

# education

Department of Education FREE STATE PROVINCE

### PHYSICAL SCIENCES PAPER 1 (PHYSICS)

### **GRADE 12**

## TERMS & DEFINITIONS, QUESTIONS & ANSWERS PER TOPIC

#### 2019

#### TABLE OF CONTENTS

HOW TO USE THIS DOCUMENT	. 2
TERMS AND DEFINITIONS	. 3
QUESTIONS	.7
NEWTON'S LAWS	. 7
VERTICAL PROJECTILE MOTION	13
MOMENTUM AND IMPULSE	18
WORK, ENERGY AND POWER	23
DOPPLER EFFECT	29
ELECTROSTATICS	34
ELECTRIC CIRCUITS	42
ELECTRICAL MACHINES	50
OPTICAL PHENOMENA AND PROPERTIES OF MATERIALS	54
ANSWERS TO QUESTIONS	
NEWTON'S LAWS	62
VERTICAL PROJECTILE MOTION	69
MOMENTUM AND IMPULSE	79
WORK, ENERGY AND POWER	83
DOPPLER EFFECT	91
ELECTROSTATICS	95
ELECTRIC CIRCUITS1	04
ELECTRICAL MACHINES1	12
OPTICAL PHENOMENA AND PROPERTIES OF MATERIALS1	17
BIBLIOGRAPHY1	24

### **Physical Science Paper 1 November 201**

**Eric Scerri** 

#### **Physical Science Paper 1 November 201:**

Chemical News and Journal of Physical Science, 1870 The Chemical News and Journal of Physical Science, 1868. Collected Papers in Physics and Engineering James Thomson, James C. Thomson, 1912 Turbophysics Grade 12, Frames of Meaning HM Collins, TJ Pinch, 2013-04-15 Originally published in **OAR** .1969 The Electrician ,1908 1982 Taking a radical interpretation of the Kuhnian concept of paradigm incommensurability the authors begin by discussing the difficulties of gaining access to the ideas of communities with different rational categories and then define the subject area of parapsychology offering a review of the relevant literature After exploring parapsychology s compatibility with science physics psychology and quantum theory the authors move on from this predominantly theoretical framework and devote the middle section to an empirical study of metal bending They conclude with an examination of the results analyse diverse interpretations and investigate the consequences for the idea of scientific revolution Computing and the National Science Foundation, 1950-2016 Peter A. Freeman, W. Richards Adrion, William Aspray, 2019-11-21 This organizational history relates the role of the National Science Foundation NSF in the development of modern computing Drawing upon new and existing oral histories extensive use of NSF documents and the experience of two of the authors as senior managers this book describes how NSF s programmatic activities originated and evolved to become the primary source of funding for fundamental research in computing and information technologies The book traces how NSF s support has provided facilities and education for computing usage by all scientific disciplines aided in institution and professional community building supported fundamental research in computer science and allied disciplines and led the efforts to broaden participation in computing by all segments of society Today the research and infrastructure facilitated by NSF computing programs are significant economic drivers of American society and industry For example NSF supported work that led to the first widely used web browser Netscape sponsored the creation of algorithms at the core of the Google search engine facilitated the growth of the public Internet and funded research on the scientific basis for countless other applications and technologies NSF has advanced the development of human capital and ideas for future advances in computing and its applications This account is the first comprehensive coverage of NSF s role in the extraordinary growth and expansion of modern computing and its use It will appeal to historians of computing policy makers and leaders in government and academia and individuals interested in the history and development of computing and the NSF Historical Studies in the Physical Sciences, 1969.

A ^ATale of Seven Scientists and a New Philosophy of Science Eric Scerri,2016-10-10 Scerri discusses several less recognized scientists who worked throughout the twentieth century and shows how their contributions were just as key to scientific development as those of more commonly known figures These include Anton van den Broek who helped pioneer the atomic number and Edward Stoner who was the first to apply the third quantum number to the understanding the physics of the atom Throughout Scerri discusses the nature of scientific revolution arguing that it is the product of a complex

community functioning as a single organism Research in Education ,1974 The Chemical Trade Journal and Chemical Engineer, 1924 Chemical News and Journal of Physical Science William Crookes, James H. Gardiner, Gerald Druce, H. W. Blood-Ryan, 1900 The Academy ,1873 Maintaining the Integrity of Scientific Research United States. Congress. House. Committee on Science, Space, and Technology. Subcommittee on Investigations and Oversight, 1990 ERDA Energy Research Abstracts United States. Energy Research and Development Administration, 1976 The Athenaeum James Silk Buckingham, John Sterling, Frederick Denison Maurice, Henry Stebbing, Charles Wentworth Dilke, Thomas Kibble Hervey, William Hepworth Dixon, Norman Maccoll, Vernon Horace Rendall, John Middleton Murry, 1872 Volume I Robert A. Freitas, 2024-12-06 Molecular nanotechnology has been defined as the three dimensional positional control of molecular structure to create materials and devices to molecular precision. The human body is comprised of molecules hence the availability of molecular nanotechnology will permit dramatic progress in human medical services More than just an extension of molecular medicine nanomedicine will employ molecular machine systems to address medical problems and will use molecular knowledge to maintain and improve human health at the molecular scale Nanomedicine will have extraordinary and far reaching implications for the medical profession for the definition of disease for the diagnosis and treatment of medical conditions including aging for our very personal relationships with our own bodies and ultimately for the improvement and extension of natural human biological structure and function This book will be published in three volumes over the course of several years Readers wishing to keep up to date with the latest developments may visit the nanomedicine website maintained by the Foresight Institute http foresight org Nanomedicine index html Monthly Catalog of United States Government Publications ,1953 University Intellectual Property Graham Richards, 2012 The traditional role of the university has been to teach and conduct original research but this situation is changing As governments judge universities on new criteria including the impact they have and as universities are driven to search for finance from new sources those that run universities are increasingly looking to exploit the intellectual property created by their researchers to help deliver this impact and income How this should be done and whether it should be done at all is subject to much debate The key issues are What constitutes intellectual property Do academics or universities own IP Does the commercialisation of IP impact academic freedom How can IP best be exploited and who should be financially rewarded when it is What assistance can governments and other bodies provide This book investigates these issues After a review of how the current situation came to be the views and experiences of a range of experts are presented including those of a former high court judge a senior lawyer a patent attorney and professionals involved in technology transfer The contributors examine whether the roles of higher education institutions have changed what academics and universities should be doing and how technology transfer can be made more effective and efficient To conclude a provocative look at the ethics of the situation is presented

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#### **Table of Contents Physical Science Paper 1 November 201**

- 1. Understanding the eBook Physical Science Paper 1 November 201
  - The Rise of Digital Reading Physical Science Paper 1 November 201
  - Advantages of eBooks Over Traditional Books
- 2. Identifying Physical Science Paper 1 November 201
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
- 3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Physical Science Paper 1 November 201
  - User-Friendly Interface
- 4. Exploring eBook Recommendations from Physical Science Paper 1 November 201
  - Personalized Recommendations
  - Physical Science Paper 1 November 201 User Reviews and Ratings
  - Physical Science Paper 1 November 201 and Bestseller Lists
- 5. Accessing Physical Science Paper 1 November 201 Free and Paid eBooks

- Physical Science Paper 1 November 201 Public Domain eBooks
- Physical Science Paper 1 November 201 eBook Subscription Services
- Physical Science Paper 1 November 201 Budget-Friendly Options
- 6. Navigating Physical Science Paper 1 November 201 eBook Formats
  - o ePub, PDF, MOBI, and More
  - Physical Science Paper 1 November 201 Compatibility with Devices
  - Physical Science Paper 1 November 201 Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Physical Science Paper 1 November 201
  - Highlighting and Note-Taking Physical Science Paper 1 November 201
  - Interactive Elements Physical Science Paper 1 November 201
- 8. Staying Engaged with Physical Science Paper 1 November 201
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Physical Science Paper 1 November 201
- 9. Balancing eBooks and Physical Books Physical Science Paper 1 November 201
  - Benefits of a Digital Library
  - o Creating a Diverse Reading Collection Physical Science Paper 1 November 201
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Physical Science Paper 1 November 201
  - Setting Reading Goals Physical Science Paper 1 November 201
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Physical Science Paper 1 November 201
  - Fact-Checking eBook Content of Physical Science Paper 1 November 201
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development

- Exploring Educational eBooks
- 14. Embracing eBook Trends
  - Integration of Multimedia Elements
  - Interactive and Gamified eBooks

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