



## SCALE IN THE SOLAR SYSTEM

**We all know that space is vast, right?** But just how big are those distances in our solar system? Let's just say that every poster you've ever seen that tries to depict our solar system is way, way, way out!

Not only are the planets, and the sun, very different in size (the inflatable models in the photo – Mars, Jupiter and Uranus – are definitely not to scale), but the distances between the planets are huge! To say that Earth is about 151 million km from the sun sounds impressive, but how do we begin to imagine such huge distance? When you consider that it actually takes around eight minutes for the sun's light to reach us, that gives you some idea.

Another way to demonstrate this is by trying to build a scale model, which is exactly what the Year Five students did this week. In our models, the sun was made the size of a golf ball. On this scale the Earth was the size of a grain of sugar and was 4 metres away. Neptune, our most distant planet, was the size of a cake sprinkle and was a whopping 129m away from the golf ball-sized sun (actual distance of 4 500 000 000 km). When you think that our solar system is just one tiny part of a galaxy of billions of stars and that our galaxy is just one of many billions of galaxies, you might start to feel pretty small indeed!



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