**Mathematics for A-level Science**

**Indices lesson plan**

Description: A 15-minute lesson to revise indices from Mathematics for application to

A-level Science.

Required materials: Project PowerPoint, copies of worksheet

Vocabulary: Index, Power, Exponent, Axiom, Law

Learning objectives:

1. Students will be able to understand what an index is and why it is used.
2. Students will be able to simplify and solve basic algebraic expressions involving indices.
3. Students will be able to solve applied questions involving indices.

Key questions:

* How do indices simplify multiplication?
* What are the basic operations of indices?

Proposed structure:

* Begin with multiplying 2 × 2 × 2 × 2 × 2 × 2 × 2 × 2 and inviting students to write out the question. Comment on the length of the question and ask if we can simplify this so there is less to write.

**Answers to the questions on the worksheet are available on** [**e-AQA**](https://signon.aqa.org.uk/sso/jsp/login.jsp?site2pstoretoken=v1.4~AF33DB4F~4A81154507A0B7085D7798809964E8E4E23D4C788ABE0516552B12E951ED249DAB2AE4A2F10EF9C457804AF2944B7D40FF6725C56462AE4475F1F047DA2CD9DC2A9D8D58E8D16F6199E2496E2EAA6C2A2DE730254F0E6AD1F59ED726CF75E8237EFE35DA33590BBF70CF4428FE626076F4DB25AD50C59966AB4A9371F54A7A7CF7CA67B6E51CE708C7D61FE333E281C177B0091AB34583332E9341F2C7C20B3E2AF07674A908FBBF436D471A289A961295E7B001470DECB6&p_error_code=&p_submit_url=https%3A%2F%2Fsignon.aqa.org.uk%2Fsso%2Fauth&p_cancel_url=https%3A%2F%2Fextranet.aqa.org.uk&ssousername=) **in the Secure Key Materials section.**