ELINOR WONDERS WHY

EP. #105A “The Tomato Drop”

By: Karen Moonah

Elinor's Question: How do you make a tomato fall more slowly*?*

Logline: *When Elinor and friends enter a 'tomato drop' contest, they design a solution (a parachute) to help a tomato fall more slowly so that it doesn't splatter.*

ES1. Understand that the Earth is made up of a variety of natural materials. a. Explore and describe the characteristics of earth materials such as sand, rocks, soil, water, and air.
ND3. (RTL Crosscutting concept ‘Structure and Function’): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. Elinor and her friends will design a tomato parachute to help the tomato fall slowly, as a leaf does)
SEP 1. Defining problems (engineering) d.) Identify a problem (how to drop a tomato without damaging it) that can be solved by the design of a new or improved object or tool.
SEP 3. Planning and carrying out investigations. e.) Design and build a solution to a simple problem. (engineering) (Elinor designs a parachute)
SEP 6. Designing solutions (engineering) d.) Use evidence to support a (theory or) solution to a problem. (Elinor observes the scarf falls slowly and surmises it might help the tomato also fall slowly)
"Agree with everyone else. The line of thinking is very clear and preschool friendly. Ithink in addition to the other curriculum this episode addresses the engineering standards such as ""Understand that because there is always more than one possible solution to a problem, it is useful to compare and test designs"""

LINE COUNT - 98
Main Characters: Elinor, Olive, Ari, Farmer Bear
Secondary: Sally, Lamb Sisters
Background: Ranger Rabbit, Senor Tipir)
Setting: Farmer Bear's Farm
Props: Triangle, Team Notebook, scarf, tomatoes, donut, wool, bread, box, springs, dandelion fluff, tape, leaf, pnecone, papaer, twig, leaf.

OUTLINE: 14-DEC-2018
FIRST DRAFT: 17-JAN-2019
SECOND DRAFT: 8-FEB-2019
POLISH: 25-FEB-2019
RECORD DRAFT: 4-MAR-2019

1. EXT. FARMER BEAR'S FARM - DAY

ESTABLISHING. It's a late summer day in Animal Town, and Farmer Bear is hosting a small 'Tomato Festival' to mark the end of the tomato harvest. Her farm is decorated for the occasion. TOWNSPEOPLE circulate.

In A FEW QUICK CUTS we establish the theme...

- MUSIC STAGE - SENOR TAPIR stands on a small riser, playing festive <GUITAR MUSIC>. (Music continues, under.)
- FOOD TABLE - MRS. GORILLA dumps tomatoes into her giant stewpot and attacks them with a masher, to make sauce.
- RING TOSS - SALLY BEAVER throws small hoops, trying to land one around the 'target' tomato. Finally, she rings it! *

- BARN - FARMER BEAR judges TOMATO ARTWORK, displayed on the side of her BARN. Smiling, she sticks a RIBBON on one.

1 FARMER BEAR 1
Beautiful! First place!

ELINOR, ARI and OLIVE (all with PACKS/SATCHEL) are walking through. Olive wears a SILKY RED SCARF tied around her neck.

2 ARI 2
Ahh, Farmer Bear's Tomato Festival.
My *favorite* summer tradition.

3 ELINOR 3
Me too, Ari! Tomato food, tomato games -

4 OLIVE 4
- and tomato clothes! See how my scarf is red like a tomato?

Olive playfully 'fluffs' one end of her red scarf so that it falls slowly through the air.

Just then, Farmer Bear cups her hands and bellows:

5 FARMER BEAR (BELLOWS) 5
Attention please! Anyone who wants to enter the Tomato Drop Contest, follow me to the contest area now!

Elinor waves over to her Mom, RANGER RABBIT.

6 ELINOR (EXCITED) 6
Mom, we're going to the contest!

Ranger Rabbit waves back, nodding that she's understood.

7 ELINOR (CONT'D) 7
(to her friends)
Come on, let's go!

They head off, following Farmer Bear to -

2. EXT. 'TOMATO DROP' CONTEST AREA - CONTINUOUS

Ari, Olive and Elinor join a group of kids at the contest area. (A set of LAMB TRIPLETS, and Sally Beaver.) *

There is a LADDER in the middle of a dirt patch, and near it, a basket of RIPE TOMATOES. FARMER BEAR <WHISTLES> for attention, and the group quiets.

8 FARMER BEAR 8
Welcome to the Tomato Drop! The first two teams who can drop a tomato from the top of this ladder safely - *without* splattering it - will win a *prize*.

Elinor, Olive and Ari exchange excited looks.

9 ELINOR 9
Oooh, a PRIZE!

Farmer Bear indicates the basket of tomatoes.

10 FARMER BEAR 10
Each team gets three tomatoes, and you can build anything you like, to try to keep them from splattering. Did everyone bring supplies?

The gathered kids all hold up their bulging backpacks.

11 ELINOR / ARI / OLIVE 11 *
(ad lib nodding and agreement)

Farmer Bear nods. She takes out a big old fashioned TRIANGLE.

12 FARMER BEAR 12
Great! Then let's get this contest started. Are you ready?

The kids all get into a ready stance. Farmer Bear holds her big triangle high, ready to ring it with a METAL ROD...

13 FARMER BEAR (CONT'D) 13
Set? ...GOOO-MATO!

<DINGLE-DINGLE-DING!> Her straw hat blows off as the kids stampede past, each team headed to grab their three tomatoes!

3. EXT. DROP LADDER - CONTINUOUS

Elinor, Ari and Olive run with their tomatoes to a grassy area near the ladder, and sling off their backpacks/satchel. Olive takes out their TEAM NOTEBOOK.

14 ARI 14
Okay. I've got a great idea! We take two slices of bread...

Ari gets TWO SLICES OF BREAD from his pack and hurriedly tries to tie them around a tomato, with TWINE.

15 ARI (V.O.) 15
...and tie 'em around the tomato to cushion it when it drops! It's a sandwich AND a cushion!

CU ON: The bread rips and crumbles.

16 ELINOR 16
Bread might be too crumbly, Ari.

17 ARI 17
Eh, you're right.
(brightens)
How 'bout a donut?

Undaunted, he pulls out a DONUT.

18 OLIVE (DIPLOMATIC) 18
Let's call that Plan B.

19 ELINOR 19
I have an idea, too...

Elinor pulls a few items from her own pack. SPRINGS, TAPE, and a SMALL CARDBOARD BOX.

20 ELINOR (CONT'D) 20
What if we take these squishy springs I brought...

Elinor holds the end of a spring to the outside of the box, and squeezes the spring for emphasis.

21 ELINOR (CONT'D) 21
...and tape them to the <u>out</u>side of this box. Then we can put the tomato <u>in</u>side...

As Elinor describes her idea, Olive quickly sketches it in the notebook, nodding as she draws.

22 OLIVE 22
Oh! So when we drop the tomato, it'll *bounce* instead of splatting on the ground?

Olive holds out the drawing. Around the sketch, a THOUGHT BUBBLE forms and the sketch inside animates: The box bounces a few times and then the tomato pops out, intact. The bubble bursts, leaving the original sketch on paper.

23 ELINOR 23
Hopefully!

24 ARI 24
Okay, let's try it!

They set the notebook down, and quickly get busy taping the springs all over the outside of the box. As they work, we...

MATCH DISSOLVE TO:

4. EXT. DROP LADDER - MINUTES LATER

The box is now bristling with springs. Elinor places the tomato into the box, and closes it.

25 ELINOR (CALLS) 25
Farmer Bear? We're ready to try a drop!

Farmer Bear heads over with a clipboard to watch the test. Elinor climbs the ladder with their spring-covered box.

26 FARMER BEAR 26
That's one springy box! Ready when you are.

With Olive and Ari watching anxiously, Elinor dangles the box from the top of the ladder - then releases it. Sure enough, when it hits the ground it <BOUNCES... and BOUNCES... and BOUNCES> around! Ari and Olive scramble to catch it.

27 OLIVE 27
Whoa. <BOING> Hey! <BOING> Come back here!

Finally, Ari seizes it.

28 ARI 28
<BOING> Gotcha!

Farmer Bear and the girls hurry over.

29 FARMER BEAR 29
Let's see what'cha got!

CLOSE ON the box as Ari opens it. REVEAL... a box full of splattered tomato.

30 ELINOR 30
(huff) Tomato goop. I think it bounced around too much.

Farmer Bear smiles sympathetically.

31 FARMER BEAR 31
Well, don't give up. You still have two more tomatoes!

32 LAMB #1 (PART OS) 32
Farmer Bear? We're ready to try!

CUT TO: One of the THREE LAMBS is holding a HUGE BALL OF WOOL.

33 OLIVE (PART OS) 33
Oh look, the Lamb sisters are using their soft <u>wool</u> to keep the tomato from squishing!

Farmer Bear writes on her clipboard, while one of the lambs climbs the ladder.

34 LAMB #1 34
Stand baa-a-a-ack!

The wool is dropped - it <FLOOFS> down gently. Lamb #2 reaches into the wool-ball, and pulls out - an intact tomato!

35 OLIVE / ARI / ELINOR 35 *
(cheers)

36 FARMER BEAR 36
Nicely done! Our first winners! We'll give the prizes at the end.

BACK ON Elinor, Olive and Ari, watching.

37 OLIVE 37
Now there's only one prize left.

Ari futilely plucks at his own sparse fur.

38 ARI 38
If only we had some wool!

39 ELINOR 39
We don't have to do the same thing. There must be more than *one* safe way to drop a tomato.

Just then, the <BREEZE> picks up, disturbing some dandelions growing nearby, which have gone to seed...

SCIENCE CU: Elinor notices the fluff floating by.

40 ELINOR (CONT'D) 40
Ohhh!

Elinor captures it in her hands, and holds it up.

41 ELINOR (CONT'D) 41
Dandelion fluff is nice and soft, just like the wool. (gasp) What if we use THIS to cushion the tomato?

Olive catches on and draws in the notebook...

ON THE SKETCH - a tomato with fluff gathered around it.

42 OLIVE 42
Okay! But we'll need a lot of it.

She adds more fluff. A THOUGHT BUBBLE forms around the sketch: The dandelion fluff ball drops, lands safely, and out rolls an intact tomato! The THOUGHT BUBBLE POPS, and we're back to the original sketch.

43 ARI 43
Then we'd better get fluffin'!

They all get busy gathering fluff from the dandelions all around them. As 'fluff' fills the frame, we

'FLUFF' WIPE TO:

5. EXT. SAME LOCATION - MINUTES LATER

Elinor holds a PUFF OF DANDELION FLUFF (which keeps trying to blow away) as Olive tucks the tomato inside it.

44 ELINOR 44
Oh, the fluff is getting away!

45 OLIVE 45
Nothing a little tape can't fix.

Olive <SQUICKS> out *more* than a little TAPE and rapidly wraps it around the tomato to secure the fluffy padding.

46 ELINOR 46
All done!

ANGLE ON: The real tomato is much more sparsely covered than the tomato in the notebook.

47 ARI 47
Farmer Bear! Can we try again?

CUT TO Farmer Bear, as she overhears and heads over. This time Ari climbs the ladder, full of optimism.

48 ARI (CONT'D) 48
This time we've got the right stuff! Or should I say, the right *fluff?*

Elinor laughs, but Olive shakes her head at his groaner joke.

49 ELINOR / OLIVE 49
(laugh) /(good-natured groan)

Ari drops the fluff-covered tomato from the top of the ladder. But to their dismay - <SPLAT!>

50 ELINOR 50
Aww! It smooshed again! I guess we didn't use enough fluff.

Farmer Bear gives them an upbeat smile.

51 FARMER BEAR (ENCOURAGING) 51
See, you learn something, even when they do 'smoosh.' Keep trying!

Farmer Bear EXITS, jotting on her clipboard. Ari looks down at his friends, worried.

52 ARI 52
Keep trying, sure - but we only have <u>one</u> tomato left!

Elinor picks up their last tomato.

53 ELINOR (UPBEAT) 53
That's okay. We only need <u>one</u> safe drop! Let's keep thinking. What else can we try?

Ari flies back down to join them. As he lands, a gust of air from his wings causes a fallen OAK LEAF to blow into the air. Elinor watches as the leaf *falls slowly* to the ground, right in front of her.

54 ELINOR (INTRIGUED) (CONT'D) 54
Whoa! Look at that leaf!

55 OLIVE 55
What about it?

Elinor picks it up, to examine it.

56 ELINOR 56
It fell really slowly!
(she holds it up again)
Look, I'll show you.

Elinor holds the leaf up high, then releases it again, so her friends can watch how it falls.

SCIENCE C.U. ON the leaf. As it falls slowly through the air, the lobes of the leaf flutter. (In animation, we see little wiggly 'air lines' catch on the bottom of the leaf.)

57 OLIVE 57
That IS slow.

Elinor picks up the leaf again. She holds their last tomato in one hand, the leaf in the other.

58 ELINOR 58
A leaf falls *slowly*, but a tomato falls *fast*. That's SOO interesting!

59 ARI 59
Too bad it isn't the other way around. If our *tomato* fell slowly, maybe it wouldn't splat.

Elinor turns to her friends, eyes bright with an idea.

60 ELINOR 60
Yes! I wonder if there's a way to help our tomato fall slowly too?
(beat, determined)
We need MORE OBSERVATIONS!

As she rallies her friends OS, we TRANSITION TO:

6. EXT. PARK - A 'SONG MOMENT'

Elinor leads her friends in a spontaneous song about things that 'fall slowly' as they explore the immediate area, collecting various items to test.

61 ELINOR / OLIVE / ARI 61
(singing)
Look high, look low,
For things that might fall slow
So we can figure out a way
to save our tomato

Olive frowns at hearing the accent on the wrong syl-LA-ble.

Olive (spoken) Tuh-may-TOE?
Ari (spoken) Just go with it, Olive.
All (singing) We'll hold 'em up
then let 'em go
Until we try
We'll never know

Look high and low
For things that might fall slow
So we can figure out a way
to save our tomato

By the end of the song, they have collected a PINECONE, a STRAY PIECE OF PAPER (from the coloring contest) and a TWIG.

7. EXT. TOMATO DROP AREA - CONTINUOUS

They hurry back to their working spot with their items.

62 ELINOR 62
We found some great things! Now let's see how they fall.

63 OLIVE 63
I'll put them in two piles - either 'fell fast' or 'fell slow.'

She gestures to two spots on the ground, then puts the leaf down where she indicated the 'slow' pile.

64 OLIVE (CONT'D) 64
The leaf goes here. In the slow pile.

65 ELINOR 65
Okay! First, the pinecone...

Elinor hands Ari the pinecone, and he stands atop a nearby tree stump. He holds out the pinecone - drops it - and it plummets quickly to the ground.

66 ELINOR / OLIVE / ARI (UNISON) 66
Fast!

Olive puts the pinecone in the spot for the ‘fast’ pile.

67 ELINOR 67
Next, the paper...

Elinor jumps upward with the PAPER, to hand it to Ari on his high perch. He holds it out horizontally, then releases it -

SCIENCE C.U. -As the paper falls through the air, the edges flutter. We see ‘air squiggles’ under it, slowing it down.

68 ELINOR / OLIVE / ARI (OS) 68
Slowww!

Olive puts the paper in the area for the ‘slow’ pile.

69 ELINOR 69
Now let’s try the twig.

Ari crouches down and Elinor hands him the twig. He stands up again and drops the twig - it plummets quickly. <THUMP!>

70 ELINOR / OLIVE / ARI 70
Fast!

Olive scoops up the twig to put it with the pinecone, and as she bends, her scarf dangles. This gives her a funny idea..

71 OLIVE 71
Huh. I wonder what would happen if
we dropped my scarf?

Ari beckons for the scarf, curious.

72 ARI 72
Let’s try it!

Olive unties her scarf and hands it to Elinor, who jumps it up to Ari. He holds it out, then releases it.

They watch as the scarf ‘floats’ down...

73 OLIVE / ARI 73
Slowww!

SCIENCE C.U. - the scarf drops *very* slowly, billowing as it ‘catches air’ on the way down. (With air squiggles under it.)

74 ELINOR (OS) 74
Very slow! It looks like it’s
‘catching the air’ as it falls.

ON: Olive puts the scarf in the ‘slow’ pile. Ari jumps back down to join them as they look at the results of their tests.

HOLD ON the side-by-side fast and slow piles.

75 ARI 75
So we have two things that fell *fast* - the pine cone and the twig - and three that fell *slowly.*

76 OLIVE 76
The leaf, the paper and my scarf which was the slowest of all!

BACK TO WIDE. Elinor picks up the scarf, and the last tomato.

77 ELINOR (THOUGHTFUL) 77
I wonder what would happen if we taped your slow-falling *scarf* to our *tomato*.

78 OLIVE 78
Yes! Maybe the tomato would fall more slowly too?

The kids bring out the notebook. Elinor holds out the scarf horizontally as she explains.

79 ELINOR 79
Okay, the scarf fell slowly like a parachute, so we should try to tape it to the tomato that way.

Olive sketches her scarf laying flat on the upper half of the page. Then she sketches a tomato on the bottom half.

80 ELINOR (CONT'D) 80
What if we used string to hold the tomato and scarf together?

Elinor uses a different color crayon to draw lines between the scarf's corners and the tomato.

81 OLIVE 81
We can tie a string to each corner of the scarf and tape the other ends to the tomato.

82 ARI 82
Yes! Let's try it! I'll get the string...

Ari dives into his backpack and tosses them a roll of twine.

88 At lightning speed, Olive cuts FOUR LENGTHS OF STRING, and Ari and Elinor tie each string to a corner of the scarf. 88

But when Olive grabs the tape, all that's left is a nub.

83 OLIVE 83
Oh, no. We're out of tape! How can we attach the strings to the tomato?

Elinor holds the loose strings of her parachute, stumped. Suddenly, Ari brightens. He digs out his donut, from earlier.

84 ARI 84
My donut!

85 OLIVE (INCREDULOUS) 85
Ari, this is no time for a snack!

But Elinor seizes the donut, inspired.

86 ELINOR 86
Oh, yes it is... we can tie the strings to the donut!

Elinor quickly ties the strings to the donut, like a horizontal tire swing. She sits the tomato on the donut hole!

8. EXT. DROP LADDER - CONTINUOUS

Farmer Bear watches while the Sally Beaver drops a POPSICLE-STICK 'TOMATO CASE' - it breaks on impact. <SPLAT!>

87 FARMER BEAR 87
Aww. Good effort, Sally.

Ari frantically beckons.

88 ARI (PART O.S.) 88
Farmer Bear! We have one more try!

The Farmer hustles over to watch their last attempt. The small crowd watches excitedly too.

Elinor climbs the ladder with their tomato parachute...

...while Ari and Olive worry up a storm.

89 ARI (CONT'D) 89
Ohhh, I can't watch!

Ari covers his face like a vampire - but peeks anyway.

BACK ON Elinor, dangling the tomato by its parachute.

(QUICK CUTS to the anticipation on the faces of Ari and Olive, Ranger Rabbit, and Farmer Bear with her clipboard...)

90 ELINOR (PART OS) 90
Three... two... one... DROP!

She releases it - the tomato-chute <POOFS> open! We FOLLOW the chute as it floats down slowly, landing the tomato safely on the grass, bouncing slightly on its donut landing pad.

91 ELINOR / OLIVE / ARI 91 *
(ad lib cheers)

92 FARMER BEAR 92
Hooray! Another winning team!
(beckoning)
Winners, follow me! It's time to award your *tasty prizes...*

The kids follow Farmer Bear over to where Mr. Tomato is presiding over two PRIZE BOXES on a table.

93 ARI (EXCITED) 93
Tasty? Ooh, let me guess what it is. Umm... a pineapple?

Elinor lifts the prize box lid to REVEAL... TOMATOES!

94 ELINOR / OLIVE 94
(laughs) / Guess again!

As Farmer Bear pulls out a CAMERA to snap a photo of the winners, the kids and Mr. Tomato all pose with their prizes.

95 FARMER BEAR 95
Ready? Say 'Tomato'!

With big grins, as if they were saying 'cheese' -

96 ELINOR / OLIVE / ARI 96 *
Tomatooooo!

<CAMERA FLASH!> - We FREEZE FRAME on the photo, and...

SEGMENT 2. EXT PARK -- DAY

Open on SENOR TAPIR sitting up in a tall tree with his guitar, in the park of Animal Town. A group of kids, including ELINOR and ARI, see him in the tree and point.

97 ARI 97
Senor Tapir! What are you doing up there?

98 SENOR TAPIR 98
I wanted to see what the park looks like from up here - it's very INTERESTING!

99 ARI 99
How are you gonna get down?

100 ELINOR 100
Maybe you could use a PARACHUTE!

A THOUGHT BUBBLE appears as Elinor imagines this.

101 SENOR TAPIR 101
Actually, I was just thinking about the inventor who designed the world's first parachute - Louis-Sébastien Lenormand...

Sitting on the branch, Senor Tapir starts to strum his guitar and sings. We TRANSITION to a simpler style of animation that describes what he is singing.

EXT. TOWER -- DAY

Lenormand arrives to the bottom of a tall tower and looks up.

102 SENOR TAPIR 102
(singing)
Lenormand wanted to jump off the tower,
And land nice and soft, like a leaf or a flower,
He didn't know how to safely get down,
Til he saw someone walk high above town.

PAN OVER TO REVEAL: A tight-rope walker. Lenormand watches the tightrope-walker balance using a parasol with interest.

103 SENOR TAPIR (CONT'D) 103
The umbrella trick made him think,
And from there,
He had an idea
To float down through the air..

He has an idea! We see a **THOUGHT BUBBLE** of using umbrellas to float down gently.

Lenormand runs OS then returns immediately with and armful of umbrellas and a basket of rocks and starts to climb the tower. A crowd gathers [shown in simple silhouette]

104 SENOR TAPIR (CONT'D) 104
The umbrella could help him land
safe and sound
But how big an umbrella would help
get him down?
He needed to find one just the
right size
And figuring that out would take a
few tries

At the top of the tower he starts his experiments. He drops a small rock with a small umbrella - it floats down gently.

105 SENOR TAPIR (CONT'D) 105
Design, test and improve,
It's best way to know just what to
do,

He drops a large rock with a small umbrella, it crashes down,

106 SENOR TAPIR (CONT'D) 106
Design, test and improve,
That's how he knew which umbrella
to use,

He drops a large rock with a large umbrella, it floats down gently.

107 SENOR TAPIR (CONT'D) 107
Lenormand used umbrellas and rocks,
Different sizes!
He kept trying things out,
and discovered surprises,
At last, he saw, big umbrellas were
best,
They were the ones that passed all
his tests,

Lenormand starts sketching rapidly. He dashes off screen and returns with a huge bundle of fabric attached with ropes to a harness.

108 SENOR TAPIR (CONT'D) 108
He built a device with the same
basic shape
It fit like a glove (or a very big
cape)

He dons the parachute and jumps!

109 SENOR TAPIR (CONT'D) 109

It worked out! He landed
With a gentle "Plop!"
It's best to be safe
For such a big drop!
His parachute size had been
carefully planned,
To hold him up gently as he drifted
to land.
(CHORUS)
Design, test and improve,
It's the best way to know just what
to do,
Design, test and improve,
That's how Lenormand made the
parachute.

Lenormand floats gently to the ground.

TRANSITION TO:

EXT PARK -- DAY

110 ELINOR / ARI 110

"Wow!" / "That's amazing!"

111 ELINOR 111

Do you need help getting down,
Senor Tapir?

112 SENOR TAPIR 112

No thank you Elinor, I have just
what I need!

Tapir is now wearing a parachute and jumps out of the tall tree, floating gently down. He lands and bows to the kids who applaud. <SFX: applause>.

"OUR ATTEMPT (again, take it or leave it!)
Lenormand wanted to jump off the tower
And land nice and soft, like a leaf or a flower
He didn't know how he would safely get down
Til he saw someone walking high above town

FADE OUT.