SASTA OLIPHANT SCIENCE AWARDS

Prize Winner

Science Writing

Year R-2

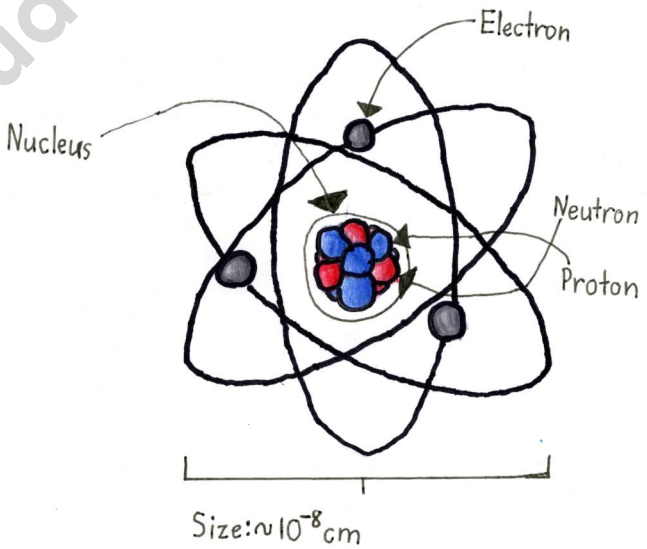
Ivan Leong

St Andrew's School

Physics: the very tiny and very large!

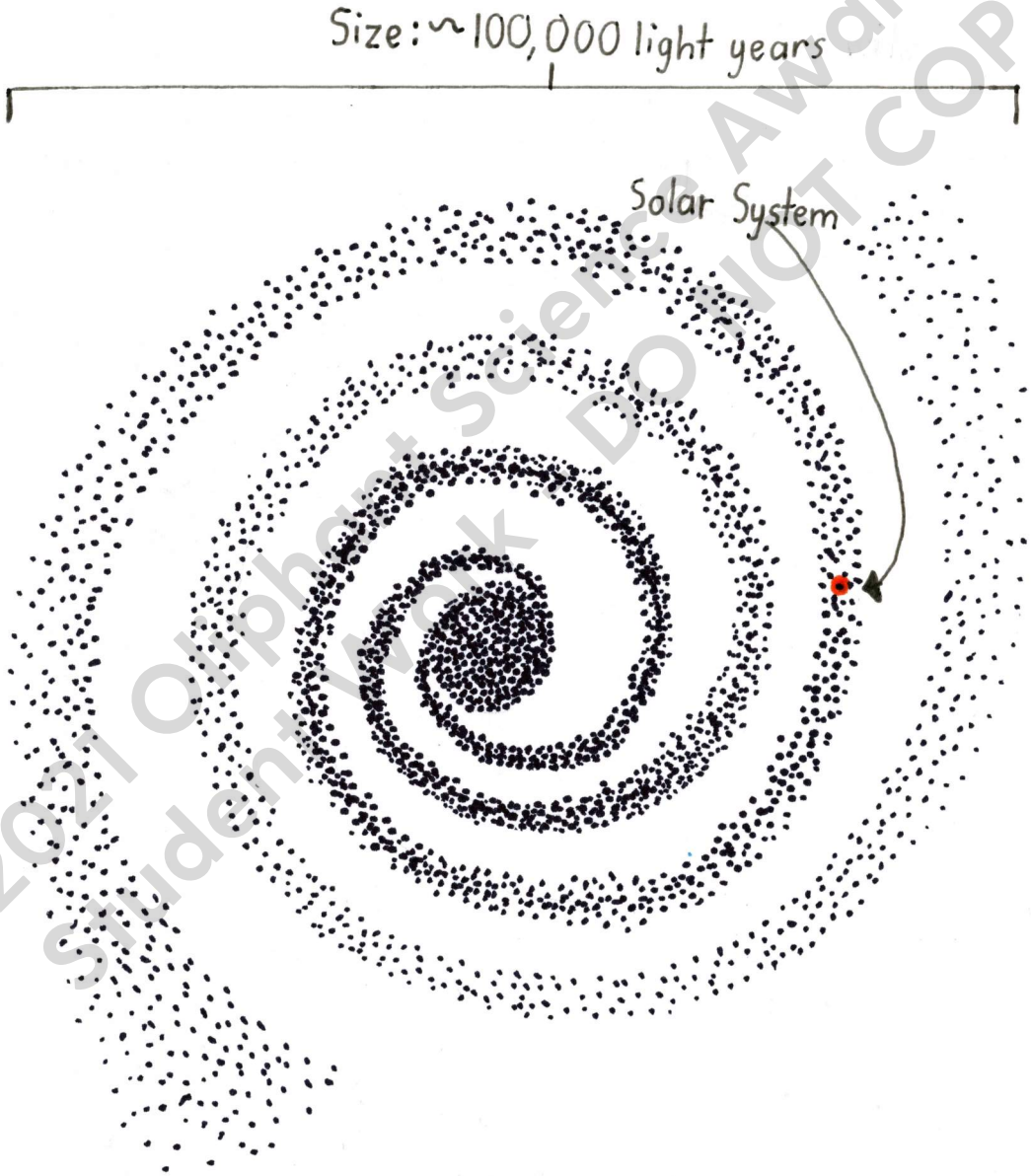
The amazing world that we live in all began with the Big Bang! It started 13·8 billion years ago from an infinitely tiny point so small but with such immense energy that expanded into our massive Universe today.

After the Big Bang, very tiny elementary particles such as electrons, quarks and anti-quarks formed. As the Universe cooled down, the quarks formed neutrons and protons, which later joined to become atomic nuclei. Eventually, the atomic nuclei combined with electrons to form stable atoms to create hydrogen and helium. These are the very first atoms in the Universe!

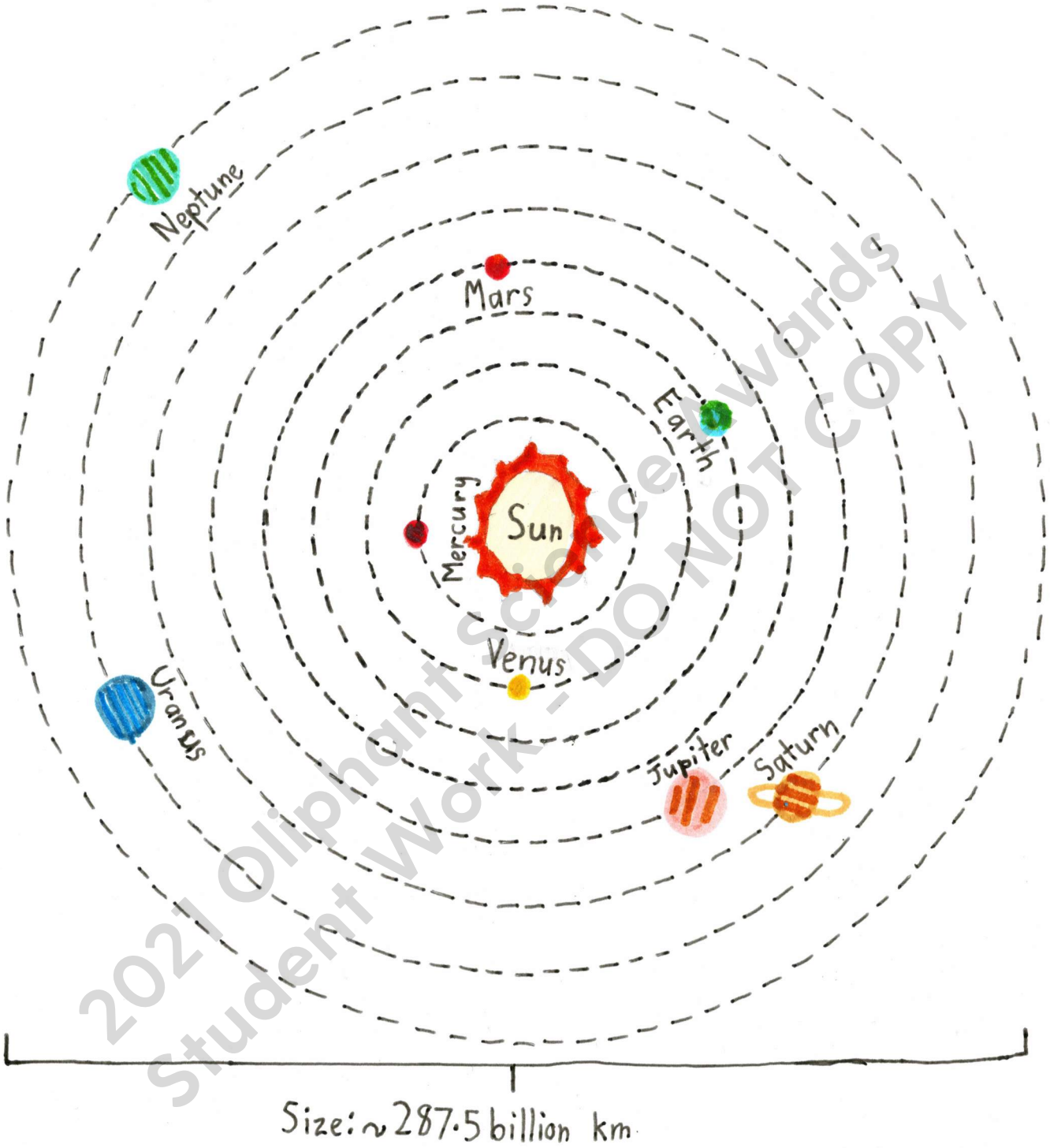


Atom-The Basic Element of Matter

As the Universe continued to expand, gravity pulled gas clouds together forming galaxies, including the Milky Way where our Solar System is located.



The Milky Way



Solar System

Our Universe has today expanded from a tiny point to a massive 93 billion light-years. One day, our Universe may end when it either expands too large or collapses back into a tiny point. However, this will unlikely happen in billions of years' time. So, let us continue to live well and love our home the planet Earth.

The Planet Earth

[191 words]

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