

ELINOR WONDERS WHY

EP 111A Leave it to Ari

By: Jorge Cham and Daniel Whiteson

Elinor's Question: Who rakes the leaves in the forest?

Logline: Elinor learns that the forest does its own composting

Curriculum Goals: LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs: (The kids realize that the plants in the forest and the garden depend on the composting leaves for some of their food)

ND4 - Flows, Cycles, and Conservation': Appreciate the way that elements in the natural world change, interact and are re-used, and how we can organize our designed world to better fit and care for the environment. [The kids learn that leaves are reused in the forest to make soil; they can do the same with their leaves and veggie scraps.]

ET2b: Use a variety of low-tech tools including...magnifiers [the kids use a magnifying glass]

SEP1b Ask more complex questions about observable phenomena [they wonder where the leaves go]

SEP3a: Identify and use a greater variety of tools to extend the senses for observing, measuring, and recording data about objects and events [they use a magnifying glass to look closely at leaves]

SEP3b: Compare and contrast objects and events by describing similarities and differences in detail [they compare the freshest fallen leaves to the oldest]

SEP6a: Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena (science) [They combine their knowledge of leaves with what they see to figure out that leaves break down]

SEP8. Obtaining, evaluating and communicating information a. Obtain information through discussing prior knowledge and observations with experts including teachers or knowledgeable adults? [they share their conclusions with Ari's father, who also tells them about composting]

MAINS: Elinor, Ari, Olive, Mr. Bat

LOCATIONS: Ari's yard, Forest

PROPS: Wagon, rakes, notebook, magnifying glass, lots of leaves, compost, soil, worms.

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FIRST DRAFT: April 4, 2019
SECOND DRAFT: April 26, 2019
POLISH: May 15, 2019
RECORD DRAFT: May 27, 2019

1. EXT ARI'S HOUSE -- DAY

Open on a crisp Fall day in Animal Town.

CU: a branch outside Ari's house. We see a golden leaf quiver in the wind, and then break off of the tree and fall to the ground. A moment later, we see Ari's dad, MR. BAT, pick up the leaf and examine it.

1	MR. BAT	1
	Fall is here, that's for sure!	

<SFX: We hear the kids giggling off screen>

PULL BACK AND REVEAL: the whole yard is covered in golden, red and brown leaves. At that moment, ARI, ELINOR, and OLIVE run up.

2	ELINOR	2
	Wow! Look at all the leaves!	

3	ARI	3
	The yard is covered with them.	

Olive puts down her satchel and the kids have fun in the leaves. They throw them up in the air, they "swim" in them.
<SFX: KIDS HAVING FUN WALLA>

Olive picks up a leaf that is yellow and red.

4	OLIVE	4
	I love all the colors!	

Elinor gets curious and also picks up a leaf. She bends it around one finger and it doesn't break.

5	ELINOR	5
	Look, I can wrap one around my finger!	

6	ARI	6
	Look at THIS, Elinor and Olive! We can make "leaf birds"!	

Ari lays down and waves his arms and legs to make a "leaf bird" (like a snow angel) and the other kids follow suit. Each one says which kind of bird it looks like.

7	ELINOR	7
	Mine looks like an owl!	

8	OLIVE	8
	Mine looks like a flamingo!	

(Her trunk makes the flamingo's long neck and beak).

9 ARI 9
Mine looks like a... a bat!

The kids <SFX: LAUGH> as Mr. Bat pulls up a wheelbarrow with gardening tools, including several small rakes, and starts taking out some canvas sacks, intending to rake the leaves himself.

10 MR. BAT 10
Well, kids, it's time for me to
start raking the leaves so we can
see the grass again.

Ari sees this and wants to help.

11 ARI 11

I can help, Dad! I'll rake all the
leaves!

Mr. Bat is pleasantly surprised.

12 MR. BAT 12
Really? Are you sure, Ari?

13 ARI 13
Yeah, the only thing we had planned
for today was to go look for worms.
But I'd rather help you. I'm a
SUPER leaf raker.

14 ELINOR 14
We'll help too!

15 OLIVE 15
Yeah, that's what friends are for.

16 MR. BAT 16

Well, thanks, kids! Here are the
rakes to gather the leaves and here
are some bags to put them in. I'll
be in the backyard if you need
anything.

The kids each grab a rake. They stand for a moment looking at the sea of leaves.

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17                                ARI                                17
    Let's rake some leaves, super leaf
    rakers!

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Musical montage: We see the kids doing their best to rake some leaves.

They work very energetically, but not very efficiently. <SFX: HAPPY KIDS WALLA> For example: we see Ari raking leaves into a pile. At the same time, Olive is raking leaves out of his pile into her own. At another moment, Ari can't resist the temptation to jump into Elinor's pile of leaves, scattering them. They share a laugh and rake them back together. Eventually, despite their goofiness, they get most of the leaves piled into a few bags.

END MONTAGE: The kids are putting the last of the leaves into one of the bags. As Olive holds it open, Elinor drops some leaves in.

18 OLIVE 18
We're just about done, guys!

19 ELINOR 19
There were sooo many leaves!

20 ARI 20

But we got them all raked up. And
now it's snack-time!

Just then, a few leaves drift onto the screen.

21 Huh? ARI (CONT'D) 21

Ari looks confused for a moment, he rakes the leaves closer to the bag so Elinor can put them in. He takes a satisfied look at the small pile, dusting off his hands to mean "job done", and prepares to put the rake away. Just then MORE leaves drift onto the screen.

[illegible]

He rakes those too, and repeats the same process. But then, a few MORE leaves drift in.

23 ARI (CONT'D) 23
I thought we were done!

24 ELINOR 24
Yeah, where are all these new
leaves coming from?

25 OLIVE 25
Let's go look.

They walk in the direction the leaves came from, and end up at the edge of Ari's yard. The trees on the other side of the path are COVERED in leaves that are falling.

PULL OUT to see that Ari's yard is next to the forest. Their eyes pop.

26 ELINOR 26
There are soooo many trees out
here!

27 OLIVE 27
With sooo many leaves!

28 ARI 28
Oh no... Are we going to have to
rake the *whole* forest?

He looks at the trees in minor panic.

29 ARI (CONT'D) 29
Oh man, that would take forever.
I'll never get my snack!

30 OLIVE 30
I'm pretty sure we don't have to
rake the WHOLE FOREST, Ari. Just
your yard.

31 ELINOR 31
Ok, but I wonder... if we don't
rake the leaves in the forest, who
DOES? Where do all the leaves that
fall from the trees go?

32 OLIVE 32
Yeah, why isn't the forest just
FULL of leaves?

We see a **THOUGHT BUBBLE** that the kids share, showing the forest filling up with leaves as they fall from trees, piling up to the top of the trees.

ARI

I never thought about that before.
New leaves fall every year. What
happens to them? Where do they go?

34 OLIVE 34
It's The Mystery of the Missing
Leaves!

35 ELINOR 35
That's SO INTERESTING!

The kids try to think of a few ideas.

36 ARI 36

Hmmm. Maybe the trees rake their
own leaves? Like how I clean my own
room?

37 ELINOR 37
Um, you never clean your room, Ari.

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38             ARI
38             True. But maybe trees are
             different!

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39 OLIVE 39

 Hmm, I've never seen a tree with a
 rake before. And trees can't move
 around anyway!

A bird flies by, holding a twig with a leaf on it in its mouth.

40	ELINOR	40
	Hey, birds can pick things up!	
	Maybe they can clean up the leaves	
	in the forest and use them to make	
	their nests?	

We see a THOUGHT BUBBLE of a bird picking up leaves and taking it to build a nest.

41 OLIVE 41

But there are too many leaves. The
birds can't use ALL of them or the
nests would be HUGE.

The thought bubble bird's nest grows to be enormous.

42 ELINOR 42
Hmmm... <beat> I have an idea!
Let's go look at the leaves in the
forest and see if we can figure it
out! We need MORE OBSERVATIONS!

43 ARI 43
Yay! I'll tell my dad.

44 OLIVE 44
I'll bring the magnifying glass and
notebook.

Ari yells over to his dad, who is busy doing something in the backyard.

45	ARI	45
	(calling)	
	Dad, we're done raking! We're going	
	to the forest now to solve a leafy	
	mystery!	

46 MR. BAT 46
(calling)
Ok, thanks for the help! Don't go
too far!

Mr. Bat continues raking, then stops for a moment.

47 MR. BAT (CONT'D) 47
(to himself)
A leafy mystery?

Back to the kids, we see them come together again and set off for the edge of the forest.

48 ELINOR 48

Let's go!

2. EXT FOREST -- DAY

The kids walk a bit into the forest. As they walk, they sing a song that summarizes what they want to know.

49

ELINOR, OLIVE, ARI

49

(singing)

*Fall is here, Fall is here
And the leaves are falling down!
We wonder who picks them from the
ground?*

*Oh where oh where
Do the leaves in the forest go?
Look high and low
That's what we want to know*

*Why oh why
Isn't the forest full?
Raking leaves would take too long
Even if you're really strong*

*Fall is here, Fall is here
And the leaves are falling down!
We wonder who picks them from the
ground?*

As the song ends, we transition to the kids looking carefully at the leaves around them.

50 ELINOR 50
SO many leaves fall from the trees
every year. Why aren't there huge
piles of them everywhere?

51 OLIVE 51
Yeah, where do all the leaves go?

Ari's stomach <RUMBLES>.

52 ARI 52
Maybe a giant hungry bat eats them?

He stomps around a little as the kids <SFX: GIGGLE>.

53 ELINOR 53
Let's take a closer look.

She picks up a leaf from the ground. It's yellow and red.

54 ARI 54
That one looks just like the leaves
at my house.

Elinor bends the leaf.

55 ELINOR 55
It's soft and bendy too, just like
the ones we raked.

56 OLIVE 56
I'll draw it in my notebook.
Colorful and bendy.

Olive draws this leaf in her notebook.

57 ARI 57
Let's get some more!

Ari grabs a big handful of leaves. The top of the pile are
fresh like the first, but leaves near the bottom are
grey/brown and mushy.

58 ARI (CONT'D) 58
Oh! Some of these look different.

He drops the pile and holds one leaf from the next layer.

59 ELINOR 59
Ooh! Interesting!

Elinor looks at the leaf Ari is holding up close with the
magnifying glass. It's the same shape and color, except most
of it has turned brown.

60 ELINOR (CONT'D) 60
These leaves are the same shape,
but it looks like they're turning
brown.

She holds up a third leaf, which is completely brown. Olive crouches down where Ari picked up the leaves.

61 OLIVE 61
If these leaves are at the bottom,
they must have fallen a while ago.

Ari takes the brown leaf from Elinor and tries to bend it. It breaks in half.

62 ARI 62
They're kind of mushy.

Olive draws this leaf in her notebook.

63	OLIVE	63
	Older leaves: Brown and mushy.	

Elinor goes over to the spot where Ari picked up the leaves.

64 ELINOR 64
Let's dig a little deeper!

She crouches down and picks up a paw-ful of the bottom leaves, looking more closely.

65 ELINOR (CONT'D) 65
Hmmm, they get darker and mushier
the deeper you go.

Olive draws a dark mush on her notebook.

66 ELINOR (CONT'D) 66
Look! And now there's just dirt,
but... The dirt under the leaves
has broken up bits of leaves in it!

Olive draws some soil with bits of leaves in it.

67 OLIVE 67
Soil...that's what my books call
dirt...with leaf bits.

Elinor gets up and dusts off her hands. The kids look at the FOUR drawings. The newer leaf is at the top, and the camera follows the progression down to the drawing of leaf bits. (Fresh leaves, brown leaves, mush of leaves, dirt with leaf bits), but if it feels to much you can skip the mush of leaves and just do three drawings.

68 ARI 68

So the newest leaves at the top are
colorful and bendy.

69 OLIVE 69
But the older leaves below are
brown and mushy.

70 ELINOR 70
And the oldest ones at the bottom
are broken up and mixed in with the
soil!

The kids understand.

71 ELINOR (CONT'D) 71
Ooooooooooh! I think I know. NOBODY
rakes the leaves in the forest.
They don't GO anywhere.

The kids share another **THOUGHT BUBBLE** of the forest trees and falling leaves. This time, the leaves don't pile up and instead merge into the soil as they get older.

72 OLIVE 72
Yeah, they just lay here and get
old and mushy and brown.

73 ARI 73
And become part of the soil!

They do a little dance of joy for solving a mystery. <SFX:
WHOO-HOO WE DID IT WALLA>

74 ELINOR 74
Let's go tell your dad our idea,
Ari!

75 ARI 75
Yeah! And have a snack!

3. EXT ARI'S HOUSE -- DAY

They come back to the house, full of excitement.

76 ARI 76

Dad! We went to figure out what happens to leaves that fall in the forest.

77 ELINOR 77
Because we wondered, if nobody
rakes them, where do they go?

78	MR. BAT Hmm. That's an interesting question. And what did you learn?	78
79	ARI We think that leaves in the forest don't get cleaned up.	79
80	OLIVE They just fall to the ground. She shows him a drawing of the freshest leaf.	80
81	ELINOR They sit there for a while and get brown and mushy. Elinor shows him the drawing of the brown leaf.	81
82	ARI And then they break into pieces and get mixed in with the soil! Ari points to the drawing of the soil with leaf bits.	82
83	MR. BAT Wow, that's amazing, kids! You noticed things and answered your own question! What great little scientists you are. Yes, leaves get old and become part of the soil. And not only that, they become part of the food that plants use to grow. The kids think that's amazing.	83
84	ELINOR Whoa... It's great all those leaves are helpful to the forest!	84
85	MR. BAT Yes, and it happens naturally on the forest floor. We call it "composting." Elinor thinks for a moment, then looks over at the bag of leaves they raked before.	85
86	ELINOR I wonder... can we turn those leaves we raked into part of the soil, too?	86

87 MR. BAT 87
Well, actually, that was the plan
all along!

Mr. Bat leads the kids to the backyard and reveals a big
compost pile in one corner.

88 OLIVE 88
What's all that?

89 MR. BAT 89
This is our composting pile. Here,
I'll show you!

He grabs one of the bags of leaves they raked before and
feeds it into a hand-cranked chipper. When he turns the
crank, the leaves get chopped up and sprayed unto the compost
pile, forming a new layer. While he works, he explains to the
kids.

90 MR. BAT (CONT'D) 90
We take the leaves you raked, chop
them up, and then add it to the
pile. It's just like the forest
floor, except that cutting them
helps them turn into soil faster.

The kids go <OOOHHHH...>. Mr. Bat takes a shovel and mixes it
around a bit. The kids dig in with their magnifying glass.

91 ELINOR 91
The ones in the bottom are brown
and mushy, just like the ones in
the forest.

92 MR. BAT 92
That's right, they've been sitting
here for a while. We also put in
leftover fruits and veggies.

93 ARI 93
The leftover food also turns into
soil?

94 MR. BAT 94
Yes! It all makes for nice new soil
that is great for helping plants
grow.

Mr. Bat digs down deep and finds some good dark, rich soil.

95 ARI 95
What are you going to do with that?

96	MR. BAT	96
	We put it in our garden.	
	He spreads the compost on their veggie garden.	
	Elinor is still looking at the hole he made when he scooped up the fresh soil.	
97	ELINOR	97
	<GASP!> There's something wiggling in there!	
	Olive looks too.	
98	OLIVE	98
	It's a worm! Yes! We found worms after all, just like we planned. Cool!	
	The kids dig excitedly with their hands. Ari finds a super long worm.	
99	ARI	99
	Look at this world-champion worm! It's the squirmiest and the wormiest!	
100	MR. BAT	100
	It sure is! Worms help turn the leaves and old food into soil. I bet if you go back to the forest and dig around some more, you'll find worms helping there, too!	
101	ELINOR	101
	And we helped too!	
102	MR. BAT	102
	Yes, you did, Elinor. Thank you very much for being so helpful today. And for being so curious!	
	Just then, a few more fresh leaves blow into the scene.	
103	ARI	103
	<Gasp!> I got this, Dad!	
	Ari runs quickly and grabs a rake.	
104	ARI (CONT'D)	104
	When it comes to raking... just LEAF it to me! Get it? "Leaf" it to me?	

Olive, Elinor and Mr. Bat <SFX: LAUGH> as Ari runs around chasing after the leaves. The camera goes up and pulls back to reveal another golden leaf hanging on a branch. The leaf wiggles and drops and gets picked up by the wind as we fade out and...

SEGMENT 2.

1. INT CLASSROOM -- DAY

Open on Ari holding an apple core, approaching the garbage can.

105	MZ. MOLE	105
	Ari, bring that apple core over here. I have a special place for leftover fruits and veggies!	

Mz. Mole shows him a small container of veggie and fruit scraps and puts Ari's apple in. Elinor and Olive come over, looking interested.

106	MZ. MOLE (CONT'D)	106
	These leftovers will be someone else's lunch!	

107	OLIVE	107
	Gross! Who would eat that?	

108	MZ. MOLE	108
	Worms! To them it's delicious! I'll tell you all about it in today's story time.	

The kids gather round. She opens a book with a diagram of a the compost cycle [apple -> apple core -> soil -> tree -> apple...] on the cover.

2. INT COMPOST PILE -- DAY

We see a pile of red and yellow leaves and fruit and veggie scraps.

109	MZ. MOLE	109
	Nature has a wonderful way to reuse leftover food, and also old plants and leaves.	

110	ARI	110
	That's compost! We do that at home.	

We zoom into the pile, showing leaves and scraps in more detail. As we watch, they get old and dry and brown.

111 MZ. MOLE 111
That's right! A pile of leftover
fruits and veggies or any old
leaves and plants will turn into
new soil for plants to grow in.

We see a time progression [sunrise/sunsets?] as the pile turns into rich soil.

112 ELINOR 112
That's so INTERESTING, Mz. Mole!
But HOW do leaves and leftovers
turn into new soil?

As it turns into soil, we see worms are wriggling around inside.

113 MZ. MOLE 113
The old leaves, plants and food get
mushy and crumbly, but there are
also some special helpers. Worms!
They eat it up!

We see the worms diving in and eating with gusto. <SFX: CHOMP, CHOMP>

114 ARI 114
Yuck! <beat> Wait, do they LIKE it?

The worms stop eating for a second.

115 MZ. MOLE 115
It's their favorite!

The worms dive in with renewed energy. <SFX: CHOMP, CHOMO>

116 OLIVE 116
How do the worms turn the old stuff
into soil?

We zoom in on the worms, see the food going in their mouths.

117 MZ. MOLE 117
Well, the worms eat the leaves and
leftovers and then the worm poop
becomes part of the soil!

We see worm poop coming out of the back of the worms.

118 ARI 118
We put the new soil in our garden.

We see the compost sprinkled into a garden.

119 MZ. MOLE 119
Yup! It helps other plants grow.

120 120

121 OLIVE 121
And those plants can make more food
for US! It's all a big circle!

122 MZ. MOLE 122
Yes! It's a CYCLE. The food gets RE-
used, so we call it RE-cycling!

The book illustration shows the cycle.

3. INT CLASSROOM -- DAY

All the kids are excitedly putting their leftover apple
cores, and orange and banana peels into the compost bin.

123 MZ. MOLE 123
Look at all this wonderful worm
food!

124 OLIVE 124
First it's lunch time for us....

125 ELINOR 125
...then it's lunch time for the
worms!

END.

*
*