Our Solar System

Our model will give you a unique perspective on the Solar System because it is scaled accurately to both the **Sizes** of the Sun and planets, and their **Distance** from each other.

Our **Sun** is a mid-sized, middle aged star among hundreds of billions in our galaxy, the Milky Way. There are roughly 100 billion known galaxies. Our model **Sun** is located just outside the Gym, on the meadow side of the Boathouse cabin.

The Journey Begins

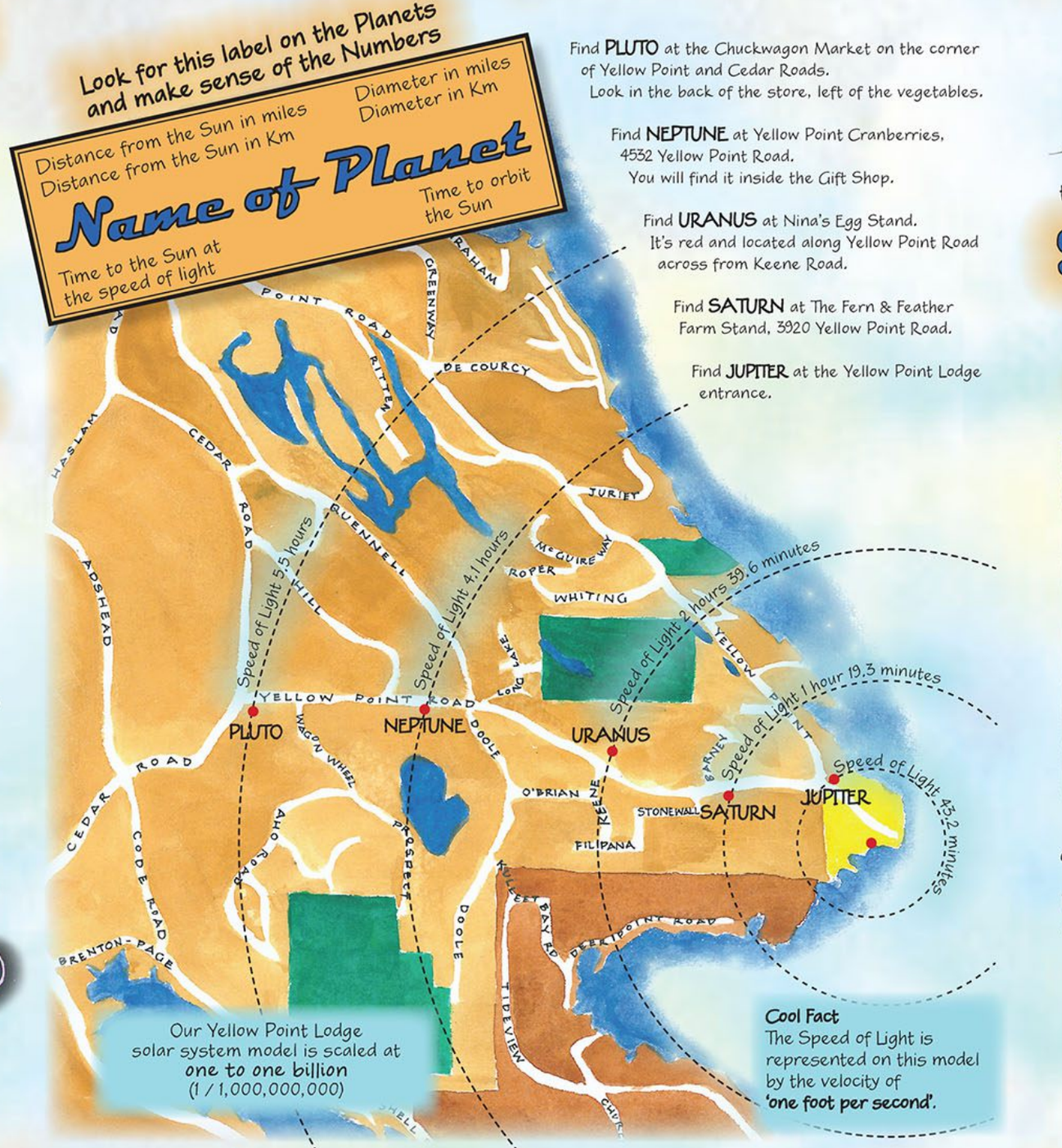
From the **Sun**, head up towards the driveway, and left towards the main gate. You may wish to run, bike or drive to see the last planet, Pluto (we're keeping it.)It is located over six kilometers away.

Check these websites out if you want to expand your knowledge of the cosmos.

NASA - www.nasa.gov
Space Facts - www.space-facts.com
National Geographic - http://science.nationalgeographic.com/science/

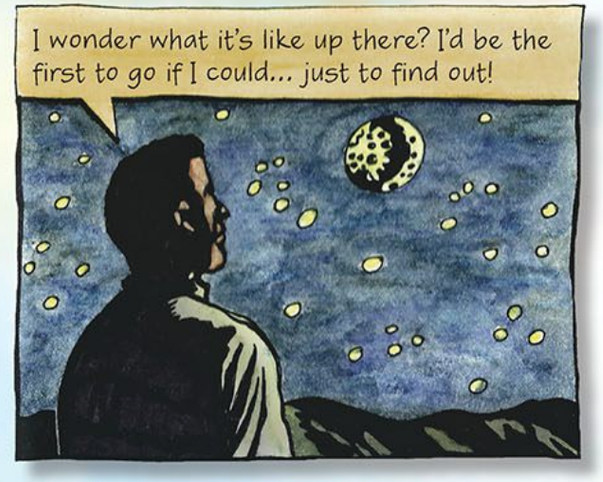
A Big Sky Fan

A generous bequest from a very long standing guest & good friend, **Mr. John MacDonald, P.Eng** helped make this solar system model a reality.



Enjoy a walk, bike or drive through the property and neighborhood on our

Journey Through The Solar System



An accurately scaled model of our home star system with the sun located at **YPL**

Visitors to the property are requested to check in at the main office before they start their journey.

Yellow Point Lodge
3700 Yellow Point Road
Ladysmith, BC Canada V9G 1E8
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Distances from Sun are in millions of kilometers or miles.
Illustrations of planets are not to scale.

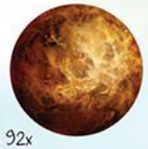
SUN

Diameter = 1,391,684 km (864,776 miles)
The Sun is almost a perfect sphere with only a 10km (6.2 miles) diameter difference between the poles and the equator. Light from the Sun takes 8 minutes to reach Earth. The Sun converts 600,000,000 tons of Hydrogen to Helium through nuclear fusion every second. At around 4.5 billion years old the Sun is middle aged and has enough Hydrogen left to burn for another 5 billion years.

MERCURY

Diameter = 4,879km (3,032 miles)
Distance from Sun varies due to orbit eccentricity = 46km (28.5 miles) to 70km (43.5 miles)
Orbital period around Sun = 88 days
As the planet closest to the Sun, the surface temperature of Mercury fluctuates between 427°C (800°F) and -173°C (-279°F). The surface is covered in "wrinkles" called Lobate Scarp up to a mile high and hundreds of miles long.

VENUS



Diameter = 12,104km (7,521 miles)
Distance from Sun = 108.2 km (67.2 miles)
Orbital period around Sun = 224.7 days
Venus is the second brightest object in the night sky after our moon. The atmosphere is 92x denser than Earth. Meteors entering the atmosphere are crushed, resulting in no impact craters on the surface.

EARTH

Diameter = 12,756 km (7,926 miles)
Distance from Sun = 149.6 km (93 miles)
Orbital period around Sun = 365.2 days
The only planet not named after a Roman god. Earth's surface temperature fluctuates between -88°C (-112°F) and 58°C (136°F). Once believed to be the centre of the universe, we thank Copernicus for setting the record straight.

MARS

Diameter = 6,792 km (4,221 miles)
Distance from Sun = 227.9 km (141.6 miles)
Orbital period around Sun = 687 days
Mars is home to the tallest mountain in the solar system, a shield volcano called Olympus Mons. Dust storms are a reality on Mars. They can last for months and cover the entire planet. This is due to its elliptical orbit path which causes extreme seasons.

Look for this label on the Planets and make sense of the Numbers

Distance from the Sun in miles
Distance from the Sun in Km

Diameter in miles
Diameter in Km

Name of Planet

Time to the Sun at the speed of light

Time to orbit the Sun

The speed of light is **186,000 miles** or **330,000 km per second**. That will take you to Newfoundland in 1/60th of, or around the world at the equator **ten times, in one second.**

The speed of light is represented on this YPL solar system model by the velocity of **one foot per second.**

At this scale, our next door neighbour star (Proxima Centurai) would be located in Duncan, after going around the world once. Traveling at the **speed of light**, it would take over **four years** to get there.

"Impressive"
Bob McDonald, host
CBC Quirks and Quarks

Our Yellow Point Lodge **solar system model is scaled at** one to one billion (1 / 1,000,000,000).

Handcrafted planet models **donated** by **JoVic Pottery, jovicpottery.com**

Display stands by John at **schwarzefab.com**

Brochure by **Visual Life Stories**

JUPITER

Diameter = 142,984 km (88,846 miles)
Distance to Sun = 778.6 km (483.8 miles)
Orbital period around Sun = 4,331 days
Jupiter wins the most moons contest with 67! Ganymede moon is the largest in the solar system and is bigger than Mercury. The great Red Spot on Jupiter is a huge storm that has raged on for 350 years and is so big that three Earths could fit inside it.

SATURN

Diameter = 120,536 km (74,897 miles)
Distance to Sun = 1,433.5 km (890.8 miles)
Orbital period around Sun = 10,747 days
Saturns rings are made up of chunks of ice and carbonaceous dust. They stretch 120,700km (75,000 miles) from the planet and are only 20 metres (65 feet) thick. Four spacecraft have visited Saturn - Pioneer 11, Voyager 1 and 2 as well as the Cassini-Huygens mission which continued to orbit, sending back information for years.

URANUS

Diameter = 51,118 km (31,763 miles)
Distance to Sun = 2,872.5 km (1,784.8 miles)
Orbital period around Sun = 30,589 days
Referred to as an ice giant, Uranus is one of the coldest planets with an average surface temperature of -197°C (-322°F). There are two sets of rings, one first discovered in 1977 and second set discovered by the Hubble Space Telescope in 2003.

NEPTUNE

Diameter = 49,528 km (30,775 miles)
Distance from Sun = 4,495.1 km (2,793.1 miles)
Orbital period around Sun = 59,800 days
Neptune has 14 moons and yes it has rings. The smallest of the ice giants, Neptune has an very active climate with large storms whirling around it's upper atmosphere. Winds can track around the planet at 600 metres (1,969 feet) per second. The largest storm ever recorded lasted five years and was called the Great Dark Spot.

PLUTO

Diameter = 2,390 km (1,485 miles)
Distance to Sun = 5,870.0 km (3,647.2 miles)
Orbital period around Sun = 90,588 days
Pluto is a minor planet and we are keeping it due to it's past service. Pluto is located in the Kuiper Belt an area of the outer solar system made up of small solar system bodies that are mostly ice. This area is home to other dwarf planets such as Haumea, Makemake, Quaoar, Ixion and Varuna. Together with Pluto these are known as the Trans-Neptunian Objects. The first mission to the Kuiper Belt arrived in July 2015.