco.

52 ELINOR 52
Yeah, how did you find me so fast,
Ari?

Ari shrugs.

53 ARI 53
I just kind of... heard you were
over here?

54 ELINOR 54
But I was totally quiet! I never
said Polo.

55 ARI 55
Hmm, you're right. I'm not sure.
Let's try again?

He puts the blindfold back on and the girls find their
places.

56 ARI (CONT'D) 56
Marco!

57 ELINOR/OLIVE 57
Polo!

He heads right for Olive, who dodges out of the way and goes
behind the bush. Ari easily follows her around the bush and
tags her.

58 ARI 58
Got you!

59 OLIVE 59
But... how? How did you know I went
around the bush?

60 ELINOR 60
Is the blindfold working?

They check and it looks good.

61 ARI 61
I couldn't see anything!

62 ELINOR 62
Wow. I wonder how you were able to
find us so well.

63 OLIVE 63
Yeah, even when we were super
quiet?

64 ELINOR 64
Hmmm, we need more observations.
Ari, do you have an extra eye
somewhere?

They check his head and forehead for a third eyeball, but
don't find one.

65 OLIVE 65
Nope. So how did you do it?

66 ARI 66
(shrugging)
I dunno. I can just.. hear where
things are?

Just then, Mr. Bat comes over.

67 MR. BAT 67
Good news kids! The tent is all set
up, so it's time to go for a walk!

The kids <SFX: YAY! AWESOME!> and follow Mr. Bat, except for
Elinor, who hangs back a little, still a bit puzzled.

3. EXT CLIFFS -- LATE AFTERNOON 3.

A cross-fade later, Mr. and Mrs. Bat lead the kids on a walk
with Miri in the stroller (or in a baby carrier). Mrs. Bat
takes out some baggies of trail mix.

68 MRS. BAT 68
Here, pass these out to your
friends, Ari.

69 OLIVE 69
Looks good. What is it?

Ari passes them around.

70 ARI 70
It's called "trail mix"

71 ELINOR 71
What's that?

72 ARI 72
Chocolate chips and other stuff.

73 OLIVE 73
What other stuff?

74 ARI 74
I dunno. I only eat the chocolate
chips.

The kids <SFX: GIGGLE> as they munch on the trail mix.

75 ELINOR 75
I love going for a walk in a new
place.

76 MR. BAT 76
Well, I'm excited to show you all
something REALLY extra cool.

They come around a bend and up to a lookout spot (with wooden
guard rails) at the edge of a modest canyon. It's a nice
view, and they can see pretty far down the canyon as the sun
is low on the horizon. Across the canyon (not too far away)
is a tall flat cliff face.

77 OLIVE 77
Wow, what a nice spot. It's SO
beautiful here.

78 MR. BAT 78
Look at those smooth, tall rocks.

79 ELINOR 79
Wow, I've never seen rocks like
that before.

Ari goes to pop a chocolate chip in his mouth, but misses. He
scrambles, but the chip falls over the edge.

80 ARI 80
Oh NOOOO!

A moment later, his echo returns <SFX: (ECHO) OH NOOOOO...>.
The kids are all really surprised.

81 ARI (CONT'D) 81
Who said that?

Mr. Bat smiles.

82 MR. BAT 82
Watch this, and you'll figure it
out for yourself.

He cups his hands towards the cliff.

83 MR. BAT (CONT'D) 83
HELLO!

A moment later his <SFX: (ECHO) HELLO...> returns. Olive and Elinor are amazed, and try it themselves.

84 ELINOR 84
HELLO I'm Elinor!

<SFX: (ECHO) HELLO I'M ELINOR...>.

The kids <SFX: LAUGH>. Olive <SFX: TRUMPETS> towards the cliff and it <SFX: (ECHO) TRUMPETS> back to her!

85 ELINOR (CONT'D) 85
How is that happening?

86 ARI 86
It's like the rocks are talking back to us.

87 MR. BAT 87
Haha, in a way, Ari. What you're hearing is the sound of your voice bouncing off the rock and coming back to us. That sound is called an 'echo'.

We see a THOUGHT BUBBLE that illustrates sound as wiggly waves being emitted from the kids. One of the wiggly lines bounces off the cliff and comes back.

88 OLIVE 88
Echo. I like that word.

89 ARI 89
That's so neat! (to the canyon) ARI
IS SO COOL!

The cliff echoes back <SFX: ECHO ARI IS SO COOL>.

90 ARI (CONT'D) 90
Hey, the rocks agree with me.

The kids <SFX: GIGGLE>. Elinor tries again. This time, she closes her eye in her effort to make it louder.

91 ELINOR 91
CAMPING IS FUN!

The canyon echoes back <SFX: (ECHO) CAMPING IS FUN...>. Elinor opens her eyes.

Mr. and Mrs. Bat look at each other knowingly.

102	MR. BAT	102
	Actually, Ari, you do. You have a special bat echo.	
103	ARI	103
	Really? I do? I mean, of course I do. Uh, how does it work?	
104	MR. BAT	104
	Bats can make a special noise that makes echoes.	
105	ARI	105
	Like this? <nonsense sound>	
106	MR. BAT	106
	Haha. That's a funny noise. I mean a special noise that most animals can't hear.	
107	ELINOR	107
	Wow, really?	
108	MR. BAT	108
	Yes! Only bats can hear it (he wiggles his ears), and we use it to tell what is around us.	

We see a THOUGHT BUBBLE that shows Mr. Bat walking in the forest, emitting sound wiggles that bounce off trees and rocks (similar to the echo visualization earlier). His ears twitch as he registers the wiggles. The kids are <SFX: AMAZED WALLA>.

109	ELINOR	109
	Why can bats do that?	
110	MR. BAT	110
	Well, lots of bats like to fly at night. Can you guess why this special echo would be helpful?	

The kids think for a bit <SFX: HMMM>.

111	OLIVE	111
	I know! Because it's dark at night and you can't see! It's like closing your eyes.	

112 MR. BAT 112
That's right. This special echo
helps bats find things in the dark,
like food.

113 ARI 113
Ooh, night snacks!

They <SFX: LAUGH> and then kids sing to recap.

114 ELINOR/OLIVE/ARI 114
We say Echo! Echo!
The rocks say "Echo"! (last word is
echoed)
We say "Hello! Hello!"
The rocks say "Hello!" (last word
is echoed)

ELINOR: I can use
my eyes to see
what is right
in front of me.

OLIVE: But bats can make
a special sound
To help them know
What's around.

ALL: Bats use echos
And special ears
So they can tell
What's far and near
We say Echo! Echo!
The rocks say "Echo"! (last word is
echoed)
We say "Hello! Hello!"
The rocks say "Hello!" (last word
is echoed)

As the kids finish the song, we see and hear Ari's stomach
<SFX: GRUMBLE>.

115 MR. BAT 115
You don't have to echo that Ari, I
know what that means: it's time for
dinner!

Over <SFX: LAUGHTER/AWESOME> merriment, they head back to
camp.

4. EXT CAMPSITE -- EVENING

4.

It's later, and everyone is sitting around a nice campfire, roasting veggie dogs on their long sticks.

116 OLIVE 116
I think mine is ready.

117 ARI 117
Hmm, mine needs another minute. I like it extra cooked.

118 MR. BAT 118
You mean extra burnt?

119 ARI 119
No, I like it burnt just right.

They <SFX: LAUGH>. Ari takes his food off the fire and Mrs Bat puts it on plates to cool.

120 MRS. BAT 120
It's so nice to have a cozy campfire dinner.

121 OLIVE 121
That reminds me! I want to read my book by the cozy campfire.

122 MRS. BAT 122
Great idea, Olive.

123 OLIVE 123
But, I left my book in my tent.

She looks over into the darkness.

124 OLIVE (CONT'D) 124
And.. It's pretty dark over there.

125 ARI 125
I'll get it for you. Bats are great at getting around in the dark.

He navigates confidently to Olive's tent, humming the tune from the ditty. Elinor looks at him and we see in a THOUGHT BUBBLE what she's thinking: she imagines Ari walking and the sound waves bouncing off the things around him. Ari then comes back, with an extra bag of trail mix in hand.

126 ARI (CONT'D) 126
Here you go, Olive.

He gives Olive her book.

127	MR. BAT	127
	And what else did you find?	
128	ARI	128
	An extra bag of trail mix. Like you said dad, bats are good at finding food in the dark!	
129	MR. BAT	129
	I'll echo that! Bats are good at finding food in the dark!	

They all <SFX: LAUGH> as the view pulls up into the starry
night sky and we...

FADE OUT.