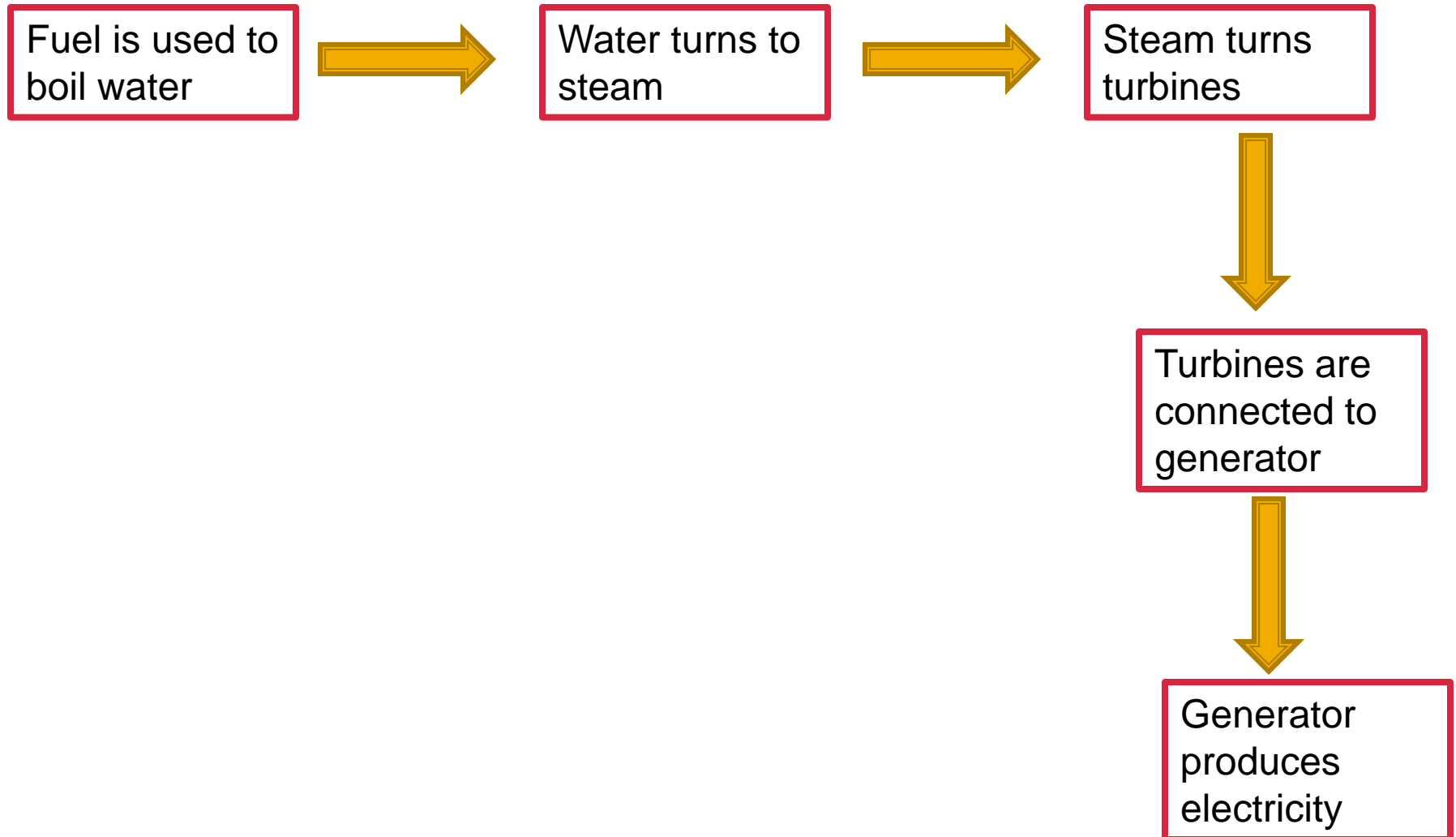


ELECTRICITY PRODUCTION

HOW ELECTRICITY IS PRODUCED

- Water is boiled
- Water turns to steam
- Steam turns turbines
- Turbines are attached to a generator
- Generator produces electricity

HOW ELECTRICITY IS PRODUCED



ENERGY USAGE

HOME

- Past – candle, oil lamp
- Present – computer, television, cell phone, radio, microwave, washing machine, toaster

WORK – FARM

- Past – animals used in the field
- Present – tractor, fertilizer spreader, milking machine

WORK – OFFICE

- Present – fax machine, printer, computer, microwave, refrigerator, photocopier

INDUSTRY

- Past – smoke signals
- Present – electronic equipment and satellites

TRANSPORT

- Past – horse and cart
- Present – cars, trucks, planes, trains, ships

LEISURE

- Past – a board game, outside games such as cricket, football
- Present – computer game, cell phone activities, internet browsing

ENERGY CONSERVATION

- Turn off lights and appliances when not in use
- Reduce, reuse, recycle
- Use catalytic converters to change harmful vehicle exhaust into harmless substances
- Use renewable forms of energy
 - Solar
 - Wind
 - Water

VELOCITY

- Speed and direction of a moving object

MOMENTUM

- Mass × Velocity

COLLISIONS

- Result is based on each object's momentum
 - Mass of the objects
 - Velocity of the objects

REFLECTION OF LIGHT

- Light can be reflected at:
 - **Plane/ Flat** surfaces – rays of light stay parallel
 - **Convex curved** surfaces – rays of light spread apart
 - **Concave curved** surfaces – rays of light come together

FOCUS/ FOCAL POINT OF A MIRROR

- Point where light rays meet
 - Used in driving mirrors and headlamps

NEWTON'S CRADLE AND THE CONSERVATION OF MOMENTUM

- Shows how energy and momentum are conserved