

Energy Safety Links

Connect each form of energy to its health or safety concerns.

6.9.d “major health and safety issues are related to different forms of energy;”

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each form of energy, circle the health or safety issue linked to it, and number the safety actions that reduce that issue.

Energy Has Risks

- ① Energy makes life easier, but each form can create health or safety risks. Electrical energy travels through wires to power lights, chargers, and appliances. A damaged cord can expose metal wires. If a person touches the exposed area, electric current may pass through the body and cause a shock, burn, or even death. Water makes this danger worse because it can help electricity travel. Keep hands dry, replace frayed cords, and never overload an outlet with too many plugs.
- ② Chemical energy is stored in fuels such as gasoline, propane, and wood. When these fuels burn, they release thermal energy for engines, stoves, or heaters. Flames and hot surfaces can burn skin or start fires, so fuel must be kept away from flames and stored as directed. Burning fuel can also produce carbon monoxide, a colorless, odorless gas, especially when a device does not burn fuel completely. Use fuel-burning equipment only with proper ventilation and working carbon monoxide alarms.
- ③ Radiant energy from the Sun provides light and warmth, yet some sunlight includes ultraviolet radiation. Too much ultraviolet exposure can damage skin and eyes and raise the risk of skin cancer over time. Seek shade, wear protective clothing, and use sunscreen when outdoors. Sound energy can also harm health. Very loud sounds from headphones, concerts, or machinery can damage tiny structures in the inner ear. Lower the volume, wear hearing protection near loud machines, and take breaks from loud noise.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Why is a damaged electrical cord especially dangerous near water? Give one safety action that lowers this risk.

2 Describe two ways burning fuel can be unsafe. Then name one safety step for fuel-burning equipment.

3 What health problems can too much ultraviolet radiation cause? Name two ways to reduce this risk.

4 How can sound energy harm a person, and what should the person do near loud machinery?

3 YOUR TURN _____ Your own words

Write exactly three sentences about a new school situation involving one form of energy from the passage. Identify the energy form, explain one health or safety risk, and give one specific action that would reduce the risk.

PART 1 • READ AND MARK

Underline each form of energy, circle the health or safety issue linked to it, and number the safety actions that reduce that issue. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Why is a damaged electrical cord especially dangerous near water? Give one safety action that lowers this risk.	Water can help electricity travel, increasing the chance of electric current passing through a person. Keep hands dry or replace the frayed cord.
2	Describe two ways burning fuel can be unsafe. Then name one safety step for fuel-burning equipment.	Flames or hot surfaces can burn skin or start fires, and incomplete burning can produce carbon monoxide. Keep fuel away from flames, use proper ventilation, or use a working carbon monoxide alarm.
3	What health problems can too much ultraviolet radiation cause? Name two ways to reduce this risk.	It can damage skin and eyes and raise the risk of skin cancer over time. Seek shade, wear protective clothing, or use sunscreen.
4	How can sound energy harm a person, and what should the person do near loud machinery?	Very loud sound can damage tiny structures in the inner ear. Wear hearing protection near loud machinery.

PART 3 • YOUR TURN (SAMPLE ANSWER)

During a power outage, the science club uses a propane heater in a closed storage room. The heater uses chemical energy, and incomplete burning could release carbon monoxide that people cannot see or smell. Use an approved heater in a properly ventilated area and make sure a working carbon monoxide alarm is nearby.

Accept equivalent links between an energy form, its related health or safety issue, and an appropriate prevention step stated in the passage. For the open response, accept any realistic school scenario that correctly identifies the energy form and gives a matching risk and safety action.