Electricity Grudge Ball

Grudge Ball Rules

Each group gets a question. If they get it right they automatically get to erase two X's from the board. They can take it from one team or split it. They can not commit suicide (take X's from themselves).

Before they take off these X's, though, they have a chance to increase their ability to get the other teams to hate them. They get to shoot the Nerf ball (nerf bball hoop). There are two lines with masking tape. One is a two point line while the other is a three pointer.

When a team is knocked off they still take turns. To get back on the board they need to get the question right and make the basket.

1. The attraction or repulsion between electric charges is called a(n)?

    a. Electric field
    b. Electric force
    c. Electron
    d. Static electricity

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C. Resistance
D. Voltage

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4. True or False: in a series circuit, all parts of the circuit are connected in a single path.

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TRUE

5. True or False: Conduction is the process of charging an object without touching it.

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False

6. True or False: Electrical resistance is low in a good conductor.

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True

7. What would happen if the circuits in your school building were series circuits? Explain.

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If one device in the building failed, all the others would stop working too. The single path for the current would be broken.

8. The area of a magnet where the magnetic force is strongest is a

a. Magnetic pole
b. Magnetic field
c. Magnetic field line
d. magnetosphere

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9. The positively charged particles within atoms are

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10. True or false: Magnetic Field Lines map out the magnetic field around a magnet.

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TRUE

11. True or False. Convection is a method of transferring charges between objects.

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FALSE

12. True or False. Charges flow from places of higher electric potential energy to places of lower electrical potential energy.

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TRUE

13. What happens when an object gains electrons?

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It becomes negatively charged.

14. How do you strengthen an electromagnet?

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1. Increase current
2. Add more loops/coils
3. Move coils closer together
4. Stronger ferromagnetic core

15. What do switches and diodes have in common?

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Both control electric current

16. How are switches and diodes different?

16. How are switches and diodes different?

Switches let flow of electricity go both ways. Diodes only let electricity flow in one direction.

17. How does the length of a wire affect resistance?

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Short wire = less resistance
Long wire = more resistance

18. How does the diameter (thickness) of a wire affect resistance?

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Thicker wire = less resistance
Thinner wire = more resistance

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1. Control the flow of electricity
2. Transform energy into heat