

Aspire International School

Science Department

Year 4

2023/2024



## **<u>1 Read the sentences and then answer the questions.</u>**

Vikal's classroom is cold and dark in winter. Before Vikal starts writing in his workbook, he rubs his hands together. The teacher switches on the light so the class can see the whiteboard better. The teacher shows the class a video on her computer. At break Vikal eats a banana. He then plays football with his friends until he hears the bell ring at the end of break.

a Why does Vikal rub his hands together?

To make them warm

b Draw an energy chain to show the energy change when he does this.

Movement energy  $\rightarrow$  heat energy

c Describe the energy change that makes the light work.

Electrical energy is changed in the light bulb into light energy.

d Draw an energy chain to show the energy changes that happen in the teacher's computer.

Electrical energy  $\rightarrow$  light energy + heat energy + sound energy

e Where does Vikal get energy from to play football?

The banana

f Draw an energy chain of the energy changes that allow Vikal to kick the ball.

Energy in food  $\rightarrow$  movement energy in legs

g Name the form of energy that tells Vikal that break has ended.

Sound energy

h Why is he able to hear the sound?

The sound energy moves/is transferred from the bell through the air to Vikal's ears.

SCHO

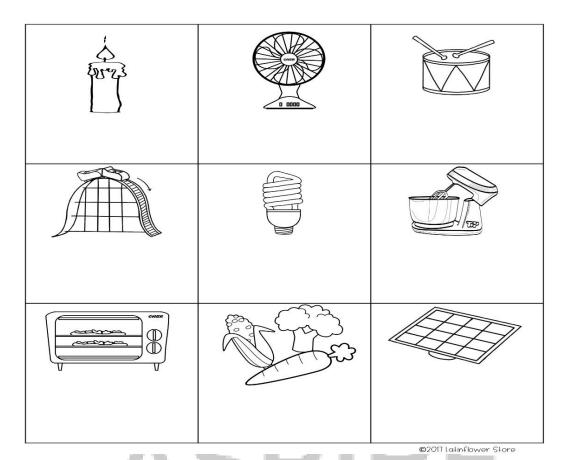
Year 4

Science Department





## 2-Describe the energy chain in each of the following pictures:



- 1. Fire change to heat + light
- 2. Electricity changes to movement + sound
- 3. Energy from food changes to movement + sound SCHOOL
- 4. Electricity changes to movement
- 5. Electricity changes to light
- 6. Electricity changes to movement + sound
- 7. Electricity changes to heat
- 8. Energy from sun change to growth of the plant
- 9. Energy from sun change to electricity