Editorial

Dear Vipnetians,

Greetings from Vigyan Prasar. There were several impediments and hence the delay in presenting the newsletter. It forces us to combine couple of issues to matchup with time, namely of June-July 2014. We are bound to bring the periodical on time, however, I am sure you have your understanding and will excuse us. As discussed in the previous issue, now onwards the newsletter will not just be informative with a wide spectrum of articles but interactive with your active contributions.

Interactions and experience revealed that most of our club members do not get a chance to visit the science centres or museums. The basic reason for it is non existence of such facilities in their vicinity. Nevertheless, even if one gets a chance to visit, time is never sufficient to understand / interact with each of the exhibits. How will you get a chance to develop your own exhibit, under such challenges? This issue provides such an opportunity. It presents an activity to design an upward rolling cone and the reason for its anomalous behaviour! The contents of this issue also help to understand the Microwave Oven, compounds that are biologically active and others in our ecosystems and exploring the nature. The scientific principles are explained and coupled with puzzles and fun activities for our young readers. These include “Did you Know?” and Rasta Dhundo columns, etc.

Through this, I urge the coordinators and member of the VIPNET to take maximum benefits of the newsletter. You can grab the resource material through solving, resolving and analysing the content of the articles and columns. The last page reports our active members from Bagpat (UP), Sitamarhi (Bihar), Durg (Chattisgarh), Assam, AP, Tamilnadu and Punjab highlighting their activities through Club Speak. We are looking forward to increase the Club Speak content. No doubt this responsibility lies on your shoulders and we wish to receive enthusiastic and growing response for the same.

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The whole purpose of education is to turn mirrors into the windows.

Sudney J. Harris
Editorial
प्रिय विपनेत सदस्यों,
विज्ञान प्रसार की ओर से भविष्यवाण। कई बाधाओं के कारण विज्ञान न्यूजलेटर को प्रकाशित करने में देर हो गई। इस वक्र रूप से हमें कुछ अंकों जैसे जून-जुलाई 2014 को एक साथ प्रकाशित करना पड़ा ताकि हम समय पर इसका प्रकाशन कर सकें। समय पर इस समाचार पत्र को प्रकाशित करने के लिए हम वाध्य हैं और इसके लिए हमें खेंच है।
जैसा कि पिछले अंक में चर्चा की गई थी कि अब से यह न्यूजलेटर विकितापूर्ण लेखों से न केवल युक्त होगा बल्कि आपके सक्रिय योगदान से परस्पर संवादात्मक भी होगा।

आपसी बातचीत और अनुमोद के माध्यम से हमें पता चला है कि हमारे क्लब के बहुत से सदस्यों को विज्ञान केंद्रों या संगठनों की यात्रा करने का अवसर ही नहीं मिलता है।
इसके पीछे मुख्य बज़ार उनके आस-पास के क्षेत्रों में इन सुविधाओं का न होना है। इतना ही नहीं, यदि किसी को अवसर मिलता भी है तो उनके पास प्रदर्शनों को समझने या किसी से बातचीत करने का पर्याप्त समय नहीं होता है। इस तरह की चुनौतियों के बावजूद आपको अपनी खुद की प्रदर्शनी विकसित करने का अवसर यह अंक प्रदान करता है।
यह अंक एक ऐसी गतिविधि प्रस्तुत करता है जिसमें आप ऊपर की ओर घूमते हुए शंकु का और इसके विषय व्यवहार को समझना का डिजाइन बना सकें। इस अंक में छह लेख आपको माइक्रोवेव आवश्यक, ऐसे यौगिक जोकि जैविक रूप से सक्रिय हैं और अन्य जो हमारे पारिस्थितिक तंत्र एवं प्रकृति की खोज में सहायक हैं, को समझने में मदद करते हैं। इसमें हमारे युवा पाठकों के लिए कई वैज्ञानिक सिद्धांतों की व्याख्या की गई है और उनको पहेलियों एवं मनोरंजक गतिविधियों के साथ जोड़ा गया है। इसके अंतर्गत “क्या आप जानते हैं?” और “रास्ता दूढ़ा” जैसे स्तर क्विडिले शामिल हैं।

इस न्यूजलेटर के माध्यम से में विपनेत के समन्वयकों और सदस्यों से इस अवसर का अधिकतम लाभ लेने का आयाद करता हूँ। आप लेखों और स्तंभों में दी गई सामग्री को सुलझा कर, समाधान एवं विशेषण के माध्यम से संसाधन सामग्री को प्राप्त कर सकते हैं।
अंतिम पृष्ठ बागपत (उत्तर प्रदेश), सीतामढ़ी (बिहार), दुर्ग (छत्तीसगढ़), असम, आंध्र प्रदेश, तमिलनाडु और पंजाब में सक्रिय सदस्यों की गतिविधियों पर ‘क्लब स्पीकर’ के माध्यम से प्रकाश डाला गया है। हम ‘क्लब स्पीकर’ की सामग्री को बढ़ाना चाहते हैं। इसमें कोई भी राय नहीं है कि इसकी जिम्मेदारी आपके कंधों पर है और हमें इस संबंध में आपकी उत्साहपूर्ण प्रतिक्रिया प्राप्त करने की उम्मीद है।

■ (अनुवाद: राज कुमार)
In this section we will explain some interesting physical phenomena and would like our readers to perform the experiments. You may perform the experiments in exactly the same method as explained or perform in different ways and report us.

The objective is to help in developing conceptual understanding of a few physical phenomena by doing hands-on activities. Experiments not only make science exciting, these are also useful ways to help understanding the underlying scientific theory and concepts.

Yesterday I went to the National Science Centre on a day-long visit to do hands-on science experiment and to learn exciting scientific facts. It was indeed an enjoyable experience to explore different science galleries that explain science in simple and lucid language. I was particularly fascinated with the hands-on science section.

Back home, I could not wait discussing with my uncle about those interesting and wonderful hands-on experiments.

‘Googol, how was your trip to the science centre?’ uncle asked.

‘Uncle, it was very good. Particularly, the hands-on experiments section was fantastic,’ I said.

‘That is how you learn science by doing the real experiments. The experiments not only make science exciting, these are also useful ways to help understanding the underlying scientific theory and concepts. Well Googol, tell me which one you liked the most?’

‘I saw a double cone moving upwards as if it was defying the gravity!’ I said.

‘Does it actually defy the gravity?’ uncle asked.

‘No, it does not defy the gravity. The centre of mass of the double cone actually moves downwards, in the direction of the gravitational pull. The trick is in the shape of the rail - an inclined ‘V’ shaped rail is used in the demonstration. As the double cone is released, due to the gravitational pull, the double cone start moving. Due to the ‘V’ shape of the rail, the centre of mass of the cone goes downwards, however due to the side elevation of the rail it appears that the cone is moving upwards.’ I explained.

‘Good. However, you have missed one point - the shape of the object - in this case, it is a double cone. Due to its shape, even when it goes downwards along the ‘V’ shaped rail, it becomes difficult to notice the small downwards movement. Circumference of a double cone at mid point is much bigger than its edges. Initially the centre of mass of the double cone is much above the rail as it is placed at the narrow end of the ‘V’ shaped rail. That is why even though the cone does ascend the slope, its centre of gravity will actually move downwards. However the experiment is to be set up in the right way. Another point is that the observation must be done from one side of the rail - otherwise elevation will not be visible.’ uncle explained.

‘Please explain what is centre of mass,’ I wanted to know.

‘Centre of mass may be considered as a single point which can be used to describe the system’s response to external forces, that is, like the balancing of a seesaw about a pivot point.’ Uncle explained.

‘Is centre of mass and centre of gravity same?’ I wanted to know.

‘If the size of the object is not extraordinarily large, both are considered same. However, if you consider a very big object, for example, the Mount Everest, then centre of mass and centre of gravity are different. This is due to the fact that acceleration due to gravity changes with altitude.’

‘Thank you uncle.’

†Rintu Nath
rnath@vigyanprasar.gov.in
ACTIVITY-1

AIM: To understand the phenomenon between centre of mass and gravity.

REQUIREMENTS: Cardboards, Scissor, Scale, Pencil

PROCEDURE: Construct a 'V' shaped ramp as shown in Figure -01. Make sure that BD is larger than AE. You are free to construct depending on the size of the double cone. However, you may consider length DE = 2 feet approximately. You have to adjust BC and BD to get the best result for a given double cone. If you want to take measurements, you may construct the ramp using adjustable screw as shown in figure 2.

Next construct a double cone as shown in figure 1.

EXERCISE:

Make a table and note all the dimensions along with time taken by the double cone to move up the ramp. You may create a table as given below and note down the observations:

<table>
<thead>
<tr>
<th>Length of the ramp (DE)</th>
<th>Maximum Separation (BC)</th>
<th>BD =</th>
<th>AE =</th>
<th>Base diameter of each cone</th>
<th>Height of each cone</th>
<th>Time taken to move up the ramp</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Complete the activity and send us the result on vipnet@vigyanprasar.gov.in with subject title 'Activity-1' OR Send the answer with envelop entitled 'Activity-1' to Vigyan Prasar, A-50, Institutional Area, Sector-62, Noida-201 309 (U.P.).
Today, technology has completely changed the scenario of our kitchen. Earlier most of the families used wood fired “Chulha”, Kerosene stove as their primary cooking device and then they adopted LPG. Now Microwave Oven is quite common as a supplementary cooking device in their kitchen.

You will be surprised to know that the Microwave oven were invented by accident by man who was orphaned and never finished school. His name was Percy Spencer. His father died when he was just seven year old. He left school at the age of seven when his uncle died who was fostering him after his father is death. He start working at a spool mill and later joined U.S navy where he taught himself trigonometry, calculus, chemistry, physics and other subjects and which later on developed his interest in wireless communication. One day, in year 1939, while working on building magnetron with the team of radar tube design, Spencer was standing in front of active radar set when he noticed the candy bar, he had in his pocket melted. He took this event very seriously and found out this happepd due to the electromagnetic radia- tions produced by Magnetron. He then began other experiments to observe similar results. With this clue he designed first true microwave oven by attaching a high density electromagnetic field generator (magnetron) to an enclosed metal box. A magnetron is usually in cylindrical shape with a magnetic field parallel to its axis produces short electromagnetic waves within the wavelength range 10 to 1 cm (3GHZ to 30 GHZ). The company where Spencer was working applied patent on 1945 for microwave cooking oven and which was 6 feet tall and weighed around 340 kilogram. With the advance- ment in technology and material size and weight of micro- wave has been reduced to 10 Inch and 13 kilogram respectively. Now a day following types of Microwave oven are available in the market:

**Types of Microwave Ovens**

**Solo Microwave Oven**

It is basic microwave which gives uniform heating for defrosting, reheating or cooking food and not used in grill or baking purposes. This oven is best suited for popping corn, defrosting meat, reheating pizza and basic cooking.

**Grill Microwave Oven**

This is solo microwave equipped with heating coils and can be used to grill, toast or roast food. With this type of oven you can grill tikkas, kababs and vegetables etc.

**Convention Microwave**

A convection microwave uses a combination of the two technologies a regular microwave and a convection oven. It can be used to bake anything from cookies and cakes.

**OTG**

An Oven Toaster Griller (OTG) can reheat, keep warm, grill and most importantly bake food items. It has heating coils on the ceiling and the roof of the oven. This heating element converts electric energy into heat to create high temperature. As the chamber is enclosed, the heat loss from the chamber is low. Thus, OTGs are generally more energy efficient not necessarily cost efficient.

**How does a microwave oven works?**

A microwave oven cooks not with the heat but with the radiation similar to radar waves. The heat in an ordinary oven first hits the outside of the food and works its way inward. But microwave radiation goes through the food, bounces off the floor or wall of the oven and goes through the food again.

Radiation also changes its polarity or its positive-negative direction several billion times a second. The rapidly oscillating microwave radiation acts on the water in food because of a special property of water. Water molecules also have polarities, one made of oxygen atom, which is negative and two atoms which are positive, each water molecule has a positive and negative end. Every water molecule responds to the reversal of micro wave field by reversing itself, twisting back and forth billions of times a second. As the twisting water molecules rub against other molecules, they generate friction, which causes the food to heat up and cook rapidly. Another advantage of electromagnetic waves is that it is not absorbed by plastic, glass or ceramics. So it is safe to cook in these types of vessels.

**What should I look for before buying a Microwave?**

The choice between the three should then depend on what type of food you want to prepare on frequent basis, your budget, capacity (volume), electricity consumption and local availabilities of repair facility. Generally for a family...
of one to four people a small microwave up to 18-20 litres will be fine. Beyond that 30 litre microwave will be preferred. For restaurant, hotel, office beyond one could go for more than 30 liters. As far as electricity consumption is concerned convection microwave ovens cook food faster and consume more energy as compare to OTG and others. A microwave comes in power range of 600-1200 watts. Oven with higher wattage cooks faster but is expensive as well. Most of recipe requires 800 wattage minimum to cook, so one should go for minimum 800 watts. A family that wants to use it for heating and defrosting ideally go for convection microwave and OTG will be ideal for professional bakers. Always buy an oven from branded company because it have service centers and uses good quality magnetron and produce same watts of microwave radiation.

Use of Microwave Oven is safe?
The type of radiation emitted by microwave oven is non-ionizing. This means it does not contribute to getting harmful results like from X-rays, ultraviolet rays etc. Magnetron inside the microwave oven produces the electromagnetic radiation up to 2.45 GHz.

<table>
<thead>
<tr>
<th>SN</th>
<th>Observation</th>
<th>Type of voltage</th>
<th>Approximates result in watts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>When water is boiled less than two minutes</td>
<td>Very high voltage oven</td>
<td>1000 watts or more</td>
</tr>
<tr>
<td>2.</td>
<td>When water takes two and half minutes to boil</td>
<td>High wattage</td>
<td>800 watts or more</td>
</tr>
<tr>
<td>3.</td>
<td>When water takes three minutes to boil</td>
<td>Average wattage</td>
<td>650-700 watts or more</td>
</tr>
<tr>
<td>4.</td>
<td>When water takes more than three minutes to boil</td>
<td>Low wattage</td>
<td>350-500 watts</td>
</tr>
</tbody>
</table>

EXERCISE:
Compare your results with the given table:

Complete the activity and send us the result on vipnet@vigyanprasar.gov.in with subject title 'Activity-2' OR Send the answer with envelop entitled 'Activity-2' to Vigyan Prasar, A-50, Institutional Area, Sector-62, Noida-201 309 (U.P.).
In the infinite universe, we are really lucky to be the inhabitants of this green planet Earth. The ecology of our planet comprises of two major components, organisms and their environment. These two are quite opposite to each other; while the former is living (biotic), the latter non-living (abiotic). But interestingly they are interdependent and mutually reactive. To describe this relationship, famous ecologist Von Humboldt once said, "In the great chain of causes and effects, no activity or thing can be considered in isolation."

In nature’s scheme of things, everything is indispensable and nothing is worthless. All the components of our planet Earth are well-measured in their shape and size. They have justifiable reasons for their existence. They are neither more nor less. For the life to sustain here, role of non-living part is as important as the living creatures are. The tree has a definite role in our ecosystem and soil, water and air also play dynamic roles even if they are non-living. Imagine if there is no soil, water or air, then no plant could grow up into a tree. The life on Earth comes into being when the biotic and abiotic components of the ecosystem harmonize at a point. In fact, their co-existence is a sine qua non for Earth and a life that it is exclusively known for.

The relationship between the organism and environment is covered under the study of ecology. This term was coined by the French Zoologist Isodore Geoffroy. The term ecology is the combination of two Greek words, Oikos (house or dwelling place) and logos (the "study of") which denotes the relationship between the organisms and their environment in a true sense.

The biotic and abiotic components of the ecology are intrinsically associated to each other by an invisible natural bond. Man has always been attempting to break such bondage unknowingly only to fulfill their biological or worldly needs. In his blind rush for material exploitation, man is devastating the vitals of his own dwelling place. To a very great extent, man-made attempts are responsible for creating imbalances in the system of nature. The children, at their early phase of learning should be made aware of and sensitize to maintain a protocol of how to live on Earth. Only thus, they could grow up into a more sensible and responsible fellow citizen of the Earth.

Ecology is a broad term but if we talk about the inseparable relationship between the biotic and abiotic components of a particular region of the ecology, another term ecosystem comes up. This term was proposed by A.G. Tansley in 1935, who defined it as 'the system resulting from the integration of all the living and non-living factors of the environments'. In the ecosystem, there is a flow of energy that leads to a clearly defined trophic structure (based on the nutrition of the different levels of the organisms). The various geochemical cycles in an ecosystem play significant roles in the exchange of materials between living and non-living components. Figure 1 shows a pictorial depiction of the nutritional relationship (food links) among the living organisms of such a system. Keeping this in mind, we may think of the Earth as a giant ecosystem where abiotic and biotic components are constantly acting and reacting upon each other bringing forth structural and functional changes in it. This vast ecosystem - Biosphere is, however, difficult to be handled and thus for convenience, we generally study nature by making its artificial sub-divisions into units of smaller ecosystems like terrestrial (forest, desert, grassland & man-made as a cropland) and aquatic (freshwater and marine water etc.) of different sizes. In this way, an ecosystem may be as small as a pond or as large as a forest.

In this series, I will discuss the detailed account of the following abiotic and biotic components of the ecosystem. Of course, the content and presentation of these articles will be related to each other.

**Abiotic Components**

**Biotic Components**

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**ACTIVITY -3**

Categorize the abiotic and biotic components of the terrestrial eco-systems given below:

- Grasshopper, banyan tree, horse, goat, grass, soil, deer, wind, cow, mustard plant, ant, nitrogen cycle, humidity, rabbit, ticks, leopard, lion, parasites, decomposers, worm, climate moisture, oxygen.

**EXERCISE**: Make a table and distinguish the biotic and abiotic components.

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Complete the activity and send us the result on vipnet@vigyanprasargov.in with subject title ‘Activity-3’ OR Send the answer with envelop entitled ‘Activity-3’ to Vigyan Prasarg, A-50, Institutional Area, Sector-62, Noida-201 309 (U.P.).
Exploring Science

Introduction
Rain, a blessing from the heavens, how much each one of us enjoys the rain! While dancing and playing in the rain and drawing rain drops on sheets of paper for showing the rainy season, have we ever realised what is the shape we draw for these drops. Why is the shape not a cube or cuboid or even pyramidal? Why are rain drops spherical in shape?

The thermometer contains mercury in it. If it had water in the thermometer, it would stick to walls of the thermometer while mercury does not stick to the wall. Why? If the thermometer breaks and mercury falls on the ground, it collects in the form of small balls (spheres) of mercury. Why does it not acquire any other shape?

You must have played with the bubble making toy. Dipping the wire loop in the soap solution and blowing air produces attractive bubbles of different sizes but what about the shape? Yes, all soap bubbles are spherical.

When water and mercury are filled in a tube, a crescent or curve in the upper surface of liquids is observed. This curve is called meniscus. Why does water form a concave meniscus in a tube, while mercury forms a convex meniscus?

Surface Tension is the tension of the surface film of a liquid caused by the attraction of the particles in the surface layer by the bulk of the liquid, which tends to minimize surface area. It is a property of liquids due to which their surfaces behave like a thin, elastic film. Surface tension is an effect of intermolecular attraction, in which molecules at or near the surface undergo a net attraction to the rest of the fluid, while molecules not near the surface are attracted to other molecules equally in all directions and undergo no net attraction.

Surface tension is responsible for the spherical shape of drops of liquid. In order to minimize surface tension, the liquid tries to have minimum surface area. Out of all shapes available for the same volume, the surface area of sphere is minimum, thus liquids attain spherical shape.

You must have observed beetles and other insects floating on the surface of ponds. This phenomenon is observed due to surface tension. Surface tension is a property that allows the surface of a liquid to behave somewhat as a trampoline does. When a person stands on a trampoline, the trampoline stretches downward a bit and, in so doing, exerts an upward elastic force on the person.

This upward force balances the person's weight. The surface of the water behaves in a similar way. Observe minutely the picture of the insects on water, indentations in the water surface made by the feet of an insect known as a water strider, because it can stride or walk on the surface just as a person can walk on a trampoline.

Background
The molecules at the surface experience a net force pulling them inward. This net inward pull is known as Surface Tension.

In this project you'll investigate the chemistry of surface tension by measuring how many drops of water a coin can hold. What happens if you add salt or detergent to the water?
ACTIVITY -4

AIM : To investigate how added salt and added detergent affect the surface tension of water.

REQUIREMENTS :
To do this experiment you will need the following materials and equipment:
- Water
- Coin
- Plastic eyedropper
- Salt
- Dishwashing detergent
- Clean glasses
- Tablespoon.

Procedure
1. Hold the eyedropper close to the surface of the coin, carefully drop (pipette) water droplets onto the coin, one at a time, counting each drop.
   a. The droplets should pool up on the coin, creating a big droplet of water.
   b. To make sure your count is accurate, hold the pipette far enough above the coin so that the drop has to fall a short distance before fusing with the droplet on the coin.
2. Stop pipetting when the droplet on the coin breaks up and overflows. Count all of the drops except the one that caused the coin to overflow.
3. Repeat the measurement ten times for each solution that you test.
4. Test the following solutions:
   a. Added salt: dissolve 1 tablespoon in a glass of water,
   b. Added detergent: put 1 drop of liquid dishwashing detergent in 1 litre of water.

Observation Table:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Water No. of drops</th>
<th>Salt solution No. of drops</th>
<th>Detergent in water No. of drops</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
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<td>9</td>
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<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Average number of drops required

EXERCISE:

What do you conclude from the observation:

Answer the following questions:
What makes water 'bead' up on a freshly waxed car? Why do we observe water drops on the lotus leaves?

Explain surface tension in your own words.

If you fill a glass right up to the rim and then carefully add a few more drops of water, will the water spill? Support your answer with reason.

Complete the activity and send us the result on vipnet@vigyanprasar.gov.in with subject title 'Activity-4' OR Send the answer with envelop entitled 'Activity-4' to Vigyan Prasar, A-50, Institutional Area, Sector-62, Noida-201 309 (U.P.).
**Did You Know…**

1) Which IT company got name from San Francisco?
   - Cisco

2) In internet terminology, **IP** means
   - Internet Protocol

3) The standard protocol of the Internet is
   - TCP/IP

4) What is the expansion of **ASCII**?

5) Which software application is used for accessing websites or information on a network (as the World Wide Web)?
   - Web browser

6) The first page of a website is called the
   - Home page

7) The first web-based e-mail service?
   - Hot mail

8) Tic-Tac-Toe is……
   - 1st graphical game

Answer the below given questions in relation with above:

9) What is e-zine?
   - A web publication that is updated frequently

10) Which day is celebrated as world Computer Literacy Day?
    - October 20

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**Puzzle- 44 Based on Atom**

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G G H I A T E S H S D E R E S E
F G E S N E T U I O J F N E R T
E C A T I O N R T Y N E T U N F
F G T N O C D F G H H X D B H H
S D E F N E F G H P H D E F H A
A S E F G H U T A W E R T Y U L
F B N G Y R T R W G H J G T Y F
H J S R H I G G S B O S O N R L
S D F O B R T Y U G H D D V B I
N V F G R P H O T O N V P V F F
G B N H C B V F D F G H A D V E
V B N M J G E D S D F G R B N M
F F G N E U T R I N O R T T H J
H R T G H U U I D U B N C N M C
C P O S I T R O N G H B L N M J
T H Y U H J K K U I R D E R T Y
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**Clue**

- An ion with a negative electrical charge
- An ion that has a positive electrical charge
- An elementary particle that could explain where mass comes from
- A non-technical name for the Higgs boson
- A particle that is smaller than an atom and has no electrical charge
- A particle that is the same size as an electron but has a positive electrical charge
- A material that consists of a layer of carbon that is only one atom thick
- Any material that stops ionizing radiation.
- The time in which half the atoms of a particular radioactive nuclide disintegrate.
- A quantity of electromagnetic energy

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**Answer: Atom Puzzle- 43**

**विजेता/Winner**

1. Mahajan Neeraj Dinakar (Pune)
2. Tanvi Garg (Muktsar)

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Solve the above quizzes and send us the results on vipnet@vigyanprasar.gov.in with subject title 'Quiz Corner'. OR Send the answer with envelop entitled ‘Quiz Corner’ to Vigyan Prasar, A-50, Institutional Area, Sector-62, Noida-201 309 (U.P.). Winners will get activity kit/books as a prize.
Club speak

International Year of Crystallography 2014

Club speak

विश्व पर्यावरण दिवस मनाया

विश्व पर्यावरण दिवस के अवसर पर प्रगति विज्ञान संस्था गाजियाबाद की
30 वीं वर्षगांठ पर प्रगति विज्ञान संस्था के सदस्यों व पारंपरिक अन्य
के द्वारा विज्ञन नगर सी ज्वांक पार्क में एक पीढ़ी लगाकर विश्व पर्यावरण
दिवस मनाया गया।

सभी ने प्रगति विज्ञान संस्था के साथ यह संकल्प लिया कि हम सभी
अपने पर्यावरण को बचाने के लिए अपने-अपने जम्मा दिवस पर एक-एक
पीढ़ी जोर से लगाएं। साथ ही पीढ़ी बनाने के बाद उनकी सिंचाई व रापण
भी करने का संकल्प सभी कलब सदस्यों ने लिया। इस अवसर पर प्रगति
विज्ञान संस्थान के सदस्यों में रोहिणी, श्रीवत्स, नहा, एवं आशा, मुकेश
आदि थे।

वृक्षारोपण कार्यक्रम

आयर्नस्ट विज्ञान कलब, मध्य प्रदेश द्वारा सर आइजक न्यूटन की जयंती पर
एक वृक्षारोपण कार्यक्रम का आयोजन किया गया जिसमें विज्ञान से संबंधित
विभिन्न क्षेत्रों के बारे में बताया गया। इस अवसर पर कलब द्वारा वृक्षारोपण कार्यक्रम
cा आयोजन भी किया गया जिसमें कलब के सदस्यों द्वारा 100 से अधिक
वृक्षों का रोपण किया गया।

वार्षिक रिपोर्ट

कलबना साइंस कलब विहार द्वारा गतु महीनों में कई कार्यक्रमों का आयोजन

Activity Report

Blackbody Science Group organized number of activities
during the past calendar year. The group celebrated the
"International Year of Water Cooperation-2013" in a unique
way to spread the awareness among people. Group sur-
veyed the local water bodies and conducted some experi-
ments on Hebbal lake in Mysore. During a workshop in
Karnataka group presented a puppet show on comet ISON. Group also started building the mobile planetarium for gen-
eral public.
Activity Report

Kalpana Chawla Science Club and Kalam Science Club, Warangal participated in “National Environment Awareness Campaign” conducted by Deccan Development Society (Ministry of Environment & Forests, Govt. of India) under which the club conducted many awareness programs in last 6 months like slogan writing on main streams of village, pamphlets & poster making, essay writing and drawing competitions. Kalpana Chawla Science Club also conducted an exhibition on the occasion of “National Science Day”.

World Amateur Radio Day

International Amateur Wireless Station Operators Society, Kumbakonam celebrated “World Amateur Radio Day” on 18 April, 2014. They organized a workshop on GP Antenna Fabrication on that day. The target group for the workshop are Ham radio operators, SWLs and science enthusiasts. In the workshop participants learned how to fabricate GP (Ground Plane) antenna for VHF operation using locally available materials. This was the first time IAWSOS provide training to the participants in India.

Earth Day Celebration

Chandrayaan VIPNET Club, Hans Raj Mahila Maha Vidyalaya, Jalandhar celebrated “World Earth Day” on 26 April, 2014 in their college campus. During the event the club organized many activities for their students. First of all a power point presentation competition took place then a slogan-cum-poster making competition happened. The main theme of the competition was Energy Conservation, Global warming and Climate change. Donation and plantation of trees was also done by the students on this occasion.