

Foreword

Hands-on. The Heart of Science Education

Recognizing the importance of Science to the development of the Society and of Humankind, constant efforts are being actively made worldwide and for many many centuries by researchers and scientists, teachers and educators, parents and the society in general to improve Science Education and increase Science Literacy at all levels of our societies. Different approaches in different lines of sought are explored. All with both positive and negative aspects and outcomes. Regardless of the addressee, the active commitment of the learner is always fundamental to a successful education. Hands-on activities inherently involves active critical reasoning and interaction with the learning object placing the student in the center of the learning process. The student/learner will act (certainly at different depth levels and pace) in fact as a researcher that will work trying to solve the questions/problems raised, creating in a meaningful way their own new knowledge. Definitely HANDS-ON should/is at the very heart of Science Education.

The book herein aims to contribute to the improvement of Science Education in our schools and to an effective implementation of a sound widespread scientific literacy at all levels of society. Its chapters reunite a variety of diverse works presented in this line of thought at the 13th International Conference on Hands-on Science held in Brno, Czech Republic, July 18 to 22, 2016.

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