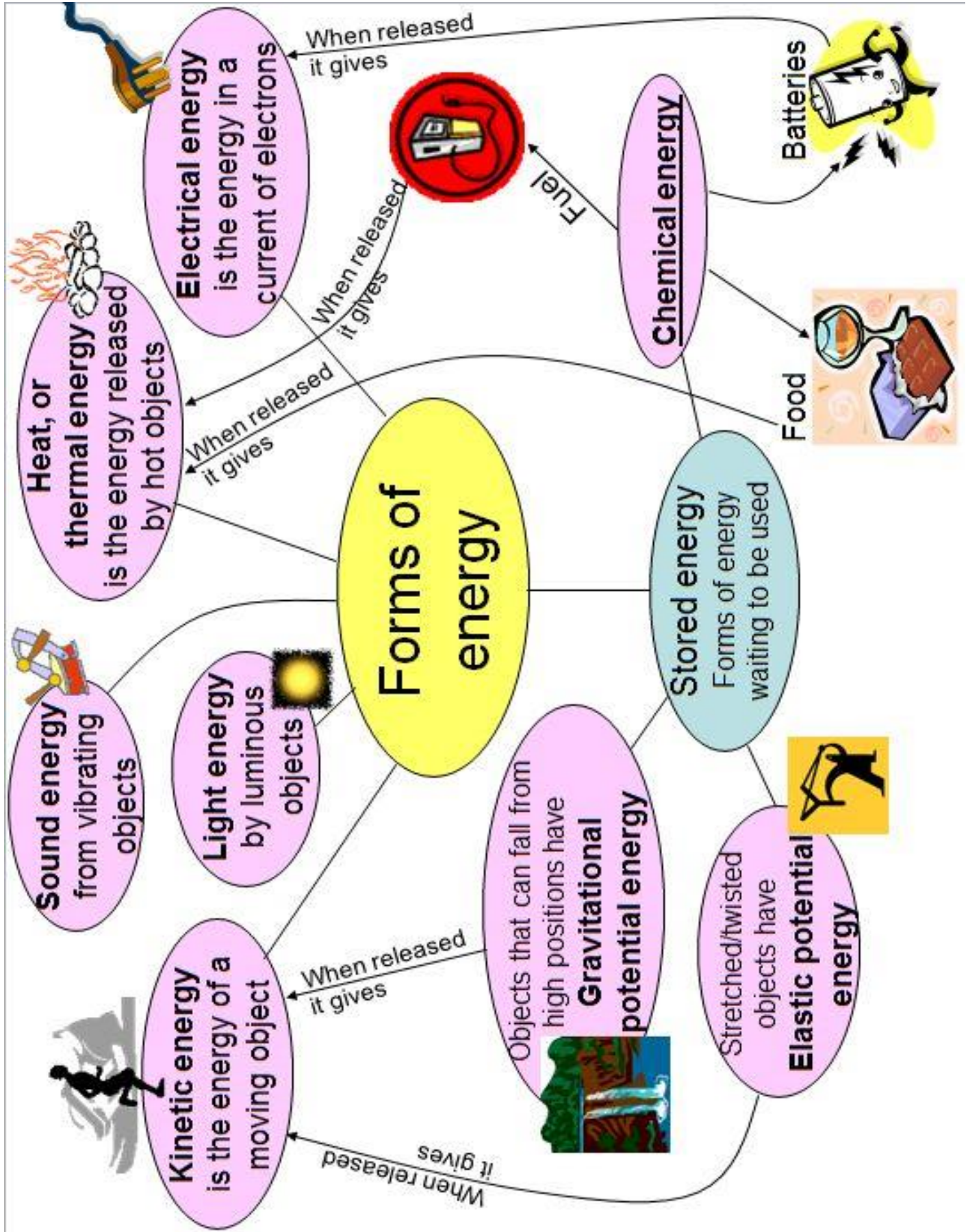


FORMS OF ENERGY NOTES (Part 2)





Most forms of energy can be transformed into other forms.

This happens in most everyday activities.



The **LAW OF CONSERVATION OF ENERGY** states that...

ENERGY CANNOT BE CREATED OR DESTROYED; ENERGY CAN ONLY CHANGE FORM.

Energy can change from one form to another, although in the process some energy is always converted to heat.

Question: Why is it that no machine (like a toaster, car, or light bulb), is ever 100% efficient?

SOME ENERGY IS TRANSFORMED TO HEAT VIA FRICTION

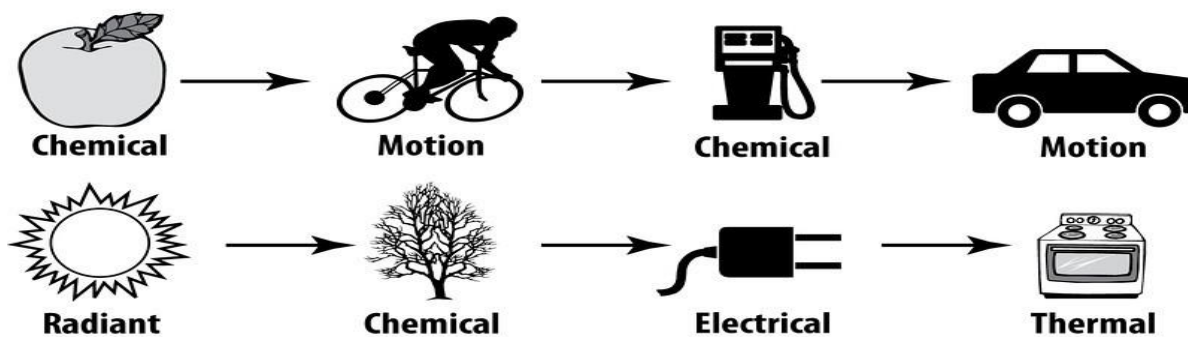


Example: A spinning top's kinetic energy is transformed into thermal energy through friction, causing it to eventually stop spinning.

Example: The chemical energy in gasoline is transformed into mechanical energy in an automobile engine. Energy, in the form of heat, is almost always one of the products of energy transformations.



Energy Transformations



Fill in the blanks:

1. A toaster transforms **ELECTRICAL** energy to **THERMAL** energy to toast bread.
2. A cell phone transforms **ELECTRICAL** energy to **ELECTROMAGNETIC** energy that travels to other phones.
3. Your body transforms the **CHEMICAL** energy in food to **MECHANICAL** energy you use to play kickball.
4. A pendulum continuously transforms energy from **KINETIC ENERGY** to **POTENTIAL ENERGY** and back.