

ELINOR WONDERS WHY
EWW121A The Zig Zag Plant
By: Jorge Cham and Daniel Whiteson

Elinor's Question: Which way do plants grow?

Logline: Elinor and friends find a plant that grew in a zig zag, which teaches them that plants grow upwards.

Curriculum Goals:

LS1b: Record observations about an animal's or plant's physical appearance [they record the shape of the plants]

LS3. Understand that all animals need food in order to live and grow, that they get their food from plants or from other animals, and that plants need water and light to live and grow:

a. Observe ways that animals and plants get what they need to live and grow [Most plants grow up (against gravity) and some also grow towards the sun.]

c. Help care for living things at home or in the classroom [they take care of plants in their classroom]

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

b. Ask more complex questions about observable phenomena

c. Ask and/or identify cause and effect questions that can be answered by an investigation (The kids ask questions as they try to figure out what happened to the zig-zag plant).

SEP3. Planning and carrying out investigations

d. plan and conduct simple investigations using simple tools (Using the magnifying glass and the notebook, the kids plan their investigation of the zig-zag plant).

SEP4. Analyzing and interpreting data

d. Talk about and reflect on what happened during an investigation or when solving a problem, and why it might have happened (The kids consider the evidence and reflect on what might have happened to the zig-zag plant).

SEP5. Using mathematics and computational thinking

d. Use measurement tools to measure and quantify properties of observable phenomena and objects (Olive measure the seedlings using books as unit of measure).

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)

c. Use and apply productive science discourse to support an explanation

d. Use evidence to support a theory (science) or solution to a problem (engineering) (The kids use their knowledge of the ways plants grow (always up) and the evidence they gather to try and understand why the zig-zag plant has grown so differently than the other seedlings)

SEP7. Engaging in argument from evidence

a. Engage in discussions before, during, and after investigations

b. Support thinking and argue ideas with evidence (After engaging in discussion of the evidence, the kids come up with a reasonable idea of what happened to the zig-zag plant).

MAINS: Elinor, Olive, Ari, Mz. Mole

SECONDARY: Camilla, Sally, Koa

LOCATIONS: EXT. School, Animal Town

PROPS: seedlings, zig-zag seedling, books, crayon, magnifying glass

FIRST DRAFT: 31-July-2019

SECOND DRAFT: 03-Sept-19

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RECORD DRAFT: 07-Oct-19

It's another bright sunny day in Animal Town. ELINOR and OLIVE are looking at a low table set outside their classroom, on the playground side. Other classmates are playing in the yard. On the table are rows of tiny seedling plants in small pots.

5 ELINOR 5
I hope they grow as tall as ME,
too... and my ears.

6 ARI 6
Ok, this time I'm SURE I'm going to
do it. 1,2,... backflip.

8 ARI 8
I'm OK. Maybe I should have counted
to three.

9 MZ. MOLE 9
Whoops, be careful there, Ari.
Alright, how are our little class
plants doing today, kids?

They gather around the seedling table. Elinor points to the plants.

10 ELINOR 10
They are doing so well, Mz. Mole!
Look how tall they've grown.

Olive points to her pot.

11 OLIVE 11
Yeah! I love how they're all
growing straight up out of the
ground.

The girls pose as the plants and stand straight up and tall -- Elinor on her toes with her ears together and Olive using her trunk to stretch.

12 MZ. MOLE 12

That's right! Plants grow up
towards the sky, no matter where
you plant them. Here, let me show
you.

She opens up her book and flips through a few pages.

13	MZ. MOLE (CONT'D)	13
	They grow up if you plant them in a field... Or on a hill... Or on a steep mountain... Or even on the side of a cliff!	

The Kids <SFX: WALLA "GASP!/WHOA!/OHHH">.

14 ARI 14
Wow! That's so cool.

Elinor turns to the class plants.

15 ELINOR 15
C'mon, little plants. You can do
it! Grow up, up, up!

Olive takes a crayon out of her bag.

16 OLIVE 16
Let's measure how tall they are.
This one is... about ONE crayon
high.

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17                                ARI                                17
    Hey! That's fun. Usually we DRAW
    our observations with crayons.
                                (MORE)

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ARI (CONT'D)

But we can use crayons to MEASURE observations too.

18 MZ. MOLE 18
I love it! Ok, school is almost over, so let's water the little plants. Make sure you give them a little extra today.

The kids go get the watering can.

19 ELINOR 19
Why do they need extra water, Mz. Mole? Are they extra thirsty?

They work together and start to water the plants.

20 MZ. MOLE 20
Well, Elinor, tomorrow is the weekend, and there's no school for two days. So there won't be anybody here to water them!

21 ARI 21
Wow, two days without school will give me lots of time to practice my backflips.

The kids finish watering the plants and set down the watering can.

22 MZ. MOLE 22
Oh, I'm sure you'll find lots of ways to have fun.

23 ELINOR 23
I can't wait to see how much the plants have grown by then.

24 OLIVE 24
Me too.

The kids in the playground file into the classroom, followed by Mz. Mole, Elinor, Olive and Ari. As they walk in, Ari stays behind.

25 ARI 25
One more backflip before the weekend... Oof! Awww...

Ari tries again, but doesn't quite land it, this time bumping into the table a little. He picks himself up and runs inside. The camera lingers on one of the seedlings, which has been knocked over.

2. EXT ANIMAL TOWN

We see the sun set, the night pass, and the sun rise over Animal Town. Over music, we see a montage of scenes of the kids having fun on the weekend:

- Elinor and Olive reading a huge stack of books
- Ari practicing a backflip

We see the sun set, the night pass, and the sun rise over Animal Town. We see a montage of scenes of the kids having more fun:

- Elinor and Olive looking at plants in Elinor's backyard
- Ari practicing a backflip

We see the sun set, the night pass, and the sun rise over Animal Town.

3. EXT ELINOR'S SCHOOL -- TWO DAYS LATER

It's the start of a new school day. Elinor and Olive run towards the school and catch Mz. Mole as she is opening the door to the school.

26	ELINOR	26
	Good morning, Mz. Mole.	
27	MZ. MOLE	27
	Well well, you're both here bright and early!	
28	ELINOR (PANTING)	28
	We just... couldn't... wait...	
29	OLIVE (PANTING)	29
	To... see... how much...	
30	ELINOR (NOW RECOVERED)	30
	The plants grew!	
31	OLIVE	31
	They've been growing the whole weekend! I wonder how tall they got?	
	Mz. Mole opens the door and Elinor and Olive run in.	
32	MZ. MOLE	32
	Oh my!	

The kids rush in, hurriedly drop their things in the cubbies (except for Olive, who keeps her satchel) and head for the door to the playground. Mz. Mole <SFX: CHUCKLES> to herself as more kids start coming in.

4. EXT SCHOOL -- DAY

Elinor and Olive rush out and run over to go check on the seedlings, which are now taller. Other kids also start to filter out into the playground.

33 ELINOR 33
Wow, look how much they grew.

34 OLIVE 34
They are so much taller, I hardly
recognize them.

Olive takes out some crayons.

35 OLIVE (CONT'D) 35
Let's measure them. This one is...
One... TWO crayons high.

36 ELINOR 36
Good job little plant. I knew you
would grow taller.

Ari blows in. He sets down his lunch box and spots Elinor and Olive.

37 ARI 37

Hi, Elinor and Olive! Guess what? I
spent the WHOLE weekend practicing
my backflip. Ready to check it out?

38 ELINOR 38
Sure, Ari.

39	ARI	39
	Prepare to be impressed. 1,2,3...	
	hup!	

Ari tries a backflip, with a bit more effort, but still can't quite land it. He flaps his wings more willdly and ends up on his stomach again.

40	ARI (CONT'D)	40
	Oof! Maybe I should've counted to four.	

Olive helps him up.

41 ARI (CONT'D) 41
I don't get it. I practiced for two
whole days.

He dusts himself off.

42 ARI (CONT'D) 42
Wait, it's been two days since we
checked our plants. How are they
doing?

43 ELINOR 43
Olive and I just measured one of
them and it's TWO CRAYONS high.

44	ARI	44
	Wow, it grew a lot.	

Ari inspects the plants, using the two crayons to look at each one. As we pan on them, the kids notice something odd: all the plants are pointing up, but one plant looks like a zig-zag!

45 ARI (CONT'D) 45
 Woah! This one isn't as tall as the
 others.

OLIVE

It looks like... a zig-zag?

47 ELINOR 47
 <GASP!> It does look like a zig-
 zag! That's amazing.

48 ARI 48
Hey, it's just like me. When I'm
not zigging, I'm zagging!

Ari does some zig-zags, and the kids <SFX: GIGGLE>. Elinor goes back to the plant.

49 ELINOR 49
That is SO INTERESTING. I wonder
why this plant looks like that and
the others don't?

50 OLIVE 50
Yeah, all the other plants look
like they grew straight up.

51 ARI 51
Hmmm, maybe it's a different *kind*
of plant?

52 ELINOR 52
But... the leaves look like they're
the same shape. I think it's the
same kind of plant.

53 OLIVE 53
But why would *this* plant grow in a
different shape?

54 ELINOR 54
Maybe it has a different kind of
dirt in the pot. (thinks about it,
then) We need MORE observations!

Olive takes out the magnifying glass from her satchel and hands it to Elinor. The kids give the plant a careful look. The POV pans between the bases of the zig-zag plant and a few other plants.

55 ELINOR (CONT'D) 55
The dirt looks the same... but
wait, what's this?

The POV spots a little mound of dirt near the zig zag plant.

56 ELINOR (CONT'D) 56
There's a little pile of dirt
there. I don't remember seeing that
before, do you?

Olive shakes her head <SFX: UH-UH>.

57 ARI (MYSTERIOUSLY) 57
Oooh... Maybe it's a clue to our
mystery!

58 OLIVE 58
But what does it mean?

59 ELINOR 59
 Hmm, I don't know...

[illegible]

The kids think for a beat, then Elinor has an idea.

61 ELINOR 61
Let's look for more clues!

The kids march in a line, following Elinor who is stooping low and looking at everything through the magnifying glass. They do a quick loop around the immediate area.

62 OLIVE 62
Did you find anything?

Elinor shakes her head <SFX: UH-UH>.

63 OLIVE (CONT'D) 63
What else can we try?

Elinor examines the little pile of dirt again.

64 ELINOR 64
Hmmm, *something* must have happened
to make the plant grow in a zig-
zag. (looks at the playground) I
know! Let's ask the other kids if
they have any ideas.

65 OLIVE 65
Oooh, yes. I'll write what they say
in my notebook.

Olive takes out her NOTEBOOK and the kids head out to the
playground, where there are other kids playing.

5. EXT PLAYGROUND -- SERIES OF CUTS

Like in a detective story, we see a series of short cuts of
our three main kids interviewing potential witnesses.

66 OLIVE 66
Camilla, do you know why one of the
plants grew like a zig-zag?

67 CAMILLA 67
I'm so glad you said plants. I was
just thinking about the beautiful
petunias that my mom planted in our
garden. I love plants with flowers.
I love roses and poppies and... Oh,
roses smell SO nice, and...

The kids look at each other.

68 ELINOR 68
Um, Camilla, what does this have to
do with the class plants?

69 CAMILLA 69
Oh. I don't know. Do the class
plants have flowers?

70 OLIVE 70
Uh, we'll come back later.

Cut to Koa:

71	ELINOR	71
	Koa, do you know why one of the class plants grew in a zig-zag?	
72	KOA	72
	Mmmm nope.	
73	OLIVE	73
	Did you see anything happen to it?	
74	KOA	74
	Mmmm nope.	
75	ELINOR	75
	Have you ever seen a plant grow in a zig-zag before?	
76	KOA	76
	Mmmm nope.	
77	ARI	77
	Do you ever say anything besides "nope"?	
78	KOA	78
	Mmmm (thinks about it)... Yup.	

Cut to Sally:

79	ARI	79
	Sally, do you know why one of the plants grew in a zig-zag?	
80	SALLY (NERVOUSLY)	80
	It wasn't me. Oh no. Not me. I wasn't even there. Nope. Is the plant ok? Oh my. Should we call the plant doctor? I was over here playing the whole time. (after a beat) Wait, did you say the plant grew in a zig-zag??	

Elinor, Olive and Ari look at each other and <SFX: SIGH>.

6. EXT SCHOOL -- PLANT TABLE

The kids return to the table with the plants, having made no progress.

90 OLIVE 90
 Ari. Maybe you knocked over the
 plant when we left before the
 weekend, like you did just now.
 That's how the first pile of dirt
 got there.

91 ELINOR 91
 That means the plant was on its
 SIDE when we went home. Hmmm...

Science CU: Plant is still on its side. Elinor examines the
 first bend in the zig zag. She follows the plant out of the
 dirt and then up as it turns towards the sky.

92 ELINOR (CONT'D) 92
 Now THIS part of the plant is going
 up. I think that's a clue.

93 ARI 93
 What do you mean? I'm still
 clueless.

A thought bubble illustrates Elinor's hypothesizing.

94 ELINOR 94
 First, the plant grew straight up
 from the pot, just like all the
 other plants. But then it got
 knocked over, so it was on its side
 all weekend. But plants always grow
 UP, so it must have changed which
 way it was growing.

In the thought bubble, we see a recreation of the events: The
 little plant grows up, gets knocked over by Ari, then we see
 a close up of the plant as it changes direction of growth.

95 OLIVE 95
 That's just like in Mz. Mole's
 book. Plants grow up towards the
 sky, no matter which way the ground
 is.

96 ELINOR 96
 That's right.

97 ARI 97
 Yes! I think we figured it out.
 <beat> But wait. That explains the
 first zig, but what about the zag?

As he says, "zig" and "zag" Ari bends his body and head to
 mimic the plant.

98 OLIVE 98
 (looking at the plant)
 Yeah, why did it bend one way and
 then bend back the other way?

The kids look puzzled again <SFX: HMM>. At that moment, Mz.
 Mole walks by.

99 MZ. MOLE 99
 Hello, kids. Oh, did that plant get
 knocked over again?

Mz. Mole stops and puts the plant right-side up again. Elinor
 reacts <SFX: GASP!> to this.

100 ELINOR 100
 Mz. Mole, why did you say this
 plant got knocked over AGAIN?

101 MZ. MOLE 101
 Well, because it was knocked over
 before. I came into school
 yesterday to prepare some things
 for today, and I found that little
 plant on its side. So I picked it
 up and set it straight again.

The kids look momentarily puzzled, but then understanding
 breaks through.

102 ELINOR 102
 <GASP!> I think I know what
 happened.

103 OLIVE 103
 Me too!

104 ARI 104
 And me!

As they talk, we see the full story in a thought bubble with
 their narration.

105 ELINOR 105
 This plant started growing UP, just
 like all the others...

106 ARI 106
 But then I knocked it over and put
 it on its side.

On the thought bubble, we see the plant tipped over with the
 little pile of dirt.

107 OLIVE 107
 So the plant changed the way it was
 growing to go up. That made the
 first zig.

108 ELINOR 108
 Then Mz. Mole picked up the pot and
 set it straight.

109 ARI 109
 So the plant turned AGAIN to keep
 growing up. Zig and then zag!

110 ELINOR 110
 That's it! We solved the mystery.
 If you put a plant sideways and
 then right side up, it will grow
 like a zig-zag.

111 OLIVE 111
 Because plants always grow UP.

On their positive energy, we segue into a ditty:

112 ELINOR/OLIVE/ARI 112
 Up, up, up!
 Plants grow up
 Even if the ground
 Tilts a lot

 Up on a mountain
 Or on a hillside
 Plants will grow
 Up to the sky!

 This little plant
 Zigged and zagged
 What could have made
 It grow like that?

 Up, up, up!
 Plants grow up
 Even if the ground
 Tilts a lot.

We end the song montage on a shot of the zig-zag plant.

113 ELINOR 113
 Mz. Mole, do you think its OK that
 the plant grew like that?

114 MZ. MOLE 114
Of course! Most plants will find a way to grow upwards, even if it takes a zig and a zag.

115 OLIVE 115
Well, I think it looks pretty cool.

116 ARI 116
I think it looks... awesome!

Ari cheers and in his excitement, jumps and does a backflip. This time, he lands it!

117 ARI (CONT'D) 117
<GASP!> I did it! I did a backflip!

118 ELINOR 118
Wow, Ari, how did you do it?

119 ARI 119
Well, I did just like the plant and went up, up, UP!

He flips again, and on <SFX: LAUGHTER> and merriment, we...

SEGMENT 2.

1. EXT. SCHOOL GARDEN - DAY

Ari and Elinor are surprised to find Mz. Mole laying on the ground and staring closely at the dirt in the school garden bed.

120 MZ. MOLE 120
(earnest and enthusiastic)
Come on. Come on. You can do it!

121 ELINOR 121
(giggling)
Mz. Mole? Who are you talking to?

122 MZ. MOLE 122
The plants! I'm watching them grow.

The children look at the garden bed, but there is nothing there but dirt.

123 ARI 123
You can't watch plants grow, Mz. Mole. They grow too slowly.

124

MZ. MOLE

124

Some plants can grow quicker than
you might think. Look here.

Mz. Mole sits up and pulls out her pop up book. She opens the
pages, to reveal...

2. INT. BOOK - KIKI'S KITCHEN - DAY

POP-UP BOOK STYLE of animation depicts Kiki's kitchen table
near a window. A small potted cactus and a small potted
bamboo plant sit on the table. They are the same height,
already young plants (not starting as seeds). Sunlight comes
through the window at an angle. Kiki enters the scene holding
a small watering can and briefly waters both plants. A cereal
box and bowl of cereal sit on the table. Then she sits down
at the table and eats breakfast. The cactus sits to her left,
the bamboo to her right.

125

MZ. MOLE (V.O.)

125

All plants need water and sunlight
to grow. Some plants grow slowly,
and some plants grow quickly. A
cactus like this one...
(she indicates with her
finger)
might grow very slowly, while
bamboo plants like this one
(again indicating with her
finger)
can grow very quickly.

126

ARI (V.O.)

126

They look the same size to me.

127

MZ. MOLE (V.O.)

127

Yes, they are the same size now,
but let's see what happens later in
the day around lunchtime.

Kiki has finished her breakfast and exits the scene. Page
flip. The sun through the window moves, and the sun has
shifted in the sky, indicating a change in time. It is now
lunchtime, and the light is coming straight through the
window. The cactus has not changed size, but the bamboo has
grown several inches taller. Kiki re-enters and sits down at
the table for lunch. A sandwich on a plate is already there
between the plants.

128

ELINOR (V.O.)

128

Look! The bamboo has zoomed up!

129 MZ. MOLE (V.O.) 129
That's right. By lunchtime, the
bamboo has grown much taller.

130 ARI (V.O.) 130
Why didn't the cactus grow?

131 MZ. MOLE (V.O.) 131
It did grow, but only a little.
Let's check in with them at dinner
time.

Kiki has finished her lunch and exits the scene. Page flip.
The sunlight through the window changes, indicating a change
in time. A plate of salad sits on the table between the
plants. It is now dinner time, and the light outside is
almost dark. The moon is also up. The cactus still has not
changed size, but the bamboo has grown another few inches
taller. Kiki re-enters and sits down at the table for dinner.
She eats a salad.

132 ELINOR (V.O.) 132
Wow! The bamboo is even taller!

133 MZ. MOLE (V.O.) 133
Yes! The fastest growing plant in
the world is a type of bamboo like
this one. It can grow 35 inches
taller in a single day!

3. EXT. SCHOOL GARDEN - DAY

BACK AT: The school garden. Mz. Mole closes the book.

134 MZ. MOLE 134
35 inches is as tall as you, Ari!

135 ARI 135
Wow! But the cactus is still small.

136 MZ. MOLE 136
It's growing, but so slowly it's
hard to see. Some cactus take a
year to grow one inch.

Mz Mole indicates one inch with her fingers.

137 ARI 137
That's really slow! If I could be a
plant, I'd want to be bamboo. Then
I'd be a giant in no time!

They all laugh. Something on the ground catches Elinor's eye. A tiny green sprout is peeking out of the dirt.

138 ELINOR 138
Look Mz. Mole! The garden is
growing!

139 MZ. MOLE 139
Ooh! I wonder how big it will get.
There's only one way to find out!

The three of them lay down on the ground around the tiny sprout and watch it closely.

140 ARI 140

If this is going to take a while,
I'm going to need a snack.

Everyone <SFX: LAUGHS>.

THE END.

THE END.