

SCIENCE CENTRE NEWS LETTER

February 2016
Issue 10



Published by
Milind Torawane
I.A.S.
Municipal
Commissioner

Editor

C. Y. Bhatt
Dy. Municipal
Commissioner

Sub Editor

Bhamini Mahida
Chief Curator

Divyesh Gameti
Curator (Science)

Co-ordinator

Dr. Pruthul Desai
Principal
P. T. Science College



SCIENCE CENTRE

Volume 1, Issue 10

WHAT'S NEW IN SCIENCE

4 New Super heavy elements Land on periodic Table

Four new elements will join on the periodic table of the elements, the International Union of Pure and Applied Chemistry (IUPAC) announced in the last week of December. The last time the venerable Chemistry mainstay added new elements to its roster was in 2012, When elements 114 and 116 got the names flerovium and livermorium respectively which is in the Seventh row of the periodic table. Researchers created the new elements in a Lab and then verified that the production could be reproduced. But don't expect to find these element in nature; Scientists produced these " Super heavy" elements which all



has the atomic number greater than 104- by blasting beams of heavy nuclei at other nuclei inside particle accelerators.

Right Now, the elements names and symbols are- for element 113 by ununtrium (UUT) and for element 115 by ununpentium (UUP).

The RIKEN collaboration team in Japan Created element 113, while 115 and 117 were produced at the joint Institute for Nuclear Research in Dubna, Russia; Lawrence Livermore National Laboratory in California; and Oak Ridge National Laboratory in Tennessee.

SCIENTIST OF THE MONTH

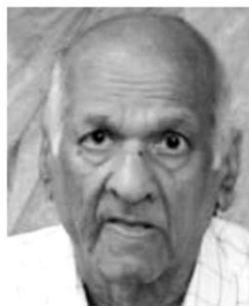
Prof. K. R. Ramanathan

Professor K R Ramanathan was born on February 28,1893 in Kalpathi village in Palghat district of Kerala. His full name was Kalpathi Ramkrishnan Ramanathan. He Joined victoria College at palghat for his intermediate Studies. Later, he joined the Presidency college in Chennai(Madras) to complete his graduation in physics, in 1914 and Post-graduation in 1917. During his job as demonstrator at the physics department of the Maharaja College in Thiruvananthapuram. he had trekked the Nilgiri Mountains and weather observations were noted at different heights upto 1800 metres. he had gathered reports of rainfall in different parts of Thiruvananthapuram.

Prof. C V Raman's work impressed him. The discoverer of the Raman effect, C V Raman Considered Ramanathan as his first lieutenant. Raman effect was announced on

February 28,1928 in kolkata. Prof Ramanathan's birthday also falls on the same day. The Government of India has declared February 28 as National Science Day. He got a job at Myanmar's(Burma's) Rangoon University as assistant Lecturer in Physics. Then he was invited by the Indian Meteorological Department to join as Scientist. During world war II , he appointed as Superintending weather Scientist. For his excellent services, the British government honored him with the title Diwan Bahadur. In 1960, he honored fellowship by Royal Meteorological Society.

The Government of India honored him with the Padma Bhushan in 1965 and the Padma Vibhushan in 1976. In 1977, the National Science Academy awarded him the Aryabhath Medal. In 1985, at the age of 92 he, died after a brief illness.





Timings

Tuesday to Friday
9.30 am to 4.30 pm

Saturday - Sunday
& Public Holidays
9.30 am to 6.30 pm

Address

Science Centre
City Light Road,
Surat - 395 007

Contact

0261 - 2255947
+91 97277 40807

Fax No.
91-261-2255946

E mail
sciencecentre@suratmunicipal.org

Web Site
www.suratmunicipal.gov.in



SCIENCE FACTS FEBRUARY 2016

2 Feb	World Wetlands Day (recognized by U.N.).
4 Feb	World Cancer Day (recognized by U.N.).
5 Feb 1971	American Space Craft 'Apollo 14' landed on moon.
6 Feb	International Day against Female Genital Mutilation.
8 Feb 1834	Dimitri Ivanovich Mendeleiev (Formulator of Periodic Table) was born on this day.
11 Feb 1847	Thomas Alwa Edison (Inventor of Dynamo) was born on this day.
12 Feb 1941	Sir Alexander Fleming did first experiment of Penicillin.
13 Feb	World Radio Day (UNESCO)
14 Feb 1929	Devendra Lal (Vise President of Indian Academy of Science and Ex-Director of PRL) was born on this day.
15 Feb 1564	Galileo Galilee (Famous Astronomer) was born on this day.
16 Feb 1919	Jyoti Bhushan Chetarjea (Discoverer of Haemoglobin-E) was Born on this day.
18 Feb 1745	Alessandro Volta (Inventor of Electric Battery) was born on this day.
19 Feb 1473	Nicolaus Copernicus (Famous Astronomer) was born on this day.
20 Feb	World Day of Social Justice (recognized by U.N.)
20 Feb 1962	John Glenn the first American Astronaut to orbit the Earth.
21 Feb	International Mother Language Day. (UNESCO)
24 Feb 1940	Sengamedu Shrinivasa Badrinath (Specialist in Vitreo Retina Surgery) was born on this day.
25 Feb 1988	First successful test fire of "PRUTHVI - 1 MISSILE" by India was done on this day.
28 Feb.	National Science Day is celebrated in India to mark the discovery of the "Raman effect".y.

U.N. : United Nation

UNESCO - United Nations Educational Scientific & Cultural Organization

Quiz Answer : (1) D (2) B (3) C (4) A (5) B (6) D (7) A (8) C (9) B .

KNOW THE EXHIBITS AT FUN SCIENCE GALLERY

Acrobatic Stick

Is it possible for a straight stick to pass through a curved slit? Press the button and observe the stick held at an angle and rotated the axis. Generates a three-dimensional surface which is a hyperbola (like the shape of the traditional cane seat that is formed using straight stick only). The curved slits through which the metal stick passes are in the form of a hyperbola. This form is obtained by the intersection of the hyperboloid

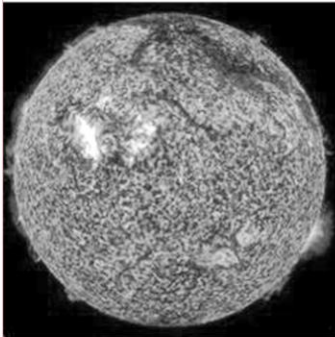
with the plane transparent surface at the middle.



SCIENTIFIC QUESTION

What is Energy? and forms of Energy?

Energy is the ability to make things happen and cause changes. It exists in



many forms, Such as Sound, light, electricity and chemicals. Moving objects also possess a type of energy, kinetic energy. Using energy and principles of mechanics, and movement, we combine simple machine. Such as levers and wheels, into enormously complex ones.

you can't see energy. you can't touch it or hold it in your hand. But energy is

everywhere. Energy is the ability to do work, to make things happen, and to cause changes. There are many different types, or forms of energy. A hot drink has heat energy. A racing car speeding around the track has movement energy, which is also called kinetic energy. Even a book lying on a shelf has energy. Because of its position and the pull of gravity, it presses down on the shelf. This type of energy is called potential energy.

FORMS OF ENERGY:

Chemical Energy, Contained in atoms and molecules.



Kinetic Energy, in moving objects.

Potential Energy, Form an object's position.



Sound Energy, when atoms or objects vibrate.

Nuclear Energy, when atoms join or split apart.

Electrical Energy, from moving electrons.

Magnetic Energy, due to magnetic attraction.

Electromagnetic Energy, in the form of various kinds of rays or waves. These include radio waves, microwaves, heat light, x-rays and gamma rays.

1. what does this statement define-the rate of change of position in a fired direction.

- a) velocity b) acceleration c) momentum d) speed

2) The high pitched cries of a bat are above human hearing.

- a)True b)False

3)The presence of charge on a substance can be confirmed by a

- a) ammeter b) thermometer c) electrode d) gold leaf electroscope

4) light travels in a

- a) circular path b) hyperbolic path c) parabolic path d) straight line

5) A freely suspended magnet always aligns itself along the..

- a) east west axis b) west south axis c) east south axis d) north south axis

6) which of the following is not a good heat insulator ?

- a) wool b) Iron c) Feathers d) wood

KITE EXHIBITION

Science Centre Surat had organized kite Exhibition at First floor of Museum from 7-1-2016 to 17-1-2016. In this exhibition information about history of kite, science behind kite, kite making, international kite festival etc. were displayed. Different types of kites having different size were display students from various school of surat.



SCIENCE CENTRE

Science Centre forms the main part of the entire complex; it displays thematic galleries in the field of Science and Technology. The ground floor of Science Centre showcases 3D Theatre and Souvenir Shop. The first floor of Science Centre showcases Fun Science Exhibits and Second floor of Science Centre showcases Diamond Gallery where as Entering into space, Textile Gallery, Power of Play Gallery, Cosmos Gallery and Polar Science Gallery are under development.

3d Show	Tuesday to Friday (Time)	Saturday, Sunday & Holidays (Time)
English	09:15, 11:20, 12:00, 02:40, 04:00	09:15, 11:20, 12:00, 02:40, 04:00
Hindi	10:00, 10:40, 12:40, 01:20, 02:00, 03:20	10:00, 10:40, 12:40, 01:20, 02:00, 03:20, 04:40, 05:20, 06:00
Science Centre + Planetarium + Museum + Diamond Gallery		Planetarium
Above 18 Years	Rs. 100	Tuesday to Friday
3 Years to 18 Years	Rs. 65	Saturday, Sunday & Public Holidays
Science Centre + Museum + Diamond Gallery		09:30 to 10:20 English
Above 18 Years	Rs. 60	10:30 to 11:20 Gujarati
3 Years to 18 Years	Rs. 40	11:30 to 12:20 Gujarati
Science Centre + Planetarium + Museum + Diamond Gallery + 3D Show		12:30 to 01:20 English
Above 18 Years	Rs. 120	01:30 to 02:20 Hindi
3 Years to 18 Years	Rs. 80	02:30 to 03:20 hindi
Planetarium		03:30 to 04:20 Gujarati
Above 18 Years	Rs. 50	04:30 to 05:20 English
3 Years to 18 Years	Rs. 40	05:30 to 06:20 Gujarati
3D Show		
Above 18 Years	Rs. 60	
3 Years to 18 Years	Rs. 40	