

Scale Model Of The Universe (How Big Is God) (Who Is Jesus) (Creation)

God made two great lights – the greater light to govern the day and the lesser light to govern the night. He also made the stars. Genesis 1:16

The Basic Bible Truth

Day four of creation should make us stop in our tracks, fall on our knees, and look up at God in awesome wonder. If we believe the Bible to be absolutely true, then Genesis is also absolutely true. Verse 16 is day four of creation. The earth and plants and light have all been created and are in place already. It is at this point that Jesus speaks the universe, the stars, the sun and the moon, into place. That fact alone goes against the prevailing “scientific models” being promoted today. I choose to believe the Bible.

The Object

A Piece Of String Line About 100 Feet Long
3 Red Arrows About 10 Inches Long
Black Construction Paper
A Pin
Some Scotch Tape
A Small LED Flashlight
A Salt Shaker



This is one of my favorite lessons to explain the power and majesty of Jesus. Colossians 1 tells us that it was Jesus who spoke the universe into existence and he also holds it all together. The first chapter of Genesis tells us that on day four of creation, Jesus spoke the entire universe into existence. I believe that to be absolutely true. With these materials, you will attempt to build a scale model of the universe to emphasize just how large it is. Begin with a strange story about stopping at a key location that everyone will recognize that is about 5/8 mile away from where you are presenting this. (The location needs to be roughly in line with the string that you will stretch through the venue where you are talking. I have been known to stretch the string over the heads of those seated if necessary.) And I literally do this by the way. I get out of my pickup, find something notable in the vicinity, like a handicap parking slot, or a light post base, and I place one tiny grain of salt down in that location. I then let the story go and explain that we will finish the story later.

I then ceremoniously stretch my string from one end of the room to another, tying it off to something as best I can, keeping in mind that grain of salt $\frac{5}{8}$ mile away. To build a scale model, you need a scale, and this one is 1 Astronomical Unit, or 1 AU. An astronomical unit is considered the distance from the earth to the sun, or roughly 93,000,000 miles. And we are representing 93,000,000 miles by the thickness of a nickel. Now that we have a scale of roughly .125 inches equals 1AU, we can start plotting distances on the model. I start with the sun. Taking my black construction paper and folding and taping it up into a sort of box, I barely poke the tip of a pin through the black paper, place the LED flashlight behind the hole and place it at the end of my string. The bright LED light will just sparkle through the hole and is a great visual of the sun.

I find the audience is usually bewildered but very interested at the odd chain of events, and then add to that the fact that you will be walking back and forth plotting points on the scale model. Walking through the group as you discuss the points on the model can be very entertaining.

Our next point is the earth. I remind them of the dust particles that you can see in a stream of bright sunlight, but cannot see any other way. I reach up into the air and pinch an invisible speck of dust between my thumb and forefinger and imaginarily place it the width of a nickel from the sun. Point number two will require one of the arrows. Pluto, the furthestmost planet/whatever they are calling it now from the sun, orbits 40AU from the sun. That is about 5 inches from the sun so I tape the first arrow pointing up to that location on the string. Next point is the Voyager spacecraft. Still in operation since 1977, and travelling 38,000 miles per hour, or 20 times the speed of a high velocity rifle bullet, it has traveled an incredible 108 AU from the sun, or about 13.3 inches. I tape my second arrow at that location. Next point will be the nearest star, a mere 4.3 light years away, or 271,000 AU. Slide the last arrow along the string, asking the audience to raise their hand when they believe the 4.3 light year mark has been reached.

Now go back to the original story, and that piece of salt that you left setting on the landmark $\frac{5}{8}$ mile away. That piece of salt is setting at the 4.3 light year mark on the scale!!! The width of the Milky Way Galaxy is 250,000 miles on this scale, or the distance to the moon! And there are stars that we have calculated to be 13.3 billion light years away! On our scale, that is 106 trillion miles!!! This universe is beyond comprehension in size, and Jesus spoke it all into existence on day four of creation!

The Lesson

You cannot imagine what life must be like for my wife. On my way here today, I stopped off at the Western Sizzlin' restaurant. You all know where that is located, way out east on Main Street, just past the Arby's restaurant. It was not open yet, and that is OK. I was not there to eat. My wife asked me what we were doing there, and I said that I was looking for a handicap parking spot. Well, you can imagine the look on her face. I stopped right next to one, the parking lot was completely empty, and I got out of my car, carrying my salt shaker. I shook a few grains of salt out in my hand. I then picked the smallest one I could find and placed it right there, in the middle of the handicap symbol painted on the asphalt. I was done, I got back in the car and headed to church. My wife just shook her head and said nothing. She knows me by now. We've been married 41 years.

I am going to leave that story right there and we will get back to it later.

In the book of Colossians we find that it was Jesus who spoke the universe and all that is, into existence. And He holds everything together. The story of creation is found in Genesis. I am going to be right up front with you and tell you with no shame or doubt whatsoever, that I believe the Genesis account of creation to be entirely accurate and true. They were 24 hours days, and creation was finished as accounted for in Scripture. If you throw out anything from this passage, you have to ask yourself, what

else am I going to throw out of the Bible? It is either all completely true, or there is doubt about everything. God is big enough to have done what He said He did. No matter what science thinks or tries to promote, I believe it requires far more faith to trust science than it does to trust God. For me, it all hinges on day four.

Day four, if true, and it is, should cause us to fall on our faces before an Almighty God and worship. On day four, Jesus spoke the sun and the moon into existence. This timing is directly opposite science today. Genesis says that the earth, water, dry land, and plants were all in place before anything else in the entire universe came into being! The last five words in my Bible read this way. *He made the stars also.* Those five words say more about the awesome majesty of God than any other. In five unassuming words, God simply says in essence, "Oh, by the way, I made the universe, too." Billions of galaxies, each filled with billions of stars, probably planets and moons and things we cannot yet imagine, are there for us to see in the heavens. And it is recorded in a casual mention using 5 little words. Amazing!

Elsewhere in Scripture we are told that He made each star unique and different, and named them all. I probably would have made a few good ones and then copied and pasted the rest. Who would know the difference? God made each one exactly the way He wanted them to be, each unique and beautiful in its own way. And He just casually mentions this amazing feat.

I would like to try to show you just how big this universe really is. And I would like to do that by building a scale model right here today. To do this the best way I know how, I am going to stretch this string from one end of the room to the other. This string is going to help us create a scale model. And just to make sure we all understand, a scale model is one that looks exactly like the original, just smaller.

Our first point that I would like to plot on our scale model is our sun. I have folded a sheet of black construction paper and have taken a pin and poked just the tip of the point through the paper. I will place an LED flashlight right behind the hole and now you can see a little, tiny sparkle of light shining out. That little sparkle of light represents our sun. Almost 1,000,000 miles in diameter!

Our next point of interest on our model is the earth. Have you ever been in your house when the sun is shining brightly and noticed the little tiny sparkles that reflect in the light? Those are very small pieces of dust, too small to be seen by the naked eye. They are actually floating around everywhere. I am going to reach up and grab one. There. You will just have to trust me that I got one. That infinitesimal speck of dust represents our earth, and I will place it roughly the thickness of a nickel from the sun. That's 93,000,000 miles to the scale of about 1/8 inch.

You understand the scale? 1/8 inch equals 93,000,000 miles, the distance from the earth to the sun. In astronomy, the measurement is referred to as an astronomical unit, or an AU.

Ok, now for a second point. Pluto. I know Pluto is no longer considered a planet in our solar system. It is a dwarf planet now, but it is near and dear to my heart, so we are going to plot its position on the scale model. Pluto orbits a bit elliptically, but for our model, we will call it an average of 40 AU from the sun. On our scale of 1/8 inch equals an AU, or 93,000,000 miles, we find Pluto way out here at 5 inches from the sun. I will place this red arrow right here to represent Pluto. Our entire solar system would fit in a circle not much larger than a basketball.

Let' move on. We have a lot of universe to cover. Let me tell you about the Voyager spacecraft. There are actually two of them, and they are still working. We know where they are and talk to them regularly. Their nuclear batteries will not last forever, but for now, we still track them. They are travelling at 38,000 miles per hour! To put that into perspective, that is 20 times the speed of a high velocity rifle bullet. At 7 miles per second, they have been travelling at that speed for 30 years, and have covered an

incredible distance from the sun. They are now at about 108 AU from the sun, or on our scale model here, at about 13.5 inches from the sun. This second arrow will represent Voyager.

Now let's go to the nearest star to our earth. Alpha Proxima is a mere 4.3 light years away. In astronomical terms, that's nothing. Remember, there are stars out there at over 13 billion light years away, so 4.3 light years is nothing much. I am going to slide my arrow along the scale model string, and ask you raise your hand about where you believe a mere 4.3 light years might be.

(I slide the entire length of the string and then turn around.)

Before I tell you where 4.3 light years is on our scale model, let's get back to my story about the grain of salt. Have you been wondering what that was all about? Well, let me explain. I needed that piece of salt in that specific place because it represents Alpha Proxima, a mere 4.3 light years away from our earth! 4.3 light years is roughly 5/8 of a mile! Our Milky Way galaxy, on our scale, would be 250,000 miles across. That is the distance to the moon! And those furthest stars out there at 13.3 billion light years, would fit on our scale at 106 trillion miles!

This universe is absolutely huge! Its size is beyond our ability to comprehend. And Jesus simply spoke it all into existence and casually mentions it using 5 little words. It should humble us!

As big as creation was, God describes making the stars and the universe as finger work. He did it all with His little pinky. But when He describes salvation, He uses words like *the strong arm of the Lord worked salvation*. What a contrast! What kind of God do we serve? An awesome one, to be sure!

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