

3.2 Listening

preparing for a lecture • predicting lecture content • making notes

A Study the slides from a lecture about electric circuits.

- 1 What do you expect to learn in this lecture? Make a list of points.
- 2 Write down key words you expect to hear.
- 3 How are you going to prepare for this lecture?

B Listen to Part 1 of the lecture.

- 1 What exactly is the lecturer going to talk about today? Tick the topic(s) you heard.
 - Ohm's law and simple electric circuits ____
 - Ohm's law and complicated electric circuits ____
 - Exceptions to Ohm's law ____
- 2 What reason does the lecturer give for talking about this topic?
- 3 What is the best way to organize notes for this lecture?

C Listen to Part 2 of the lecture.

- 1 What does the lecturer say about the history behind Ohm's law?
- 2 What is Ohm's law?
- 3 What analogy does the lecturer use to illustrate the law?
- 4 What do you expect to hear in the next part of the lecture?

D Listen to Part 3 of the lecture.

- 1 How could you write notes for this part?
- 2 What is the quantity discussed and how is it defined?

E Listen to Part 4 of the lecture.

- 1 Check your definition of the quantity discussed.
- 2 What is the research task?

F Listen and say whether these sentences are true or false according to the lecture.

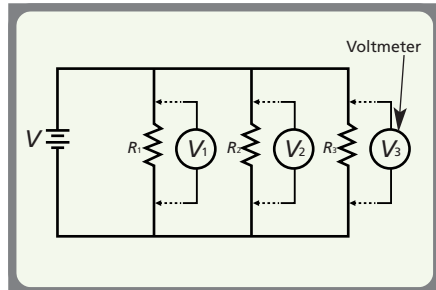
- 1 ____
- 2 ____
- 3 ____
- 4 ____
- 5 ____

G What does Slide 5 show? Discuss:

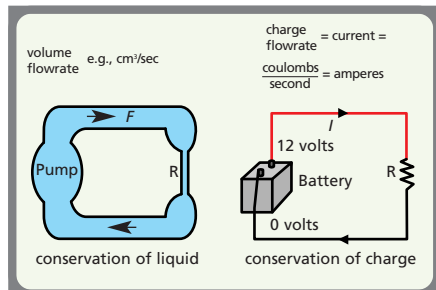
- 1 the missing units and symbols
- 2 the missing numbers for the quantities (assuming they are from a circuit that obeys Ohm's law)

$$V = I \times R$$

Slide 1: Ohm's law



Slide 2: An electrical circuit



Slide 3: Current law and flow rate

$$P = V \times I = \frac{V^2}{R}$$

Slide 4: Joule's law

Quantity	Voltage	Current	Resistance	Power
Symbol				
Unit				
Unit symbol				
Circuit 1		3	1	
Circuit 2	6	3		
Circuit 3	4		2	

Slide 5: Quantities, units symbols and examples of Ohm's law and Joule's law