



How do students create a solar system model?

Students can work with local government to create a scale solar system model with correct sizes and distances that spans some or all of their city, town or region. In this activity, students use spreadsheet software and their knowledge of scale, proportion and ratios to develop a solar system model that fits on a playground.

How do you scale a solar system model?

Scale solar system models by size or distance from the Sun. When building a solar system model, scale the planets either by size or distance from the Sun. Pick a base unit, like Earth-Sun distance or Mercury's diameter, then scale up the rest. This helps show just how vast space really is! Hang the planets in the box.

Is there a scale model of the Solar System?

Our finished scale model of the Solar System, complete with asteroid belt! Credit: Mary McIntyre. As the distances between the Solar System planets are so big, it's almost impossible to have both accurate planet sizes and distances in one scale model.

How do you make a scale model of a planet?

Use distance markers like cones, ground stakes, or popsicle sticks to mark the locations of the planets at the distances you calculated. Attach drawings or cutouts of the planets to their markers. Use beads and string, sidewalk chalk, or your own creative choice of materials to build a scale model of planet sizes or distances in the solar system.

How can I create a real scale solar system?

Use your large park to create a TRULY scale model Solar System in both size AND scale, something practically impossible in any other venue. It can be elaborate, like in the above picture from the Peoria Riverfront Museum in IL, or just print out the NASA "Planets to Scale PDF," and find some space.

How can we imagine the scale of our Solar System?

The scale of our solar system is difficult to imagine when we are standing on what appears to be a large planet looking at an apparently small Sun. Pictures don't help much. Although we could print the planet sizes

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to scale, the paper would need to be way too large to show the scaled distances.



What is the biggest thing you've ever built? Have you ever tried constructing a solar system model? Join us as we attempt building one to scale, to see just how big our solar system really is. Spoiler alert: it's mind-bogglingly, awe-inspiringly big.



The only way to see a scale model of the solar system is to build one. Welcome to Black Rock Desert. This is Alex, I'm Wylie, he's going to be behind the camera, I'm gonna be probably making a lot of mistakes on camera We have 36 hours to measure the distances, trace out the orbits, and set up a time lapse shot from up on top of a nearby



A solar system model is an effective tool that teachers use to teach about our planet and its environment. The solar system is made of the sun (a star), as well as the planets Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, and Pluto, and the celestial bodies that orbit those planets (like moons).

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If you build your solar system on a roll of toilet paper, you can make the Sun about .4 inches (10 mm) across and still fit the entire solar system on the roll. A standard roll of toilet paper has about 450 sheets that are about 4.375 inches long, hence the roll is about 164 feet long. You should check your toilet paper for length. Some are longer.



us make a scale model of the Solar System. This means that we will be making a mini version of the eight planets, where each one is the right size compared to the others. 3. Use the ruler and mark out 10 equal portions on your Play-Doh (each one will be 3cm wide.) 4. Cut 6 of these sections away and roll them all together. This is Jupiter.



Create a human sized scale model of the solar system with your students. Learning Objectives: For students to develop an understanding of the positions of the planets in the solar system, both relative to each other, and also their position and distance from the sun. For students to gain a

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Using receipt paper, participants make a scale model of the distances between objects in the solar system. They learn that the distance between planets is vast. A training video is included, and materials for this activity are also available in Spanish.



In considering the model of the solar system, did this model show the elliptical orbits of the planets about the sun? Use the same scale for all measurements. The solar system model used two different scales for diameters and distances.



Calculate the scaled planet diameters and planet-sun distances for a solar system model. Enter scale or diameter or distance, select to show table and/or map below, select options, then press Calculate. Examples: Scale 1 : 100000000 or Sun Diameter ???



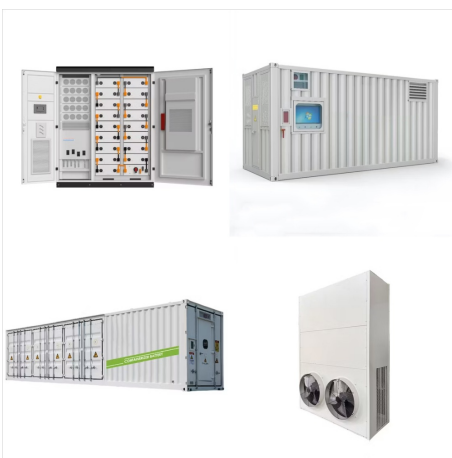
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UAMN Virtual Early Explorers: Solar System Make a Model Solar System Build your own model and discover our Solar System! Materials: Planets: Play dough, clay, small toy balls, or aluminum foil. planets to scale. However, you can use this image as a guide to making your sun and planets about the correct size in relation to each other



The best way to understand the true dimensions of the solar system is to create a scale model. Use the tool below to visualize the solar system at various scales. Instructions. Choose the size of the Sun you want in your model in STEP 1. The dimensions of the other objects and their distances will be calculated automatically.



It is difficult to make a scale model of the solar system for two reasons. One is the size comparisons. Because the sun is more than 100 times bigger than most of the planets, a medium-sized sun

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You will make a model of the solar system. Imagine you shrink the solar system so much that the distance from Earth to the Sun becomes 10 cm. When you shrink the solar system this much, all the planets shrink in size, so they become too small to see. You will add labels so you can remember which planet goes where.



so large. In making a scale model, you need to divide the actual figure by any standard number to make a scaling factor. For example, if the wheels of a model car are 9 cm in diameter, and the wheels of a real car are 72 cm in diameter, then the scaling factor is 72 divided by 9 or 8. The model car is a 1/8-scale model of a real car. Looking at



Scale Model Solar System Purpose: Today you will make a scale model solar system. Every step you take in our model is like walking 10 billion steps in the real solar system. Our scale factor for the model solar system is then 1 to 10 billion (like the scale on a map). The positions of the model planets are based on

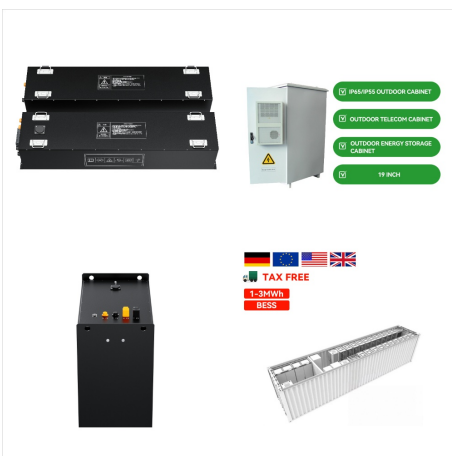
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Make a Solar System on a String (scale distance model) 9. Solar System on the Sidewalk (scale distance and/or size model) 10. Solar System in the Yard (scale distance model) In this project, you will create your own scale model of the ???



Select an outdoor (or very large indoor) location where a large-scale model of the solar system will fit. Determine the scale of your model based on the longest distance available in the space. For best results, create a scale model that is at least as large as 1 au = 150 cm. ???



Purpose: Construct a scale model of the solar system to familiarize the student with the relative sizes and positions of the planets in the solar system and the vast distances between them and between the Sun and other stars. A convenient scale has 1 foot representing 1 million miles. This same scale has 1000 miles representing 1 light-year.

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Solar System models, especially mechanical models, called orreries, that illustrate the relative positions and motions of the planets and moons in the Solar System have been built for centuries. The enormous ratio of interplanetary distances to planetary diameters makes constructing a scale model of the Solar System a challenging task. As



What is a Solar System? A solar system comprises of a star and all the celestial bodies that travel around it - planets, moons, asteroids, comets. Some solar systems may even have two stars. What is a Star? A star is an immense glowing ball of extremely hot gases, mainly hydrogen and helium, where nuclear fusion releases a tremendous amount of



Create a scale model of the solar system with this lesson plan from NASA and the Stanford Solar Center. The lesson begins with an exploration of model cars. Then, students estimate which objects to use to create a scale model of the Sun and Earth. Students learn how to figure out how far to place the model Earth from the model Sun to create a distance that is in scale with the ???



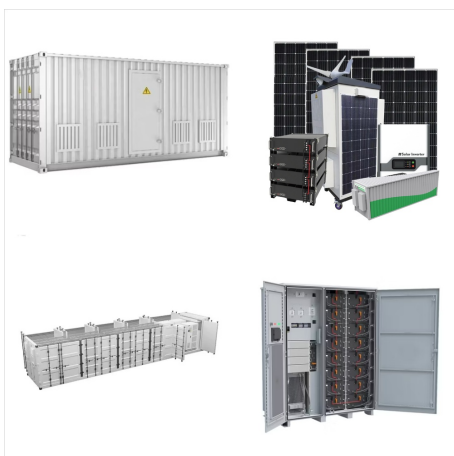
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"Every single picture of the solar system that we encounter is not to scale," filmmaker Wylie Overstreet says in the latest video in the "To Scale" series. "If you put the orbits to scale on a



Students construct -- and where appropriate, calculate -- a scale model of the solar system using beads and string. Students will observe the relative distances of the planets, asteroid belt and dwarf planet Pluto from one another and from the sun; and gain a better understanding of the vast distances between planets in the outer solar system compared with those in the inner solar ???



To create a scale model in a room or school yard that could include all the planets, the scale would have to be much bigger, making the planets much smaller ??? sometimes the size of sand grains Skills. Creating a scale model Estimating and Measuring distances Reading a map Understanding the scale of the solar system and the sequence of the

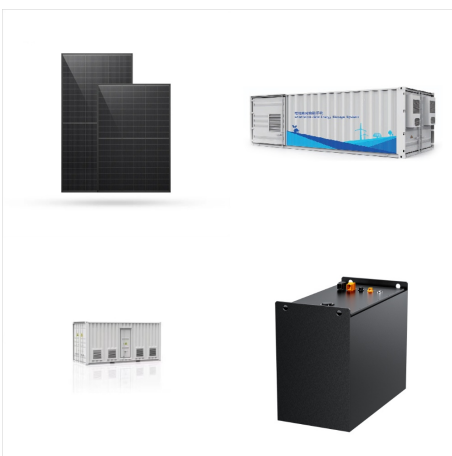
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Examine pre and post drawings to evaluate learning. Students should be able to identify the major parts of the solar system. Extensions. Have students predict solar system scale using this activity. Have students make a scale model of the solar system using string and beads. Have students investigate planetary features using art.



The goal of this project is to make a scale model of the solar system, including the Sun and at least eight major bodies. If you're not sure what this means, look on-line for some of the many models other people have made; for example, the Voyage Scale Model Solar System in Washington, DC. As we discussed in class, space is really, really big.



??? For members only, see a Solar System and Beyond ebook example, and the Scale Solar System Display Case Examples. ??? With more time, you can preface a scale model Solar System with a scale model student drawing activity. Have students measure themselves (partners really help) with meter sticks/tape measures, and do some simple math to

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In this activity, students use scale, proportion and/or ratios to develop a scale solar system calculator. Using spreadsheet software, students will determine the size of and/or distances between planets on a solar system model that fits on a playground. Materials. Example not-to ???



The other model is designed for a larger space, and has Saturn out at 330 feet (100 meters), Jupiter at 180 feet (55 meters), and Pluto at 1360 feet (414 meters). While showing the full solar system at this scale may not be practical due to space limitations, it is the minimum size that shows all the planets at a size of at least one pixel.



Astronomy is a subject that often fascinates students of every age. The solar system is very spread out, which makes accurate scale models difficult to draw. Planets such as Jupiter are 1/10 the size of the sun, but Earth is 1/100 the size of the sun. With the right materials it is possible to draw a fairly accurate scale model of the solar system.