1. Record Nr. UNINA9910298645803321

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Titolo	Applications of graphene : an overview / / E.L. Wolf
Pubbl/distr/stampa	Cham [Switzerland] : , : Springer, , 2014
ISBN	3-319-03946-6
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (vii, 84 pages) : illustrations (some color)
Collana	SpringerBriefs in Materials, , 2192-1091
Disciplina	546.681
Soggetti	Graphene
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"ISSN: 2192-1091." "ISSN: 2192-1105 (electronic)."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Physical and Electrical Properties of Graphene -- Practical Productions of Graphene, Supply and Cost.- Solar Cells and Electrodes -- Graphene Logic Devices and Moore’s Law -- Niche Applications of Graphene within Silicon Technology.
Sommario/riassunto	Graphene is presented and analyzed as a replacement for silicon. Primary focus is on solar cell and CMOS device technologies, with attention to the fabrication methods, including extensions needed, in each case. Specialized applications for graphene within the existing silicon technology are discussed and found to be promising.

2. Record Nr. UNINA9910826445603321

Titolo	Performing science : teaching chemistry, physics and biology through drama / / edited by Ian Abrahams and Martin Braund ; contributor, Ian Abrahams [and eight others]
Pubbl/distr/stampa	London, [England] ; ; New York, New York : , : Continuum, , 2012 ©2012
ISBN	1-4411-8452-X
Descrizione fisica	1 online resource (161 p.)
Disciplina	507.1241
Soggetti	Science - Study and teaching (Secondary) - Activity programs - Great Britain Drama in education - Great Britain
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Acknowledgements; Introduction; The purpose of this book ; Background; Structure; 1 The value of using drama to teach science; General introduction to using drama in science teaching; Focusing games ; Tableaux/Freeze frame; Animated diagrams; Role play; General tips; 2 Biology:session plans for 11-14; Adaptation and survival Martin Braund; Microbes - the fight against disease Martin Braund; Human reproduction - fertilization Martin Braund; Muscles and movement - features (adaptations) of animals without backbones Martin Braund; Human digestive system Martin Braund Circulatory and respiratory systems Sandra CampbellInsect pollination Sandra Campbell; 3 Biology: session plans for 14-16; Food chains - energy transfer Martin Braund; Kidney transplants - homeostasis Martin Braund; Evolution Martin Braund; Protein synthesis Sandra Campbell; Germ theory Sandra Campbell; Photosynthesis and the carbon cycle Sandra Campbell; Cells Sandra Campbell; Reed warblers and cuckoos Sandra Campbell; 4 Chemistry: session plans for 11-14; Particle arrangements in solids, liquids and gases - going further Ruth Amos Physical processes - soluble or insoluble/making a solution Ruth Amos Evaporation and condensation Ruth Amos ; Physical and chemical

processes - burning a candle Ruth Amos ; The rock cycle Chris Otter ; Distillation Chris Otter ; pH scale Chris Otter ; Elements, mixtures and compounds Chris Otter ; 5 Chemistry: session plans for 14-16; Balancing equations - the Haber process Ruth Amos; Environmental chemistry - carbon dioxide in the dock Ruth Amos ; Sustainable development - the World Games 2040 Ruth Amos ; Electrolysis Chris Otter
Acid/alkali neutralization Chris Otter Addition polymerization Chris Otter ; Exothermic and endothermic reactions Chris Otter ; 6 Physics: session plans for 11-14; Electricity - conservation of charge Ian Abrahams ; Heat - conduction Ian Abrahams ; Reflection Ian Abrahams ; Drag Erdem Erem and Murat Sag lam; Electric circuits Erdem Erem and Murat Sag lam; Sound - its transmission through solids, liquids and gases Erdem Erem and Murat Sag lam; Magnetic fields Rachael Sharpe; The solar system Rachael Sharpe; 7 Physics: session plans for 14-16
Braking distance Ian Abrahams P-waves and S-waves Ian Abrahams ; Static electricity Ian Abrahams ; Radioactivity - half-life Ian Abrahams and Rachael Sharpe; Force and acceleration Murat Sag lam and Erdem Erem; Energy Murat Sa glam and Rachael Sharpe; Alpha, beta and gamma absorption Rachael Sharpe; 8 Conclusions; Two cultures or one way of learning?; How drama can help in the teaching and learning of science; Appendix 1: Warm-up exercises; Fruit salad; Hand circle ; Keepy uppy; Psst!; Touch three things; Two truths and one lie; Appendix 2: optional student activities
Microbes - the fight against disease

Sommario/riassunto

How to increase students' interest and engagement in science is a challenge shared by teachers around the world. Designing effective science lesson plans using drama and role play requires expertise across two very different subject areas and, as a consequence, many science teachers find it difficult to incorporate this technique into their teaching. This book provides busy teachers with ready-made lesson plans for teaching many abstract scientific principles in a fun and novel way that really engages students. Drawing on and combining the knowledge of biology, chemistry and physics educatio