



## How does matter become charged?

### Electric Charges

Touch a metal doorknob after running across a carpet. A spark of static electricity might give you a shock.



Atoms are the tiny building blocks of matter. Almost all atoms have three kinds of particles. Some particles have a negative charge. Some have a positive charge. Some particles have no charge. The number of negative and positive particles in matter is usually the same.

Sometimes an atom has more of one kind of particle than another kind. **Static electricity** is the result. Static means "not moving," and static electricity usually stays in one place. But eventually, it does move. It may move slowly or very quickly. Moving charges make electrical energy. This energy changes into heat, light, and sound energy.



### Static Electricity

Storm clouds become charged when particles move between atoms. The positive particles usually gather near the top of the clouds. The negative particles move toward the bottom of the clouds. The static electricity is released as lightning. Lightning heats the air around it. The heated air glows. Lightning makes the sound that we call thunder.



## How does matter become charged?

### 1 Select the correct answer.

A\_ What does static mean?

MOVING

NOT MOVING

B\_ What are atoms?

TINY BUILDING BLOCKS OF MATTER

STATIC ELECTRICITY

LIGHTING

ELECTRICAL ENERGY

C\_ Where are the positive particles in a storm cloud?

TOP

MIDDLE

BOTTOM

D\_ Where are the negative particles in a storm cloud?

TOP

MIDDLE

BOTTOM

## Match the sentences:

- Atoms are slowly or very quickly.
- Almost all atoms have that we call thunder.
- Static electricity is when static electricity is released as lighting.
- Static electricity may move an atom has more of one kind of particle than another kind.
- In a storm cloud the tiny building blocks of matter.
- Lighting makes the sound three kinds of particles.