



Shock treatment

“I don’t always get upset when there is no power/electricity.

But if a cricket match is being telecast live and the lights go off, then I feel very annoyed. I feel so irritated that it makes me feel like giving an electric shock to those who have cut off our power. A fantastic shock!” This made grandma and grandpa laugh.

Dad said, “Mihir, how can you give a shock if there is no electricity? Wouldn’t you need electricity to give a shock?”

Even as dad was finishing his question, Mihir answered “Then...then, we will create electricity. But we will give them a shock...”



Dad was about to say something but mom said, "He is absolutely right. We have to produce electricity to give a shock. And power required to give a shock can be easily produced at home.

If no one is ready to believe this, let the first shock be given to dad...how's the idea?" Dad looked as if he had already received a shock.

Grandpa adjusted his spectacles and said, "Don't you think it will be expensive to produce electricity at home? And after spending so much, what do we do? We give shocks to our family members! No, no, I don't think this shock treatment is a good idea."

Grandma smirked, "Someone is quite scared! Tell me one thing, if we produce electricity at home without spending any money, then who will be the first one to take the shock? Tell me, come on."

Mihir opened his eyes wide and looked at grandpa and dad, while dad and grandpa looked at him with narrowed eyes.

Suddenly, grandpa got up and said, "Okay I am ready, go ahead and produce electricity."

Worried, dad said to mom, "Don't try something fantastic. Go ahead only if you know it well. Otherwise the people conducting the experiment will be the first ones to get a shock. Be careful!"

Grandma and mom laughed mysteriously.

Grandpa raised his eyebrows and said, "What will you need to create electricity? Generator, copper wires, transformer and a strong



meter to measure the current? Shall I get it for you? I am just waiting to receive this 'homemade shock'."

Grandma said firmly, "If you are so enthusiastic, take this list—a fresh yellow lemon, a steel u-pin used to pin up hair, copper wire and you.

If at all you want to measure the current of electricity, then you will need a galvanometer."

Mihir ran about to get all the things but he couldn't get a galvanometer.

Now all of us sat in a circle.

Grandma straightened the steel u-pin.

She cut a copper wire of the same length.

She rubbed those wires with a kitchen knife.

Now those wires shone brightly as they had been rubbed vigorously against a knife.

Then mom pierced the lemon with the steel wire. She pierced it so sharply that the wire reached the middle of the lemon.

Then the copper wire was pierced into the lemon at a distance of 2 cm from the steel wire.

Mom said, "NOW ELECTRICITY IS BEING GENERATED."

We could understand nothing.



Where was the electricity? How will the shock be given?

We thought grandma and mom were fooling us. We looked at each other and smiled.....

Grandma looked at grandpa and said, "Come on and experience the 'lemon shock'."

Grandpa got up with a swagger, wiped his spectacles and said to grandma, "Show me your electricity and its shock!"

Grandpa put out his tongue as soon as grandma asked him.

Grandma gently touched grandpa's tongue with the ends of the two wires protruding from the lemon...

and what a miracle...grandpa gave a start as if he had received a shock!!

Dad couldn't believe his eyes.

Just then Mihir gently put those wires on his tongue.

Mihir squealed, "Wow! My tongue tingled. I felt as if I received a shock!! mom, there is something fishy about this lemon. What will happen if these wires are joined to a galvanometer?"

Mom smiled with satisfaction and said, "If these two ends are joined to a galvanometer, the needle will move. And we can measure the electricity that has been generated."

Now dad's curiosity was aroused.



He asked, "Can we generate electricity with fruits like orange, apple or an onion instead of a lemon?"

"Certainly", said grandma.

"A chemical process takes place between the acid in the lemon and the metal in the wires. When the wires touch the tongue or galvanometer, the electric circuit is completed and we receive a mild shock. It is so mild that what we experience is just a tingling sensation.

Onion, apple and orange are acidic in nature. The more sour the substance, greater will be the current generated."

Mihir instantly said, "Now I want an 'orange' shock!"

Grandpa pulled Mihir toward him and said, "Come, I will give you a sweet and sour shock!"

Do you just eat fruits or experience their 'shock' too?



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