Annual Celebratory Days for Scientific Awareness

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EXECUTIVE SUMMARY

There is an extreme lack of understanding of science among much of the public. This has many negative repercussions with people denying climate change, believing the earth is flat, thinking that COVID-19 is a hoax, etc. To increase awareness of science and get people interested in studying science, this chapter proposes 17 new annual celebratory days for frequently-used fundamental physical constants. Also, this chapter describes six annual celebratory days previously proposed in publications by Ashu M. G. Solo for increasing awareness of science, especially greenhouse gas emissions that are increasing the severity of climate change.

INTRODUCTION

There is a stunning lack of scientific awareness among the general public. Countless people think climate change is a hoax, the COVID-19 pandemic is a hoax, the earth is flat, unhealthy foods are healthy, healthy foods are unhealthy, etc. To increase awareness of math and science, there are several annual celebratory days for mathematical and physical constants.

Pi Day is celebrated annually on March 14 in honor of the frequently used mathematical constant 3.14. March 14 expressed numerically as 3/14 looks similar to 3.14.

Mathematicians celebrate e-Day annually on February 7 in recognition of the frequently used mathematical constant *e,* which is equal to 2.718. February 7 expressed numerically as 2/7 looks similar to 2.7.

Chemists celebrate Mole Day annually on October 23 from 6:02 AM to 6:02 PM in honor of Avogadro's number (6.02×10^{23}), which is a basic measuring unit in chemistry. 10/23 from 6:02 AM to 6:02 PM corresponds to $6.02 * 10^{23}$.

The author of this chapter, Ashu M. G. Solo, previously proposed Nitrous Oxide Day on February 17, Carbon Dioxide Day on May 18, Methane Day on June 5, Tropospheric Ozone Day on June 7, Standard Gravity Day on September 8, and Light Speed Day on October 8 to increase awareness of greenhouse gases, gravity, and the speed of light. After describing these annual celebratory days and how dates were assigned for them, this chapter proposes 17 new annual celebratory days for scientific awareness.

STANDARD GRAVITY DAY AND LIGHT SPEED DAY

The author of this chapter, Ashu M. G. Solo, previously proposed (Solo, 2016; Solo, 2018a) that Standard Gravity Day be celebrated annually on September 8 in honor of the frequently used standard acceleration due to gravity (abbreviated as standard gravity), 9.8 meters per second squared (m/s^2), which looks similar to 9/8.

The author of this chapter, Ashu M. G. Solo, previously proposed (Solo, 2018b; Solo, 2018c) that Light Speed Day be celebrated annually on October 8 from 3:00 AM to 3:00 PM to commemorate the frequently used constant for speed of light in a vacuum, $c = 3 * 10^8$ m/s. 10/8 from 3:00 AM to 3:00 PM corresponds to $3 * 10^8$ m/s. This uses the same date and time format as Mole Day.

GREENHOUSE GAS DAYS

The four worst greenhouse gases emitted from human activity that cause climate change are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and tropospheric ozone (O_3). The author of this chapter, Ashu M. G. Solo, previously proposed (Solo, 2020) four new annual days to bring awareness to each of these greenhouse gases and to cause people and organizations to reconsider their activities that are causing emission of these greenhouse gases.

The atomic number of a chemical element is the number of protons in the nucleus of each atom of that element. The atomic number uniquely identifies each element. In the periodic table of elements, elements are arranged from left to right and top to bottom in order of increasing atomic number.