SP11 Static

Electric fields

Define “electric field”

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What do field lines tell you about an electric field? …………………………………………………………………………………………..

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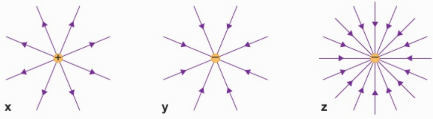
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What is meant by a uniform field?

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Dangers and uses of static

Why is earthing needed?

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Describe how to measure current and potential difference in a circuit

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Describe how insecticide sprayers work?

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Charges and static electricity

Describe how an insulator can become charged using friction.

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Describe how an insulator can gain an induced charge.

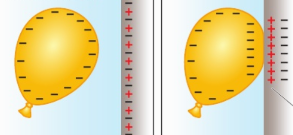
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What is charging by induction? Use the diagram to in your explanation.



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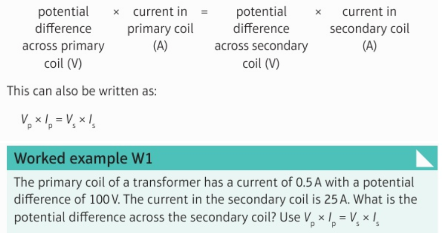
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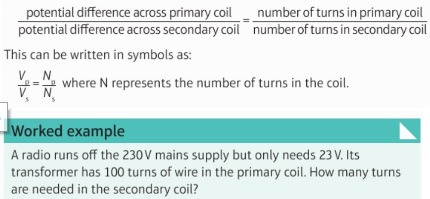
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SP12/13 Magnetic forces

Transformers and energy



The national grid



Magnetic forces

How is the force on a wire in a magnetic field used to make an electric motor turn?

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What does the split ring commutator do?

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How is induction used in generators to produce alternating current?

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How is induction used in dynamos to produce direct current?

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How is induction used in microphones? (include the coil and magnet in your description)

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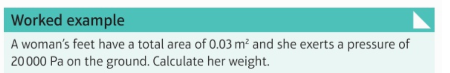
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SP14/15 Particles and forces

Pressure in fluids

State the equations to calculate pressure

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How does the pressure in a liquid change with depth and density?

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Pressure and upthrust

Why does pressure in a lquid depend on density and depth?

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State the equation for pressure due to a column of liquid

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Why do somethings float and some things sink?

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Transferring Energy

Describe how particles cause pressure.

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Explain why doing work on a gas increases its temperature.

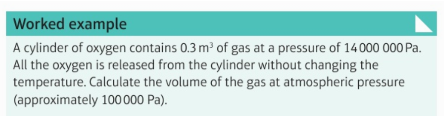
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Electrical Safety

Describe why earth wires are needed in plugs

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Explain how fuses make circuits safe

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Explain the advantage of circuit breakers over fuses

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