

Speed Quizzing

Hydroelectric power plants use the power of what to produce electricity?

Water



What is the process whereby uranium atoms are broken down to release energy?

Nuclear fission



A fast-moving, review activity where students quiz each other, swap cards, then move on to someone new

Electricity Unit

32 Questions

Speed Quizzing - Electricity Unit

Everything in the world is made up of _____.	Electricity is created by the movement of these subatomic particles.
atoms	Electrons
This is the charge and location of an electron.	What is the difference between series and parallel circuits?
Negative and outside the nucleus	Series circuits are connected end-to-end while parallel circuits are connected side-by-side
Regarding parallel circuits, current is _____ between components.	Define current.
shared	Current is the number of electrons passing a given point each second.
How are voltmeters connected to a circuit?	What does a voltmeter measure?
In parallel	The voltage drop across two
Define electrical resistance.	What is the resistance of a substance that allows energy without hindrance?
Electrical resistance is the property of a substance that hinders electrical flow.	Conductors
What is the voltage drop across a 120 W light bulb if the resistance is 100 ohms and the current is 0.9 A?	A toaster has 10 ohms. What is the current flowing from a 240 V outlet?
90 V	1 A
Define power.	Define electrical energy.
Power is the rate at which electrical energy is used	The energy converted from one form to another in an electrical device

If a light bulb uses 75 J of energy and outputs 30 J of light, what is its efficiency?	Calculate the cost of electricity for a light bulb for 100 hours.
40%	
Define a renewable resource.	Give an example of a non-renewable resource.
A renewable resource is a resource that renews itself over the course of a normal human lifespan.	Oil, coal, natural gas
What is the process whereby uranium atoms are broken down to release energy?	Hydroelectric power uses the power of _____.
Nuclear fission	Water
What is the charge on an object if it has 3 protons and 5 electrons?	If an object has a net charge of -2, what will it do?
-2	
What makes an object neutral?	If you lose an electron, an object becomes _____.
It has the same number of protons and neutrons.	Positive because you are becoming less negative.
What causes a spark to occur?	Rubbing two objects together to create a charge is an example of charging by _____.
Sparks are produced as electrons jump from one substance to another.	Friction
State the 3 laws of electric charges.	Which law of electric charges explains why when a balloon is rubbed on your head, it will stick to the wall?
1) Opposites attract 2) Likes repel 3) Positive and negative charges attract neutral objects	Law 3

Define induction charging.	What is grounding?
An electric charge is transferred from one substance to another without direct contact.	Grounding is the process of removing a charge from an object.
What is the function of lightning rods?	Why is your car a good place to be during a lightning storm?
They allow the electricity to take a safe path through an object such as a building.	Its metal exterior allows the electricity to move around you without making contact.

- ✓ Challenge your students!
- ✓ Questions cover material directly from the lessons
- ✓ Get students up and moving around
- ✓ Very little preparation required

How to Implement

- Provide each student with a flash card
- Pair up students using the stand up/hands up/pair up method
- Partner A reads the question to Partner B, who answers. Partner A praises if correct or coaches if incorrect.
- Partners switch roles
- Students thank each other and switch cards.
- Partners raise their hands to find a new partner.
- Repeat for specified amount of time

Why Use Speed Quizzing?

- Prompts meaningful student conversation
- Review prior knowledge
- Review new terms/problems after a unit
- Gather student ideas
- Remediate weak skills
- Practice new skills