

## REPORT ON CBSE WORKSHOP

Topic: CAPACITY BUILDING PROGRAMME FOR ACTIVITY BASED TEACHING OF SCIENCE (IX-X)

Organised by: CBSE

Date: 11<sup>th</sup> and 12<sup>th</sup> August 2023

Venue: DELHI PUBLIC SCHOOL, SECTOR-45, GURGAON

Time: 9 a.m. - 4.30 p.m.

Resource persons: Dr. Raj Sangwaan and Ms. Vandana Banga

Attendees: Workshop was attended by science teachers from Gurugram and nearby regions.

A two-day CAPACITY BUILDING PROGRAMME for activity-based teaching of science was organised by CBSE, highlighting science as being an accumulated body of findings, chiefly based on the present state of knowledge.

Nature of science, as a subject, involves studying the characteristics and processes of science to differentiate between ‘What is Science?’ and ‘What is NOT Science?’ Emphasis was laid upon the scientific method of inquiry, which is logical and involves the collection of data and evidence to support or reject certain hypothesis.

The session provided a powerful and engaging learning experience through various activities. The resource person elaborated on the various dimensions of study like the creation of an environment conducive to learning and how student-directed learning makes the classroom less of an ‘institution’ and more of a ‘community’, encouraging mutual support. Such an approach provides the students with greater responsibility for learning and self-discovery. The importance of teaching aids in the effectiveness of a lesson were discussed. Teachers were made to understand how these teaching aids provide the learners with different intelligences to enjoy learning as well as develop their potential and thinking skills. The need for developing independent and critical thinking and problem-solving skills in students was laid emphasis on as when students have strong self-awareness skills, they can identify their strengths and challenges.

The three main domains of learning based on Bloom’s Taxonomy- Pyramid are - Knowledge (cognitive), Skills (psychomotor) and Attitudes (affective). Understanding of these traits and behaviours of adolescent during their transition period in life from childhood to adulthood is imperative and thus were focused upon.

The workshop also guided teachers to use triggers or warm-up activities to activate prior knowledge and capture students’ attention. e.g., card sorting, entrance or exit cards and game activities, along with the importance of using a lesson plan by educators to attain SMART (specific, measurable, accurate, relevant, timebound) objectives. The teachers were also guided to create a constructivist classroom where both teacher and students view knowledge, not as inert factoids to be memorised but as a tool for exploration and expansion.

The use of different teaching strategies such as ‘Jigsaw’, ‘Case- based/ Case study’ and ‘Anticipation guide’ to make learning visible, enhance student participation, connection and provide immediate and

relevant teacher feedback were elucidated. The role of assessments in enhancing the success of the process of learning and motivation was highlighted along with the understanding of assessment of learning as summative, while assessment for learning as formative. Assessment as and in learning is when students are own assessors was also explained.

The importance of competency based education, which helps students develop and demonstrate mastery over their knowledge and skills thereby attaining the learning objectives laid down by the teacher, was emphasised. Thus, the workshop was not only engaging but highly invigorating for the teachers.

