



# ECRICE

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## BOOK OF ABSTRACTS

**EuCheMS**   
European Chemical Sciences





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## An Activity for Teaching Heat Concept to Visually Impaired Students

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Visual impairment is a decreased ability to see to a degree that causes problems not fixable by usual means. Concepts in science and mathematics have been found inaccessible to students with visual impairment due to use of figures, equations and graphs. Teachers can make the world of science more accessible to students with visual impairments through collaboration and specific adaptations in both the science classroom and laboratory by providing students with a variety of opportunities to explore and examine real materials closely or use models.

This study aimed to develop an activity, as part of a large project, which is accessible to visually impaired students in teaching heat concept which is found difficult to comprehend even by the sighted students. For this purpose we have designed an activity based on using tactile materials for making science more accessible to 8<sup>th</sup> grade students in a special school for visually impaired. Participant of this activity was six students including a blind student. The activity is basically consists of simple, economical and easily accessible everyday materials. Two plastic bottles, one of which includes warm water and the other includes cold water was given to every students to hold them with their each hands. Then students were questioned through inquiry based questions during the following 20 minutes. Before the activity, participants were interviewed to see their conceptual understanding of heat. There were typical misconceptions among the students about heat. In the follow up interviews four weeks after the activity took place nearly all of the students were able to answer questions about "heat" concept and did not displayed the misconceptions.