

## Static Electricity Demo Skill Builder

- Which particle of the atom does the atom most easily give up?
  - Neutron
  - Electron
  - Proton
  - Megatron
  - Ultron
- The form of energy is caused by the movement of electrons.
  - Electric
  - Light
  - Chemical
  - Mechanical
  - Heat
- The accumulation of excess electrons on an object is known as
  - Current electricity
  - Static electricity
- Which of the following situations are true?
  - $+ \rightarrow \leftarrow +$
  - $- \rightarrow \leftarrow -$
  - $- \rightarrow \leftarrow +$
  - They are all true
  - None are true
- Electrons have a \_\_\_\_\_ charge.
  - Positive
  - Negative
  - Neutral
  - Variable

- Static discharge (a spark) is caused when

\_\_\_\_\_  
\_\_\_\_\_.

- Metals and other materials in which electrons are free to move are known as \_\_\_\_\_
- Plastic and other materials which electrons do not easily move through are known as \_\_\_\_\_
- Describe charging by contact.

\_\_\_\_\_  
\_\_\_\_\_.

- Describe charging by induction.

\_\_\_\_\_  
\_\_\_\_\_.

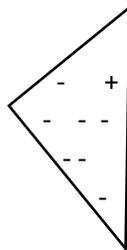
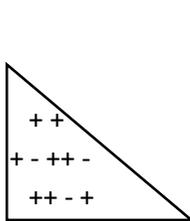
11. Which of these demonstrated how static electricity builds naturally?

- a. Van de Graaff Generator
- b. Tesla Coil

12. In the box, create a composite (combined) drawing of a Van de Graaff generator and the drawings of how lightning is formed on page 197. Your drawing should be able to identify how what happens inside of a cloud is similar to a Van de Graaff generator. AND the similarity between what comes OUT of the cloud/generator. Add labels and captions to increase understanding.



13. Count the + and – in each shape and decide if the objects would attract or repel.



attract

repel

14. Explain why understanding the conditions which cause static electricity is important. Be specific.

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15. Explain why if charge cannot be created or destroyed, electrically neutral objects can become electrically charged.

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