

# GCSE Additional Science: Physics

## Acceleration

30 slides

 11 Flash activities

 Accompanied by **Speed and Acceleration** worksheet

Covering:

- What is acceleration?
- Graphing acceleration
- Force, mass and acceleration



For AQA, OCR Twenty-First Century GCSE Science, OCR Gateway and Edexcel

## Atoms and Isotopes

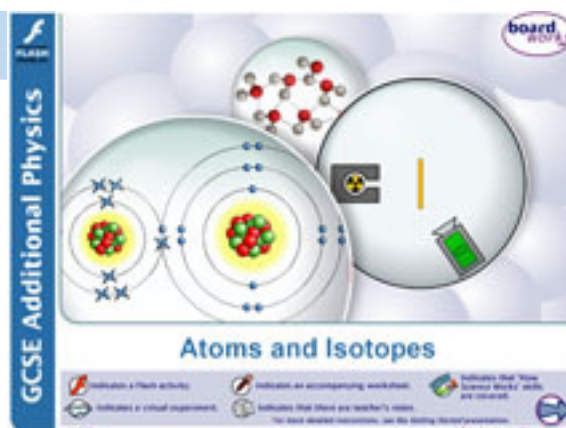
23 slides

 8 Flash activities

 Accompanied by **Radioactive Substances** worksheet

Covering:

- Models of the atom
- Atoms, ions and isotopes



For AQA, OCR Twenty-First Century GCSE Science and Edexcel

## Car Safety

25 slides

 8 Flash activities

 Accompanied by **Momentum and Collisions** worksheet

Covering:

- Making cars safer
- Preventing accidents
- Forces in collisions





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# GCSE Additional Science: Physics

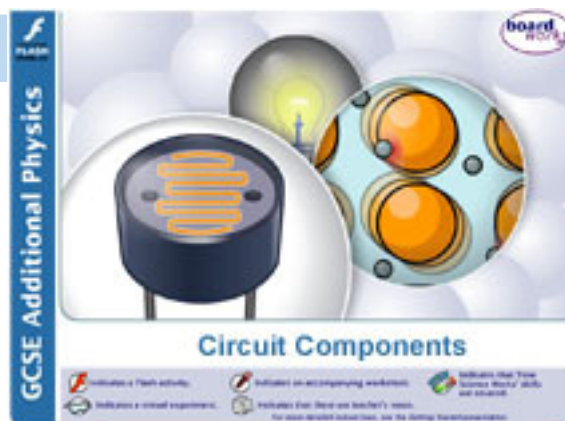
## Circuit Components

20 slides

-  9 Flash activities
-  Accompanied by **Components in Series and Parallel** worksheet

Covering:

- Filament bulbs
- Diodes
- Using resistance



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## Current, Voltage and Resistance

31 slides

-  11 Flash activities
-  Accompanied by **Electrical Circuits** worksheet

Covering:

- What is resistance?
- Current and voltage
- Ohm's law
- What affects resistance?



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## Effects of Static Electricity

28 slides

-  13 Flash activities
-  Accompanied by **Static Electricity** worksheet

Covering:

- Electrostatic phenomena
- Using static electricity
- Problems with static electricity




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# GCSE Additional Science: Physics

## Elasticity

14 slides

 6 Flash activities

Covering:

- Elasticity



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## Electrical Circuits

31 slides

 11 Flash activities

 Accompanied by **Electrical Circuits** worksheet

Covering:


- Making a circuit
- Representing circuits
- Introducing current and voltage



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## Electrical Power

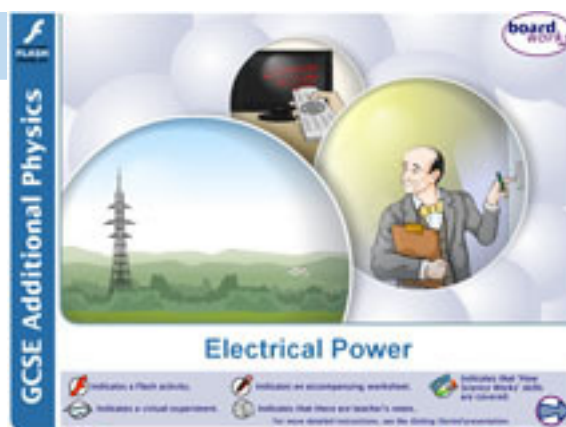
15 slides

 4 Flash activities

 Accompanied by **Electricity to the Home** worksheet

Covering:

- Electrical power



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# GCSE Additional Science: Physics

## Electrical Wiring and Safety

25 slides

 11 Flash activities

 Accompanied by ***Electricity to the Home*** worksheet

Covering:

- Electrical safety
- Electrical cables and plugs
- Fuses and circuit breakers



For AQA and OCR Gateway

## Electricity Supply

13 slides

 4 Flash activities

 Accompanied by ***Electricity to the Home*** worksheet

Covering:

- AC and DC



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## Falling Objects

24 slides

 9 Flash activities

 Accompanied by ***Stopping and Falling*** worksheet

Covering:

- Gravity and weight
- Friction and air resistance
- Terminal velocity



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# GCSE Additional Science: Physics

## Forces

34 slides

 11 Flash activities

 Accompanied by **Forces** worksheet

Covering:

- Action and reaction forces
- Friction
- Force diagrams
- Resultant forces



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## Generators

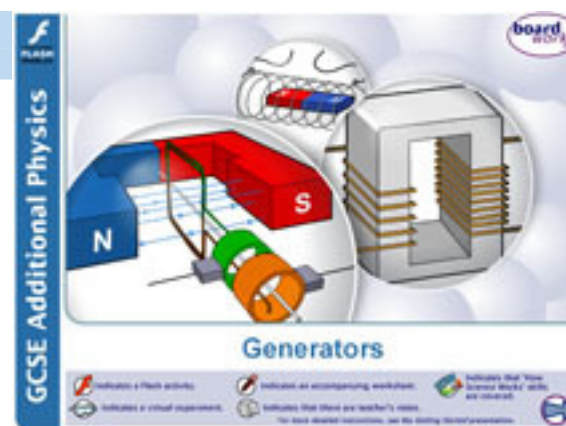
19 slides

 10 Flash activities

 Accompanied by **Generators and Motors** worksheet

Covering:

- Electromagnetic induction
- Transformers



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## Half-life

15 slides

 6 Flash activities

 Accompanied by **Radiation and Half-life** worksheet

Covering:

- Half-life
- Using half-life



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# GCSE Additional Science: Physics

## Ionizing Radiation

30 slides

 13 Flash activities

 Accompanied by **Radiation and Half-life** worksheet

Covering:

- Alpha, beta, gamma
- Using ionizing radiation
- Dangers of ionizing radiation



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## Momentum and Collisions

27 slides

 9 Flash activities

 Accompanied by **Momentum and Collisions** worksheet

Covering:

- What is momentum?
- Conservation of momentum
- Changes in momentum



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## Motors

10 slides

 4 Flash activities

 Accompanied by **Generators and Motors** worksheet

Covering:

- Motors



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# GCSE Additional Science: Physics

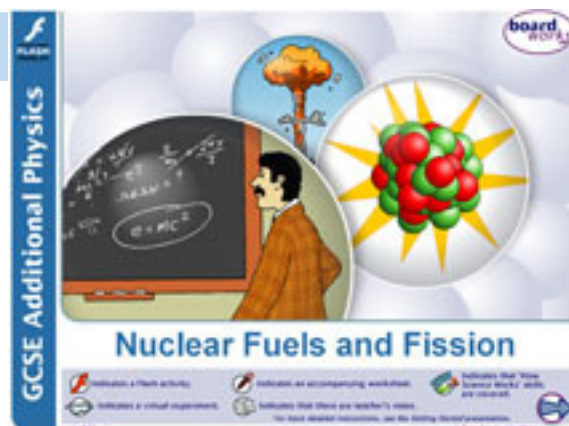
## Nuclear Fuels and Fission

33 slides

- 13 Flash activities
- Accompanied by **Nuclear Power** worksheet

Covering:

- Energy from atoms
- Nuclear fission
- Chain reactions
- Nuclear waste



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## Nuclear Fusion

24 slides

- 10 Flash activities
- Accompanied by **Nuclear Power** worksheet

Covering:

- What is fusion?
- Problems with using fusion
- Fusion research



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## Potential and Kinetic Energy

36 slides

- 11 Flash activities
- Accompanied by **Potential and Kinetic Energy** worksheet

Covering:

- Gravitational potential energy
- Kinetic energy
- Conservation of energy
- Falling objects



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# GCSE Additional Science: Physics

## Powering Cars

28 slides

 12 Flash activities

 Accompanied by **Work and Power** worksheet

Covering:

- Fuel consumption
- Saving fuel
- Alternative fuels



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## Radioactive Decay

12 slides

 5 Flash activities

 Accompanied by **Radiation and Half-life** worksheet

Covering:


- Radioactive decay



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## Radioactive Substances

12 slides

 4 Flash activities

 Accompanied by **Radioactive Substances** Worksheet

Covering:

- What is radiation?
- Background radiation



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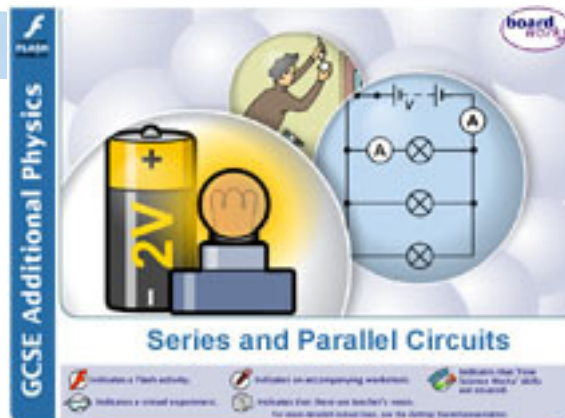
## Series and Parallel Circuits

19 slides

- 7 Flash activities
- Accompanied by **Components in Series and Parallel** worksheet

Covering:

- Series circuits
- Parallel circuits



For AQA and OCR Twenty-First Century GCSE Science

## Speed

29 slides

- 12 Flash activities
- Accompanied by **Speed and Acceleration** worksheet

Covering:

- Speed and velocity
- Calculating speed
- Distance–time graphs



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## Stars

19 slides

- 11 Flash activities
- Accompanied by **Stars** worksheet

Covering:

- The source of a star's energy
- The life cycle of a star




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# GCSE Additional Science: Physics

## Static Electricity

20 slides

 8 Flash activities

 Accompanied by **Static Electricity** worksheet

Covering:

- Charging materials
- Electrostatic forces



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## Stopping Distances

22 slides

 7 Flash activities

 Accompanied by **Stopping and Falling** worksheet

Covering:

- Introducing stopping distances
- What affects breaking distance?
- Analysing stopping distance



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## Ultrasound

24 slides

 11 Flash activities

Covering:

- Waves
- Sound and ultrasound



For OCR Gateway and Edexcel

# GCSE Additional Science: Physics

## Work and Power

27 slides

 10 Flash activities

 Accompanied by **Work and Power** worksheet

Covering:

- What is work?
- What is power?
- Power, force and speed



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