International Journal of Environmental & Science Education
(2015), *10*, 133-134

Book Review

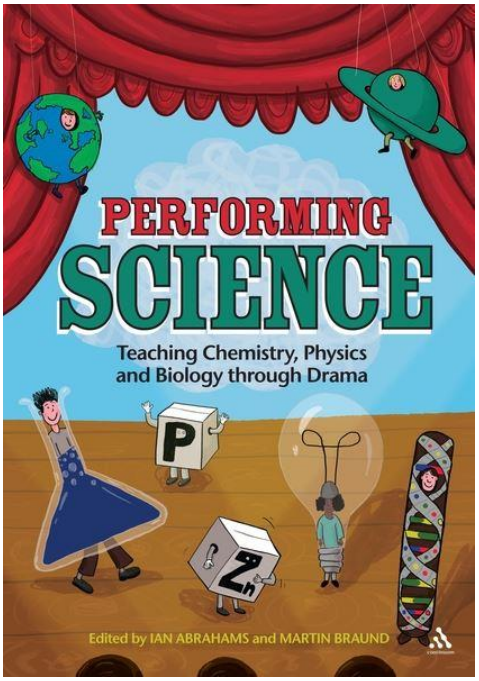
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Accepted 7 April 2014

doi: 10.12973/ijese.2015.235a

Performing Science Teaching Chemistry, Physics and Biology through Drama



Edited by

Ian Abrahams and Martin Braund

1st Edition, 160 pages

ISBN: 9781441184528

Continuum International Publishing

This book is a practical guide for secondary science teachers in terms of equipping them to use drama in their classrooms. Drama has been used in science classrooms for many decades, but has become more popular since the 1990s, and there have been several studies examining its effectiveness. In addition to discussing the value of drama in science lessons, the book covers session plans' for biology, chemistry and physics lessons across ages 11-14 and 14-16. The structure is sensible, as it avoids the UK's 'Key Stage' terminology, and is therefore more appropriate for an international audience. The book ends with a short concluding chapter which provides a rationale for combining the arts and the sciences, as well as offering a theoretical basis for the approaches taken.

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The chapters on the 15 session plans for biology teaching cover a range of topics, from human biology (e.g. reproduction; digestive system; homeostasis) to physiology (e.g. cells; photosynthesis) to evolution and ecology. Each plan has a common format: aims, location, resources, misconceptions, process and differentiation. The section on misconceptions is particularly important as the use of drama (as well as models, analogies and other representations) has to be carefully used so as not to engender misrepresenting the very concepts they are intending to impart. 'Process' is the most detailed section, with precise instructions on how to carry out each activity. This section also includes a warm-up activity for each session; the six generic warm-up activities are listed as an appendix and aim to get students into the right frame of mind for the ensuing drama activity. Possible hazards to be aware of are listed at the end of each section.

The chemistry and physics chapters follow the same format as for biology, and each include 15 topics. There are traditional topics such as pH scale, electrolysis, various reactions, electricity, magnetism, force and acceleration. However, there are also activities on environmental chemistry (climate change), the rock cycle, the solar system, and braking distance. The dramatic aspects of the processes include role plays, argumentation, and students physically representing phenomena (e.g. elements; molecules; electrons). Every activity has been developed with consulting teachers in a variety of schools, ensuring that the activities are authentic and practical. There is also a companion website which provides downloadable resources available to accompany the 15 activities in each subject. However, unfortunately, the website provided in the book no longer works. A little detective work discovered that by going to www.bloomsbury.com, registering on their website (a requirement) and finding 'Performing Science' one can access the 30 resources.

In summary, this book is an excellent resource that encourages teachers to use drama in the teaching of science. It provides useful and practical activities to this end and is a welcome addition to pre- and in-service resource materials for teachers. It may also encourage research into the use of drama in classrooms to determine the extent to which a dramatic approach improves teaching and learning.

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Please cite as: Lelliott, A. (2015). Book Review [Title of Book: Performing Science Teaching Chemistry, Physics and Biology through Drama by Ian Abrahams and Martin Braund (Eds.)], *International Journal of Environmental and Science Education*, *10*(1), 133-134. doi: 10.12973/ijese.2015.235a