

ELINOR WONDERS WHY

EP 117 Speed Racer

By: Adam Ruben

Elinor's Question: Why is Camilla's racecar so much faster than Elinor's wagon?

Logline: When Elinor wants her wagon to move faster, she changes its shape with some inspiration from aerodynamic animals.

Curriculum Goals:

LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow. (Elinor and her friends learn that animals' shapes help them move fast.)

ND3. 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 build a car based on animals' shapes.)

SEP1d. Identify a problem that can be solved by the design of a new or improved object or tool. (Elinor and her friends identify that, to make the wagon as fast as Camilla's car, they need to improve its design.)

SEP3b. Compare and contrast objects and events by describing similarities and differences in detail. (Elinor and her friends consider the similarities [wheels] and differences [shape] between her wagon and Camilla's car.)

SEP3e. Design and build a solution to a simple problem. (Elinor and her friends design and build a faster car.)

SEP4c. Record observations to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. (Elinor and her friends notice the animals' shapes.)

SEP6b. Look for and describe patterns and relationships in natural phenomena. (Elinor and her friends notice that fast animals' shapes are similar.)

ET1. Begin to understand that asking questions, making observations, and gathering information are helpful in thinking about problems, and that it is important to clearly understand the problem before beginning to design a solution. (Elinor and her friends mistakenly believe that changing the car's decoration will make it faster.)

ET1c. Begin to understand that engineering is a collaborative process during which ideas can be exchanged and shared with others while defining a problem and working to design, test and revise a solution. (Elinor and her friends each have theories about why Camilla's car is faster.)

ET2b. Use a variety of low-tech tools including writing, drawing and painting utensils, scissors, magnifiers, balance scales, ramps, pulleys, hammers, screwdrivers, sieves, tubing, binoculars, whisks, measuring cups. (Elinor and her friends use scissors and paint to modify their car.)

Main Characters: Elinor, Olive, Ari, Mr. Rabbit

Secondary Characters: Camilla Dromedary

Backgrounds - Elinor's yard, hill near Elinor's house, forest near Elinor's house

Props - red wagon with taped-on cardboard box, paints, kid-sized racecar, bird, fish, scissors, tape, birdhouse, wood bits, Olive's notebook, Olive's backpack, crayon, pen

OUTLINE: January 25, 2019

FIRST DRAFT: February 19, 2019

SECOND DRAFT: March 11, 2019

POLISH DRAFT: April 11, 2019

1. EXT. ELINOR'S YARD - DAY

Open on a sunny afternoon in ELINOR's yard, where MR. RABBIT is building a tall birdhouse nearby. Elinor, OLIVE, and ARI are excitedly putting the finishing touches on a real roadster! It's actually a cardboard box taped to the top of a pull wagon, but the kids are chattering and laughing as they decorate and tape the box, thrilled at the prospect of riding in a self-built car.

Elinor is adding a few pieces of tape to secure the cardboard box to the wagon, while Olive paints various objects on the side.

1	ELINOR	1
	(casually singing to herself as she works)	
	We're building a car, we're building a car.	

2	OLIVE	2
	(picking up on the singing)	
	Yes we are! Yes we ARE!	

Ari pops up from inside the box, holding Elinor's helmet.

3	ARI	3
	(also singing)	
	We're gonna go far! In our caaaaar!	

4	ELINOR, OLIVE, ARI	4
	(LAUGH)	

Ari steps out of the box and hands Elinor her helmet.

5	ARI	5
	Wow! Our car looks amazing!	

6	ELINOR	6
	It sure does, Ari!	

7	ARI	7
	And those are some cool decorations, Olive.	

8	OLIVE	8
	Thanks!	

ANGLE ON: Mr. Rabbit pauses his work, smiles, and comes over to the kids.

9 MR. RABBIT 9
That looks great, kids! What are
you going to call your new car? The
Rabbit Racer? The Batmobile? The
Elephant in the VROOOOOOOOM?

10 ELINOR 10
(aside, to Olive and Ari)
My dad likes silly jokes. *

11 ARI 11
(nodding knowingly)
My dad does that, too.

12 OLIVE 12
Do you think it'll go fast, Mr.
Rabbit?

13 ELINOR 13
Yeah, I want it to go super fast! I
want to feel the wind in my ears!
SHOOOM!

Elinor quickly straps on her helmet and runs around the yard.

14 MR. RABBIT 14
There's only one way to find out.
Are you going to take it for a
ride? *

15 ARI 15
Yup! We're going to ride it down
the little hill near here.

16 MR. RABBIT 16
Okay. Have fun, kids!

Olive puts on her backpack and starts to push the wagon away.

17 OLIVE 17
(to Mr. Rabbit)
Don't worry, Mr. Rabbit, we'll be
extra careful!

18 OLIVE (CONT'D) 18
(to Ari and Elinor)
Dads also like being extra careful.

Ari and Elinor nod, and the kids exit, pushing the car,
excited to go try it out.

2. EXT. HILL - A FEW MINUTES LATER

Elinor, Olive, and Ari push the car up the hill. It's a beautiful day, and we see the wind rustle a few leaves and a flock of birds fly by (maybe swallows, who are really good fliers, or robins, or sparrows which are already designed). One of the birds swoops down and zooms near the kids, which Elinor notices.

19 ELINOR 19
Whoa! That bird is so fast!

It's not a steep hill at all - much longer than it is tall. It's the sort of hill that gives a smooth ride to excite a kindergartener, but nowhere near dangerous enough to make a parent worry. The path leading down the hillside is wide enough for at least two cars the size of Elinor's wagon.

Elinor, Olive, and Ari give the final few <GRUNTS> of pushing the wagon to the hilltop.

ARI
Phew! That was hard work.

21 ELINOR 21
Okay, we're ready for our first
test. Let's see how fast we can go!

She climbs into the car.

22 OLIVE 22
Don't forget to buckle your helmet!

Elinor buckles her helmet.

23 ARI 23

Ready?

24 ELINOR 24

Ready!

25 OLIVE 25

Set?

26 ELINOR 26

Set!

Olive and Ari position themselves behind the wagon.

27 OLIVE/ARI 27
Three! Two! One! GO!

They give the wagon a little push, and it starts to roll down the hill. It's rolling down fairly slowly - still fun for Elinor, but clearly not as fast as possible.

ANGLE ON: Elinor's face peeking out over the box, with her ears through little holes in her helmet. Her ears flap in the wind, and she closes her eyes in delight.

28 ELINOR 28
Whooooooooo!

It's a prolonged "whee" for a long, slow ride, but it gets interrupted. We suddenly ZOOM OUT to see, coasting down the path next to Elinor, CAMILLA DROMEDARY. She's driving a store-bought kid's racecar the same general size as Elinor's and with identical wheels, but the chassis looks like a real roadster, painted yellow with a racing stripe. Camilla wears a helmet that matches her car.

Camilla honks her car's horn <SFX: Honk honk!> to signal as she passes.

29 CAMILLA 29
Coming through!

Camilla's car zips past Elinor's, and Elinor looks over in astonishment.

30 ELINOR 30
 (impressed)
Whoa!

ANGLE ON: The bottom of the hill.

The look of amazement stays on Elinor's face as her car coasts to a stop - next to Camilla's, which has already been at the bottom of the hill for a few seconds.

Elinor hops out of her wagon immediately.

31 ELINOR (CONT'D) 31
Hi, Camilla!

Camilla removes her helmet.

32 CAMILLA 32
Hi, Elinor! Hold on - I have to
turn off my headlights.

She reaches down and turns off the headlights <SFX: click!>. The headlights flip over and cover themselves.

33 ELINOR 33
Your car is amazing!

34 CAMILLA 34
Thanks! It's brand new. I got it
for my birthday. I call it the
Camilla Convertible!

35 ELINOR 35
(impressed)
Cool...

Ari and Olive enter, having scampered down the hill after
Elinor's car. Camilla opens the door of her car and gets out.

36 ARI 36
Your car is so fast, Camilla!

37 OLIVE 37
I LOVE the yellow color. And look:
It has a racing stripe.

38 ARI 38
And a cup holder!

Elinor, Ari, and Olive peer in wonder at the cup holder.

CU: The cup holder with the kids' faces peering down over it.

39 ELINOR, OLIVE, ARI 39
Ooooooh.

40 CAMILLA 40
Your car is nice, too, Elinor.

41 ELINOR 41
Thanks, Camilla, we made it
ourselves - but it's not going as
fast as yours. I wonder... how can
we make OUR car go faster? *

Elinor frowns.

ANGLE ON: Elinor kneels and examines the wheels of both cars.

42 ELINOR (CONT'D) 42
Hmm. Both of our cars have the same
wheels.

ANGLE ON: Elinor stands up again. She looks back at the hill
they just descended.

43 ELINOR (CONT'D) 43
And we both went down the same
hill.

She looks back at her friends again.

44 ELINOR (CONT'D) 44
I wonder why Camilla's car is
faster than ours.

Ari looks at both cars back and forth and has an idea.

45 ARI 45

I know! Maybe if we paint our car
yellow and draw a stripe on it like
Camilla's, our car will go faster!

ELINOR

46

That's a **great** idea!

47 OLIVE 47
Let's take it back to your house
and make some changes.

Elinor, Ari, and Olive start to exit with the car.

48 ARI 48
Bye, Camilla!

Camilla waves, then takes out a rag, exhales on her hood, then uses the rag to clean it.

CROSSFADE TO:

3. EXT. ELINOR'S YARD - A FEW MINUTES LATER

Elinor, Olive, and Ari stand around Elinor's wagon with their hands on their hips. Mr. Rabbit is still building the birdhouse in the background.

[illegible]

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50              OLIVE                      50  
          And add a stripe!
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SHORT MONTAGE: The kids repaint the car. When they're finished, it's the exact same color scheme as Camilla's - yellow with a racing stripe, although a bit less polished.

There!

ELINOR

Mr. Rabbit wipes his hands and joins them.

52 MR. RABBIT 52
Very nice! But why did you repaint
your car?

53 OLIVE 53
Camilla has a fast car, and it's
yellow.

54 ELINOR 54
With a racing stripe, just like
this!

55 ARI 55
We thought if we made our car the
same color as hers, our car might
go faster too.

56 MR. RABBIT 56
Oh. Okay!

Elinor straps on her helmet.

57 ELINOR 57
And now to test it. Bye, Dad!

The kids pull their car out of the yard and off-screen.

4. EXT. FOREST - CONTINUOUS

The kids are pulling their car on the way to the hill. As they cross a short bridge over a small creek, Ari peeks over the side of the bridge and sees some fish hanging out.

58 ARI 58
Hi, little fishies!

The fish appear to look at Ari, then turn around and zip away, swimming really fast.

59 ARI (CONT'D) 59
Whoa, those are some fast fish!

He scampers to rejoin the others.

5. EXT. HILL - A FEW MINUTES LATER

The kids push the car up to the top of the hill again, and Elinor sits in the car again, helmet strapped on.

60 ELINOR 60
I have a good feeling about this!

61 OLIVE 61
Our car looks so fast!

62	ARI	62
	Ready?	
63	ELINOR	63
	Set!	
64	OLIVE, ARI	64
	GO!	

They give their car a gentle push, and it starts to roll down the hill.

ANGLE ON: Elinor once again driving her car downhill, ears flapping in the wind.

65	ELINOR	65
	WhEEEEEEEE!	

As before, we suddenly ZOOM OUT to see Camilla passing Elinor in her car. Camilla honks her car's horn <SFX: Honk honk!>.

Camilla's car zips past, and Elinor looks surprised and disappointed.

At the bottom of the hill, Camilla's car keeps going a little farther, while Elinor's rolls to a stop. She hops out as Ari and Olive catch up.

66	ARI	66
	Aw, it didn't go faster.	
67	OLIVE	67
	What happened?	
68	ELINOR	68
	Hmm.	

ANGLE ON: Elinor steps back and looks at the car.

69	ELINOR (CONT'D)	69
	Painting our car yellow with a racing stripe didn't make our car go faster.	
70	ARI	70
	I really thought that would help.	
71	OLIVE	71
	What else can we try?	

Elinor looks over at Camilla's car, then at their car.

*

72 ELINOR 72
I think we need more observations.
What else is different about our
cars?

73 ARI 73
It's got to be the cup holder,
right?

74 OLIVE 74
No - but I notice something!

Olive takes a pad of paper and a crayon from her satchel.

ANGLE ON: Overhead view of Olive drawing on paper. For each item they describe, Olive sketches a basic outline.

75 OLIVE (CONT'D) 75
Our car is boxy, like this.

She draws a rectangle with little wheels on it on the left side of the page.

76 OLIVE (CONT'D) 76
And Camilla's car is kind of shaped
like this.

She draws a straight line down the middle of the page. On the right side she doodles Camilla's car: curved, aerodynamic.

77 ARI 77

Oh! I see the difference.
Camilla's car has a different
shape.

78 ELINOR 78
You're right! We need to change the
SHAPE of our car. Come on, let's go
back to my yard!

CROSSFADE TO:

6. EXT. ELINOR'S YARD - A BIT LATER

Elinor, Olive, and Ari stand around the car in Elinor's yard. Olive has her drawing materials out.

79 OLIVE 79
Ok, let's change the shape of our
car.

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80                                ARI                                80
    But what kind of shape should it
    be?

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81 ELINOR 81
We can start by thinking of other
things that move fast.

We see a THOUGHT BUBBLE form next to a thoughtful Elinor. In the bubble, we see the birds from earlier swooping by.

82 ELINOR (CONT'D) 82
Birds! Birds are really fast!

Olive doodles a simple side profile of a bird below Camilla's car and on the right side of the page. The bird's shape is curved and aerodynamic.

A THOUGHT BUBBLE on Ari shows the fish he saw earlier zipping away.

83	ARI	83
	And fish! Fish are super fast, too!	

ANGLE ON: Olive doodles a simple side profile of a fish below the bird shape: also curved and aerodynamic. The kids observe all three shapes on the right side of the page.

84 ARI (CONT'D) 84
Wait a second, look! They're all
sort of the same shape.

85 OLIVE 85
Camilla's car, the bird, and the
fish: They're all pointy in the
front and round in the middle.

ANGLE ON: The kids smile at each other - they've figured it out!

86 ARI 86
And they're all FAST!

Mr. Rabbit walks over, wiping his hands and peering at their notebook.

87 MR. RABBIT 87

Ah, yes, that's called being
"streamlined." It means it's easier
for the wind to go around you
instead of pushing you back.

He points to the doodles in the notebook. A thought bubble forms around the drawings, and they begin to animate.

We see little squiggles of air going around the aerodynamic shapes, while they bunch up in front of the square box, pushing it a little.

88 MR. RABBIT (CONT'D) 88
So things that are streamlined can
push THROUGH the air, but boxy
things get slowed down.

The animation stops and the thought bubble poofs away, leaving the original drawing.

ANGLE ON: The kids look at the notebook. *

89 ELINOR 89
Whoa, that is so interesting!
(thinks, then)
Let's do it! Let's make the SHAPE
of our car streamlined! *

SONG MONTAGE: Elinor, Ari, and Olive change the shape of their car. Mr. Rabbit helps with scissors, and as they sing, they trim the cardboard to be pointy in front, like a bird's head. Just for fun, they also paint the car to look like a bird's head.

90 ELINOR, ARI, OLIVE 90
(singing)
OLIVE: If a car is painted slick,
ARI: But it's boxy like a brick,
ELINOR: Then it just won't go that
quick!
OLIVE: So with scissors and some
tape,
ARI: We're gonna change its shape!
ELINOR: 'Cuz we learned, and now we
know
ALL: That pointy shapes help you
go!

They share a laugh, then admire the car.

91 ELINOR 91
Woo hoo! Now it's a lot pointier.
It's like a bird car!

92 MR. RABBIT 92
You could call it: The Chicken
Coupe. (pause) That's another silly
joke. *

The kids <GIGGLE>. Elinor puts on her helmet again.

93 ELINOR 93
Okay, let's go try it!

CROSSFADE TO:

7. EXT. HILL - A BIT LATER

At the top of the hill, this time Elinor and Camilla begin their race alongside each other. Ari stands behind Elinor's car, and Olive stands behind Camilla's.

94 ARI 94

Ready?

95 OLIVE 95

Set?

[illegible]

ANGLE ON: The two cars coasting down the hill, side by side.
<SFX: WHEEE! WALLA>

ANGLE ON: The two cars arrive at the bottom of the hill at the same time. Elinor and Camilla laugh and high-five.

97 CAMILLA 97
You DID it, Elinor! Now the car you
made is just as fast as mine!

98 ELINOR 98

 Yep, all because of its pointy
 shape. It's STREAMLINED, like a
 bird!

Elinor runs around, pretending to flap her wings. Olive and Ari run into the scene, and we ZOOM OUT as they all celebrate.

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99             OLIVE, ARI                                     99
              (ad libbing)
              That was awesome! / You were so
              fast! / My turn next! / etc.

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SEGMENT 2.

1. EXT PARK -- DAY

Open on Senor Tapir, with his guitar, in the park of Animal Town, sitting on a tree stump at the edge of a pond. A group of kids sit at his feet, including Elinor and Silas Cheetah.

100	SENOR TAPIR	100	*
	Let's sing a song about SPEED. Who		*
	knows what the word speed means?		*
	Elinor's hand shoots up. She doesn't wait to be called on.		*
101	ELINOR	101	*
	Speed is how fast or slow something		*
	moves.		*
102	SILAS CHEETAH	102	*
	I can move fast!		*
	Silas suddenly bolts off screen and disappears.		*
103	SENOR TAPIR	103	*
	You sure are fast! (<i>shouting a</i>		*
	<i>little louder</i>) But you might want		*
	to come back to hear the song.		*
	Silas runs really fast back to sit down as Senor Tapir starts		*
	to strum his guitar and sings. After a line or two, we		*
	transition to a simpler style of animation that describes		*
	what he is singing.		*
104	SENOR TAPIR (CONT'D)	104	*
	(singing)		*
	Have you ever watched a train		*
	rolling down the track,		*
	And looked at the shape of its		*
	nose?		*
	The scientist Eiji Nakatsu did,		*
	And this is how the story goes.		*
	2. EXT. JAPAN -- DAY		*
	Eiji Nakatsu (a Japanese Macaque) watches the Shinkansen		*
	bullet train with a round nose zoom past on a train track.		*
	Eiji helped design a bullet train		*
	For people in Japan to ride,		*
	He looked for ideas to make the		*
	train better,		*
	By watching the birds outside.		*
	Eiji Nakatsu watches a kingfisher bird dive from the tree		*
	branches down into the water to catch a fish. We see a close		*
	up of the bird's beak, which is long, pointy and wedge-		*
	shaped.		*

(MORE)

SENOR TAPIR (CONT'D)

He saw the diving kingfisher bird,
 Its long, pointy beak so unique!
 He decided to change the bullet
 train's nose
 To be shaped like a kingfisher
 beak.

*
 *
 *
 *
 *
 *

We see the original shape of the bullet train's nose (which
 was long and round) change to the shape of the kingfisher's
 beak. The train goes through a tunnel and fast down the
 track. We see the shape of the train's nose compared to the
 shape of the kingfisher's beak. The train continues down the
 track, past trees, mountains, cities, houses, etc.

*
 *
 *
 *
 *
 *

He got to choo--choo--choose the
 shape of the train
 And make the train better than
 before,
 So he use--use--used the shape of a
 bird
 And the train went faster than
 before! Once more!

*
 *
 *
 *
 *
 *
 *

(sung even faster)

*

He got to choo --choo--choose the
 shape of the train
 And make the train better than
 before,
 So he use--use--used the shape of a
 bird
 And the train went faster than
 before! Once more!

*
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 *
 *
 *
 *
 *

NOTE TO COMPOSERS: If we are short on time, we can cut the
 last chorus.

*
 *

(sung even faster)

*

He got to choo--choo--choose the
 shape of the train
 And make the train better than
 before,
 So he use--use--used the shape of a
 bird
 And the train went faster than
 before!

*
 *
 *
 *
 *
 *
 *

3. EXT PARK -- DAY

*

105	SENOR TAPIR	105	*
	Whoah that song makes me want to go		*
	fast!		*

106	SILAS	106	*
	Let's all go fast! Follow me!		*

Silas runs fast off screen, Senor Tapir tosses his guitar on	*
the grass to follow, and all the kids run fast after him off	*
screen. <SFX: KIDS CHEER WALLA>	*

FADE OUT, THE END.