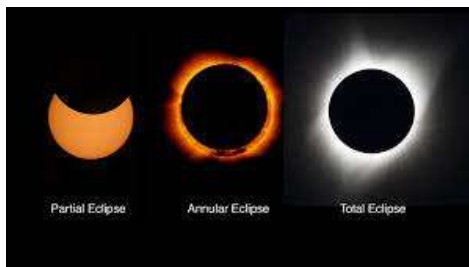




You Are Here

Wonder about distance and time.

For many years, humans thought that they were at the centre of everything, here on earth. The 'universe' revolved (rotated/spun) around us, in our consciousness or thoughts. In different cultures, some of their worship and actions were thought to actually MAKE things happen. EG: American Indian rain-dance, 'Haitian' Voodoo Doll magic, & terrible dances to bring back the sun - during what we NOW understand are Solar-eclipses: Where the moon covers the sun.



Some cultures even thought that the **setting** sun, went 'plop-sizzle' into the ocean, or whatever they could see it **setting** into in their west. Only to be reborn the next day, out of whatever they see the sun arise from in their east. Stonehenge & many ancient structures helped tell the time & seasons: '**Setting**' when to plant crops & for tribes to 'make babies' perfectly timed, for bountiful harvests of food, to be ready when there were more mouths to feed.

We discovered more recently that we are on 'The 3rd Rock from the Sun'. (The name of a funny television sit-com series. Sit-com means 'Situation-Comedy'. Whereas a Rom-Com, is a 'Romantic-Comedy'.) This article Wonders about all the BIG DISTANCES & TIME involved, & how little we see from our little spot in space. So astronauts have to think hard about leaving their families, as it might not be a comedy/funny – to be away from home for such a long time!

So we first consider that: Earth is ninety three million (93,000,000) miles from the Sun. Yet we need to wear Sun-cream to protect us from sunburn, or even worse: **Skin-cancer caused by radiation, making our very own cells turn against us and grow crazy fast.** So we Teachers, **remind students to wear their hat outside** for recess, lunch & while going home in summer months ... because we care! Yet it takes about 8 minutes for that sun-ray, to come all the way, from the sun to earth through very cold space.

Note: one percent (1%) is easy maths: Just move the decimal point place two zero's to the left, and you get 930,000 miles. (Miles is what I was taught when I went to school, & these numbers are easier to remember for this article. Otherwise: just convert.) **So consider:**

Q.2. How would the earth be if it was 1% CLOSER to the Sun? We would need to wear space-suits, or buy some of those clothes the Muslims already use: many come from very hot places. Except very hot places, are often icy-cold at night. Astronaut spacesuits adjust their body temperature, warming them up when they are in the shadow of the earth or space station. Then when they come out from the shadow ... comes the '**whack-in-the-face**' heat and blinding brightness. My glasses go dark quickly whenever I go outside. Welder's goggles/face shields go dark in milliseconds – so the workers don't go blind from the melting metal and electricity sparking during welding! My high school welding = we had to aim>goggle-on>strike - to see it!



The 2nd rock from the Sun = Venus, is hot. Apparently mythology suggests 'Women are from Venus' ... because the early 'symbol or icon' used for Venus was also used for women. **Venus is 25 million miles away from Earth.** So children are usually 'closer to their mother ... than their fathers' = just like Venus compared to Mars, ha! Mothers care for us and keep us close ...

...whereas dads often have to go far away for work & come home tired. So children feel dads are 'cold' (attitude) & 'distant' (not much time to give) as it gets closer to children's bed time.

Q.3 How would the earth be if it was 1% FURTHER from the Sun? The 4th rock from the Sun = Well, no life yet discovered on Mars. Mars, is cold, & ancient mythology suggests 'Men are from Mars.' Yep, you guessed it the icon for men is the same as for Mars. So, getting us humans together on earth is '**just right**' ... like the **porridge** in the Goldie-Locks story. Remember the golden coloured-hair girl & the three bears - in the nursery rhyme. Scientists used this familiar '**Just Right**' idea to explain their complicated '**Habitable Zone**' (Habitat-able-area/place/zone) for life to **exist** (live) just like we know it. Another article, Wonders about - 'other life forms!'



On average, Mars is 140 million miles away from Earth. That means we are closer to the Sun than this neighbouring planet. So when you look at this picture of all the planets: they are placed so they fit on the one page. It DOESN'T give you any idea of the distances involved. (Notice that Pluto is now NOT included because it is too small, oh how sad...for all the trees...when we reprinted all the textbooks!)

The Voyager 2 spacecraft has only just now, reached the bubble-of-influence that the sun has on all the planets & things INSIDE our own solar system: It was launched by NASA in 1977, to study the outer planets & only NOW the interstellar space beyond the Sun's heliosphere. The probe entered interstellar space in 2018, at a distance of 11.1 Billion miles from the Sun.

SO MORE MATHS:

TIME: 2018 minus 1977 = 41 years, to ...

TRAVEL: 11.1 Billion miles minus 93 Million = 11,007,000,000 miles. (Not including speed-up-loops.)

SPEED: Distance over Time = 268,463,415 miles per year average. (Speed-up-loops => acceleration.)

The speed of light (+article) in a vacuum is 186,000 miles per second. So the Sun's light took 17 hours to reach this definition of the Heliosphere. OUR CRAFT took 41 years. But light continues on into infinity...since we also see the light from other stars. How long would it take our sun's light to get to Alpha Centauri, the closest star? Equals: 4.4 light years (Light-Speed-Years)

However, how old are your textbooks? The OLD UK (England, etc) meaning of a billion was a million million, or one followed by twelve noughts (1,000,000,000,000). The USA meaning of a billion is a thousand million, or one followed by only (1,000,000,000) nine zeros. (See=Less) UK statistics NOW use the US term billion being the SAME: a thousand million = 1,000,000,000.

A simple look at these '**astronomical distances**' may make space travel a one-way-journey. (*Sorry Darling!*) The movies show people being put into sleep-mode, but we are only guessing how to do that. **Laugh with me now, at how small & ridiculous is the BIG** sounding term: "**An Astronomical Unit**" which is the average distance from the **Earth to the Sun**. It is about 93 million miles, and "**is used to measure relatively SHORT (what!?) distances,**" such as those between the Sun and its planets, or between the stars in a binary system. *Those funny scientists!*

On 14 July 2023 we were up-dated that "The Universe May Be Twice-as-Old as We Thought" — Most astronomers believe the universe is 13.7 billion years old. A new study says, that figure could be closer to 26.7 billion. A universe, expanding for longer, will be ... therefore, **BIGGER!**

Maybe Mars might one day invade Earth = that's possible! Considering the distance involved. But Aliens from distant stars, or even further away, other galaxies: well, we are STILL WAITING! Earthlings (Earth-lings = stuck-on-this-dirt-planet-people) haven't even gone back to our Moon. **Maybe annoyed women dream about ... 'men returning' to Mars ... one way!**