1.	7J Current Electricity Switches and Current	Model Examp The pipes let the hot water flow through them.	Die The boler transfers energy to the water and the pump pushes the water through the pipes.	Adding Bulbs	If you add bulbs into a series circuit the current gets smaller and the bulbs dimmer. In a parallel circuit if you add bulbs on different branches they stay bright.
Component	t Something in a circuit. Closing a switch completes the	In the radiator, energ from the hot water to	r is transferred All the water stays in the pipes. If you measure the amount of water flowing, you will get the same reading at X and Y, but the water at Y would be string less energy than the water at X.	4. C	hanging the Current A way of saying how much
Switch	circuit allowing the current to flow.		•Boiler represents the cell •Pines represent the wires	Voltago	energy is transferred by electricity. The voltage of the
Bulbs	Electricity flowing through makes the filament glow.	Model Example	•The radiator represents a	voltage	cell helps push the charges around the circuit.
Current	The amount of electricity flowing around a circuit. Measured in amperes (A).	Explanation	•Water represents the current	Voltmeter	Measured in volts (V). Used to measure voltage. Voltmeters are connected
Current in a Series Circuit	Current is not used up as it goes around the circuit, it is the same everywhere.	3. Serie Series Circuit	es and Parallel Circuits A circuit with all the components in one loop.	Connecting	across a component.
Ammeter	Used to measure current.			a voitmeter	
— <b> </b> ⊢	Cell circuit symbol	Series Circuit			
-	Bulb circuit symbol	Diagram		Voltage in a Series	The voltage across all the components adds up the
<u> </u>	Switch circuit symbol	Parallel Circuit	A circuit with branches that split apart and join again.	Circuit	voltage across the cell. How difficult it is for
-A-	Ammeter circuit symbol	Parallal		Resistance	electricity to flow through something.
		Parallel	Ϋ́		A component that makes it

Risk

		circuit	spine upune und join ugun			
-A-	Ammeter circuit symbol	Parallel				
2.	Models for Circuits	Circuit				
Models	A way of showing or representing something.	Diagram				
Advantages of Using Models	Allow us to help think about complicated ideas in science.	Parallel	Each bulb/component of turned on individually.			
Charges	An electric current is a flow of charges carrying energy from the cells to the	Circuit Advantages	components in other branches stay on (unlike series circuit).			
Conductors	components. Charges can move through them easily (e.g. metals).	Current in a Parallel	The current splits when reaches a branch. The current in all the branch			
Insulators	Charges cannot move through them easily.	Circuit	add up to the current in main part of the circuit.			

The bolier transfers energy to the water and the pump pushes the water through the pipes.	Adding Bulbs	If you add bulbs into a series circuit the current gets smaller and the bulbs	Electricity Risks	Can cause fi the body an from workin	res, burns to d stop the heart g.
x y		dimmer. In a parallel circuit if you add bulbs on different branches they stay bright.	Reducing	Don't touch bare metal parts of plugs, don't poke things into sockets, keep	
sferred All the water stays in the pipes. If you measure	4. Ch	nanging the Current	Risks	water away	from electricity,
oiler represents the cell		A way of saying how much energy is transferred by		into a socke a damaged v	t and never use wire.
ipes represent the wires he radiator represents a omponent	Voltage	electricity. The voltage of the cell helps push the charges around the circuit.	A wire that melts if t Fuse current is too high, I the circuit.		nelts if the o high, breaking
Vater represents the	Voltmeter	lised to measure voltage	Circuit	Cuts off the	current if it is
urrent	volumeter	Voltmeters are connected	Breaker	too high.	
and Parallel Circuits circuit with all the	Connecting	across a component.	Plug Wires	Live and neu an appliance wire is for sa	u <b>tral</b> wires make e work; <b>earth</b> afety.
mponents in one loop.	a Voltmeter			earth wire earth pin fuse neutral live pin	
	Voltage in a	The voltage across all the	Plug Diagram	wire	
	Series	components adds up the		neutral	
circuit with branches that	Circuit	voltage across the cell.		pin	The cable grip
lit apart and join again.	Resistance	How difficult it is for electricity to flow through something.		stops the wires being pulled from the pins.	
	Resistor	A component that makes it			
		difficult for electricity to flow-			
		educes size of current.		•	Memorised?
ch bulb/component can be	-(V)-	Voltmeter circuit symbol	1. Switches a Current	and	
rned on individually. If one lb/component breaks the		Resistor circuit symbol	2. Models for Circuits		
mponents in other anches stay on (unlike a	Variable resistor circuit symbol		3. Series and Parallel Circuits		
e current splits when it	5.	Using Electricity	4. Changing	the	
aches a branch. The	Hazard	Something that could cause harm.	Current		
d up to the current in the	Risk	The chance that a hazard	5. Using Electricity		

will cause harm.