Welding Safety Video Series – Student Guided Notes

Name: _____ Date: _____

Directions: Watch each video carefully. Fill in the blanks, complete definitions, and answer short-response questions. Be prepared to discuss your answers in class.

Module 1: Electric Shock

Contact with electrically "_____" parts can cause serious _____ or even _____.

Primary voltage shock comes from the _____ power supply.

Secondary voltage shock occurs at the welding _____.

The most common cause of shock is poor _____.

Moisture (like sweat, water, or damp clothing) _____ the risk of shock.

One way to avoid shock is to always keep your hands and gloves _____.

The video recommends placing the return clamp as _____ to the weld as possible.

If shock causes a fall, another possible injury could be _____.

Short Response: Explain why working in wet or damp areas is especially dangerous for welders.

Module 2: Fumes & Gases

Welding fumes are tiny _____ that form when metals are heated above their boiling point.

Two common gases produced by welding are _____ and _____.

Breathing welding fumes may cause short-term effects like _____ and _____.

Long-term exposure can lead to serious _____ problems.

Good shop design includes proper _____ to remove fumes.

Ventilation works best when it pulls fumes _____ from the welder's breathing zone.

When ventilation isn't enough, welders should wear a _____.

Welding on metals with special coatings (like galvanized steel) can release toxic _____.

Short Response: Describe two ways you can tell if your ventilation is not working well.

Module 3: Fire & Explosions

The welding arc can reach up to _____ °F.

Sparks can travel as far as _____ feet from the welding area.

Flammable materials include things like _____, _____, and _____.

Compressed gas cylinders should always be stored _____ from heat and sparks.

Before welding, always check the area for possible _____ hazards.

Fire extinguishers should always be kept _____ to the welding area.

Hot metal can ignite a fire even _____ after welding has stopped.

Never weld near sealed _____ or _____, which could explode.

Short Response: If you had to weld near a wooden wall, what steps would you take to prevent fire?

Module 4: Miscellaneous Safety

Warning labels and _____ must always be read and followed.

Confined spaces can have limited _____ and poor _____.

Always test the atmosphere in a confined space for _____ before welding.

Trailers or portable welders must be set up on a safe, _____ surface.

Welding machines must be properly _____ to avoid shocks or fires.

Damaged cords or leads can cause _____ and should be replaced immediately.

Always secure cylinders in an _____ position to prevent tipping.

Before welding, always inspect cables for _____ or _____.

Short Response: Why is grounding important for welding safety?

Module 5: Personal Protective Equipment (PPE)

Arc rays can cause painful burns to the _____ and severe damage to the _____.

A welding helmet protects the _____ and _____.

Helmets must have the correct _____ shade to protect against arc rays.

Protective _____ and _____ keep your hands and arms safe from sparks.

Flame-resistant _____ and _____ should always be worn in the shop.

Shoes or boots should be made of _____ leather with _____ toes.

Ear protection helps prevent damage from _____ noise.

PPE must be inspected _____ and replaced when damaged.

Short Response: Which piece of PPE do you think is most important, and why?

Module 6: Cutting Systems

Oxy-fuel cutting uses _____ and _____ gases.

Plasma cutting uses a stream of hot _____ to cut through metal.

Gas cylinders must always be stored and transported in an _____ position.

Always check hoses and _____ for leaks or damage before cutting.

Cylinders should be secured with a _____ to prevent tipping.

Sparks from cutting can travel farther than _____ feet.

CNC tables must never be operated without proper _____ in place.

Always shut off the gas supply when the system is not _____.

Short Response: What’s one major difference between plasma cutting and oxy-fuel cutting?

Final Reflection

Which video taught you something new you didn’t know before?

_____

Which safety rule do you think is easiest for students to forget in the shop? _____

Write down one personal safety goal for this semester in the shop. _____