COSMOS METAPHORS

COLLIN GOSSEL

INT. SPACESHIP OF THE IMAGINATION

NEIL DEGRASSE TYSON looks into the camera. A star shines behind him in the distance.

NEIL

From out here, each star seems like a pinprick of light against a sea of black. In the Cosmos, however, appearances can be misleading. Let's take a closer look.

The stars behind Neil warp as he looks towards the window. The distant star is suddenly much closer - massive and terrifying.

NEIL

Not quite the pinprick we remember. The sun is the largest object in our solar system, with a mass 333,000 times that of Earth. To put that in perspective, imagine a one and a half kilogram black shoe. Now, fill up a standard Brooklyn warehouse with copies of your shoe. Pretty heavy, right? Well, imagine 10 million of those warehouses stacked on top of each other. To match the mass of our sun, you'll need 17 billion more 10-million warehouse stacks. That's a lot of shoes.

The spaceship dives straight through the sun and emerges on the other side, unscathed. Earth looms in the distance.

NEIL

Stars are among the most volatile entities in the cosmos, diminished to tiny twinkling lights by the vast expanses of interstellar space which separate us from them. The nearest star to our solar system, Alpha Centauri A, is just over 4 light years away. To get an idea of just how far that is, let's imagine a 10-inch black dress shoe.

Neil is now walking among CGI animations of everything he describes.

NETL

Wearing this shoe is a human being eight shoes tall, with shoes for hands. Standing shoe-to-shoe, it would take 800 million million billion of these people to stretch to Alpha Centauri. That's a lot of shoes.

EXT. GRASSY FIELD - DAY

Neil walks through the field, looking at the camera.

NEIL

Despite its distance, the sun is responsible for literally all life on our planet Earth. And it all starts here. In the grass.

Neil kneels and the camera zooms in on a blade of grass. We see an animated rendering of the grass's cell structure.

NEIL (V.O.)

Grass collects sunlight and converts it into energy. Just how much energy, you ask? Well, let's imagine each of these cells was wearing a black size-12 dress shoe from Kohls.

The shoes appear. The following is also animated.

NEIL (V.O.)

If the cells took all their shoes to a powerplant and burned them to generate electricity, that plant would have to produce 980 quad-trillion trillion volts nonstop for ten thousand years to match the energy of our sun. That's a lot of shoes. And don't forget what those factory workers are wearing. That's right. It's shoes.

INT. UNIVERSITY HALLWAY - DAY

Neil walks down the hallway.

NEIL

To learn more, I've come to Princeton University in Princeton, New Jersey: home to the famed astronomy professor, Stephanie Pierson. INT. UNIVERSITY LECTURE HALL - DAY

STEPHANIE PIERSON stands in front of a hall full of students, holding a shoe in each hand.

STEPHANIE

Imagine Earth was a shoe and the Sun was also a shoe. Space is half shoes and every life-form in existance is both a shoe and wearing a shoe. How is fusion possible at the core of a star?

A student hesitantly raises his hand. Neil watches from the back of the room

STEPHANIE

Yes?

The student takes off his shoe, holds it up, and ties it while the class looks on in awe.

STEPHANIE

(pleased)

Yes. Yes yes yes.

The class applauds. The student is proud. Neil smiles.

INT. SPACESHIP OF THE IMAGINATION

Neil sits back in his chair aboard the spaceship of imagination.

NEIL

What you've just witnessed was first realized by Albert Einstein in his General Theory of Relativity. When presenting the theory to his contemporaries at a scientific convention, he famously said "It's all shoes. Everything's shoes. Shoes shoes shoes shoes shoes shoes shoes shoes." There are many mysteries in the Cosmos, and uncovering them is part of our journey as a species. Like shoes who have just been born, we're taking our first steps into the great unknown. Whether or not we'll take the next step...well that's up to us.

EXT. SPACESHIP OF THE IMAGINATION

The spaceship, now revealed to look like a giant shoe, flies off into space. The music soars.

BLACKOUT