



Ohm Comforts



LESSON PLANNING- ORDER

Order/ Lesson No.	Content	Homework	Resources
1	Intro to course (WHAT IS PHYSICS), issue outcomes, Intro to Ohm Comforts Safety, video	ELECTRICITY title page The Atom sheet Locate the main electrical switch to turn off all electricity to the house. This is a red large switch.	http://dingo.care2.com/cards/flash/5409/galaxy.swf (NB this contains a rude word. Please warn the students and cough loudly at the end) https://www.youtube.com/watch?v=p_o4aY7xkXg http://htwins.net/scale2/?bordercolor=white Atom sheet- I'd like to get this up to GLOW or the website and students download at home. Give copies for those who don't have computer access. www.mrsphysics.co.uk http://www.twothirtyvolts.org.uk/electrical-safety/around-your-home/ http://www.classtools.net/education-games-php/timer/
2+ 3	Go through atom homework. Static, what is static, experiments including the VdG	Locate the mains switch in your home write up the experiment, mainly as pictures with small amount of text..	Static experiments sheets. http://www.kasuku.ch/pdf/monde_etrange_atomes/EN_amazing_world_atoms.pdf Order electrostatics tray (rods, watchglasses, salt and pepper mixed, loo roll cloths etc)



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4	What is a circuit? Testing for conduction starting with a torch lamp (or go from what is a circuit to why draw circuit symbols)	Draw Symbols and Circuits	Build a circuit with one lamp (2.5V), 1 cell and 1 wire only. Add in holders, add in switch, Equipment: Lamps, cells, leads, switches. If possible get a box of cells rather than removing them from holders which wrecks the springs. Starting Science Book 1 pp 85+ Marbles (all the same size) Circuit symbol sheet. (website)
5	Conductors & insulator		Tray of conductors and insulators. Cells lamps, leads and switches. SAFETY Do not allow students to go near sockets or electrical appliances
6	Current Voltage & Resistance (written exercise + quiz, terms and words)	Learn 16 words and definitions in word list	Definition and word boards . NB Do NOT give the lower ability students the definitions on the cards, this is a much harder task. For most students add the word on a card to the definition on the board. Activinspire definition sheet, white boards if required.
7+ 8	Meters (effect on resistance and current of long wires)		Meter table (showing ammeter, voltmeter and ohmmeter) Meter sheet showing the connections. Both of these can be cut out and stuck in. Conductors and insulators tray can be used as previous.
8,9	Building Circuits briefly introduce series and parallel	Meters	Laminated fault finding cards, one per group for checking their circuits. ppp of Building circuits for if you want to keep students together, or better still give them the small printed sheets with the 7 circuit descriptions on. 3 xLamps 2 x switches 7x leads 2 x cells (per group) + spares
9,10	Explanation of series and parallel from the model	Review Definitions start revision	Flipchart paper, or board.
11	Measuring Current and Voltage in series and parallel	Electrical Dominoes Revision	



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12	Fault finding	Revision	11 fault finding boards and repair kits (please check in and out at the end of each lesson), fault finding laminated sheets, multimeters
13	Fruity Batteries	Students can try to bring in some fruit or veg before this lesson and have some in reserve	Fruit and veg, different metals as electrodes, croc clips, leads.
14	Assessment Introduction to the Dolls House	Give students opportunity to build something for the doll's house (do not move, or change anything already there), things created include a bbq, fridge, revolving microwave, door bell.	Tests in H219 (please return after use)
15	Go through test + start design and make or Ohm's Law	Plan for the design and make	For Ohm's Law, ceramic mounted resistors, leads, power supplies and 2 multimeters per group
16+	Students design and make		Motors, wires, cells, potentiometers you might want to look at the electronic boards etc.