

## **Internal Seminar**

### **Designing Learning Programs for School Science Education**

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The concepts of matter, life, and light are foundational to the discipline of science and central concepts taught in school science. Conceptual innovation in science takes place in attempts to solve specific problems and scientific creativity is situated within these problem-solving contexts & processes. The uniqueness of science as a school subject arises from the methodologies and cognitive processes it offers to a learner. The talk explores the question of how Indian school science education integrates these distinct characteristics of the discipline of science into the science curriculum and teaching-learning processes. It proposes designing of science learning programs on the concepts of matter, life & light and topics related to frontier areas of scientific research based on the framework of authentic inquiry and spiral curriculum. The larger goal is to evolve research-based science curricular programs and innovative pedagogies for school science education in collaboration between children, teachers, scientists and educationists — a science curriculum that prepares children for an active and responsible future citizenship of a democratic society; that nurtures scientific creativity, reasoning and critical thinking skills; that takes into account the nature of the learner and of the learning processes and a curriculum that situates learning in the everyday world, socio-economic and cultural milieu of the learner.

***Wednesday, Nov 6<sup>th</sup> 2019***

***11:30 AM (Tea/Coffee at 11:00 AM)***

***Seminar Hall, TIFR-H***