



**Bal Bharati**  
**PUBLIC SCHOOL**

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## WORKSHOP REPORT

**Workshop title: ODYSSEY OF ELEMENTS**

**Date: 28.08.2019 & 29.08.2019**

**Venue: National Science Centre, Delhi**

**Attended by: Ms. Vibha Jain , Ms. Indula. Mishra, & Ms. Neerja. Bhatnagar**

**Organizer: National Science Centre , Delhi.**

**Content of the Workshop:**

**DATE: 28.08.19**

**Resource Persons : Dr. Meenu Shrivastava and her team members**

**& Faculty of National Science Centre.**

On the first day of the workshop the following activities and discussion took place :

- Presentation and demonstration of activities related to Green Chemistry .
- Examples in this area were demonstrated like converting rancid oil to useful biodiesel.
- They also demonstrated the formation of nano particles of gold and silver sols.
- The second session post lunch was made interesting by inviting teachers to perform simple experiments but with a different approach like showing carbon column, displacement of hydrogen from acids and collecting hydrogen gas into a solution of foam and water and Pharaoh` snake etc.

**DATE: 29.08.19**

**Resource Person:** Mrs Mamta kothari jewellery designer , Professor R.K.Parashar, NCERT

- On the second day the first session started with greetings from the organiser followed by the general discussion on the hands on activity.
- Formal session was taken by Mrs Mamta Kothari, jewellery designer who discussed the occurrence and all physical and chemical properties of gold along with the types of gold and the purity of gold which is used in the preparation of jewellery.
- Gold is unaffected by air , water and acids, this property of gold makes it a noble metal and always a favourite of women in form of jewellery.
- She also discussed about the purity of gold along with diamond and various nuances of designing of jewellery .Karat is term which is used for the purity of gold and carat is the term which is used for measuring the mass of diamonds.
- The melting point of gold can be decreased by adding a white powder which is called borax or

suhaga.

- In the next session all participants were given time to prepare their hands on activity and all presented these activities in a group of four each .
- All activities were simple but the approach to conduct them was different.
- The preparation of rocket by using vinegar and baking soda stole the show. The changing oxidation number of Manganese in different medium was also very interesting.
- Evening session was conducted by professor RK Parashar from NCERT. He showed the preparation of electrochemical cell using micro quantity of salts and makeshift arrangement for salt bridge. Change in volume of liquids showing negative or positive deviation from ideal behavior.

#### **Learning outcomes (Knowledge and Information) from the workshop/Seminar?**

- A chemist should always adopt the principles of green chemistry.
- The thumb rule is that manufacturing should always be in harmony with sustainability.
- Students should understand that chemicals can be handled without fear in the laboratory while observing proper care and precautions.
- Chemistry can be made interesting by adopting new approach of teaching where in hands on activity should be given prime importance.

#### **Which topics or aspects of the workshop/Seminar did you find most interesting or useful and can be applied to the classroom teaching?**

- The sessions of hands on activities were by far the most interesting sessions .
- The involvement of students in experimentation leads to greater understanding and interest in the subject.
- **Comments and suggestions (How do you think the workshop/Seminar could have been made more effective?)**
  - The chemistry and the chemical equations behind some of the experiments which were shown by the presenters was unexplained.
  - Its duration could have been shortened as all the briefing could have been summed up in a lesser period of time.

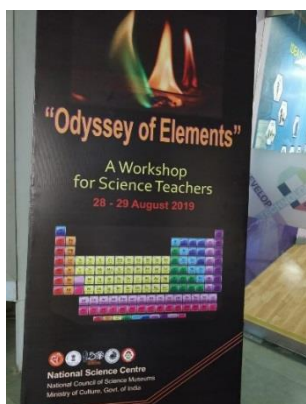
#### **4. Was the advance briefing about the workshop/Seminar appropriate?**

Yes, the advance briefing was completely appropriate

<b>GENERAL FEEDBACK</b>	<b>YES</b>	<b>NO</b>	<b>NOT SURE</b>
<ul style="list-style-type: none"><li>• The workshop/Seminar was applicable to my job</li></ul>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

- I will recommend this workshop/Seminar for other faculty members. Yes
- The program was well paced within the allotted time **Yes**
- The material was presented in an organized manner **Yes**
- The resource person was a good communicator **Yes**
- The resource person was knowledgeable on the topic **Yes**
- I would be interested in attending a follow-up, more advanced workshop/Seminar on this same subject Yes
- I will be able to conduct follow up workshop for the benefit of fellow Staff Members Yes

### GLIMPSES FROM THE WORKSHOP





Inaugural address by the Director of National Science Centre.



Demonstration of activities by NSC faculty.

Report submitted by:

Indula Mishra

Vibha Jain

Neerja Bhatnagar

Submission Date: 06.09.19