

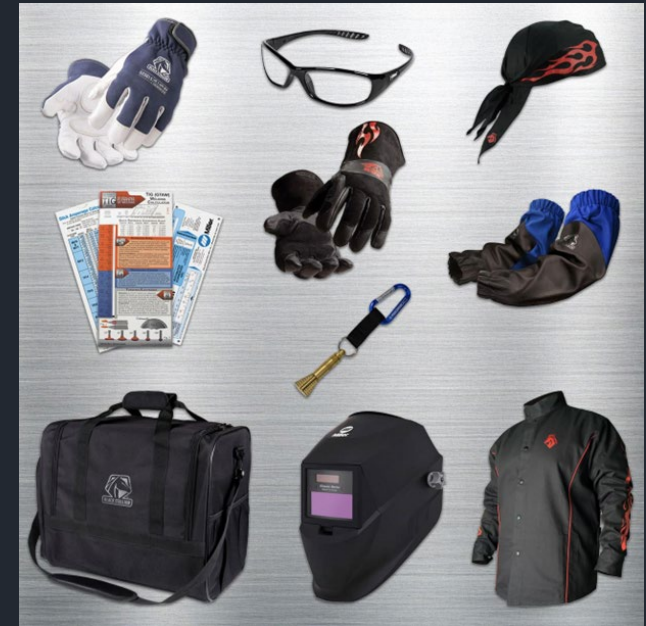
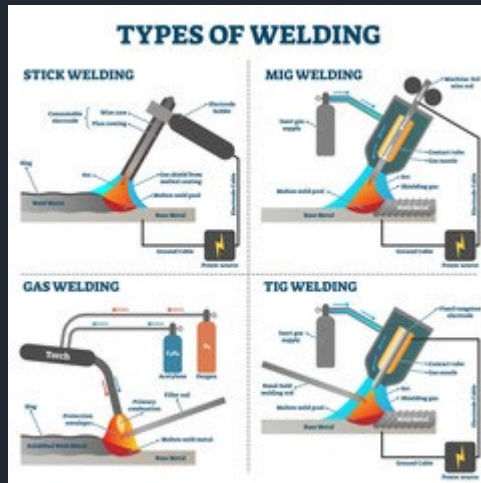
Learn How To Weld Virtually

- MIG | TIG | Stick (SMAW)
- Career-Oriented Virtual Training Model



Instructional Framework

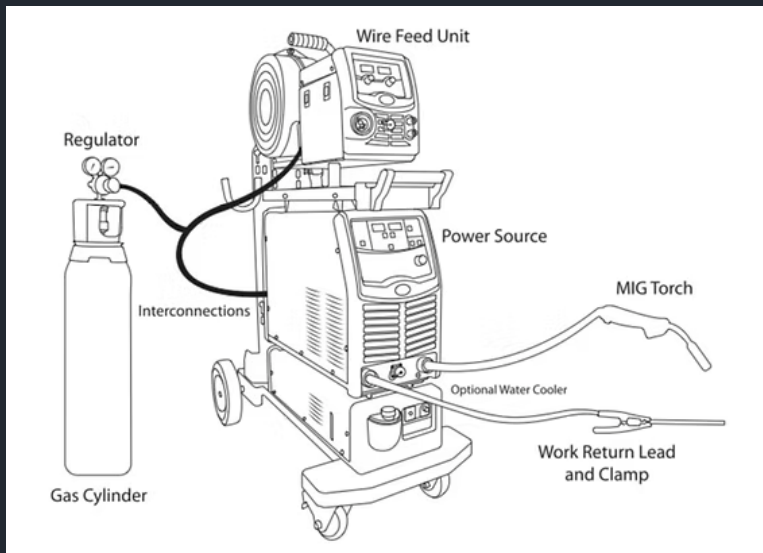
- Universal Design for Learning (UDL)
- Cognitive Theory of Multimedia Learning
- Skill Segmentation Model
- Structured Remote Feedback
- Safety First



Welding Introduction – The Basics

- Before Welding:
- Torch parts
- Electrical basics
- Heat input
- Shielding gas

See linked video above for a demonstration!

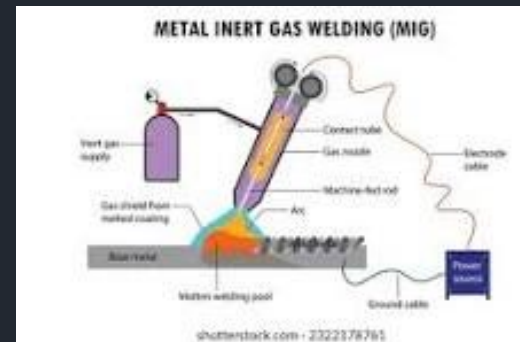


MIG Welding – Tutorial

- 10–15° push angle
- 3/8 inch stick-out
- Shielding gas envelope
- Consistent travel speed



See linked video above for a demonstration!



TIG Welding – Tutorial

- Torch stability
- Foot pedal heat control
- Filler rod rhythm
- Stacked dime formation

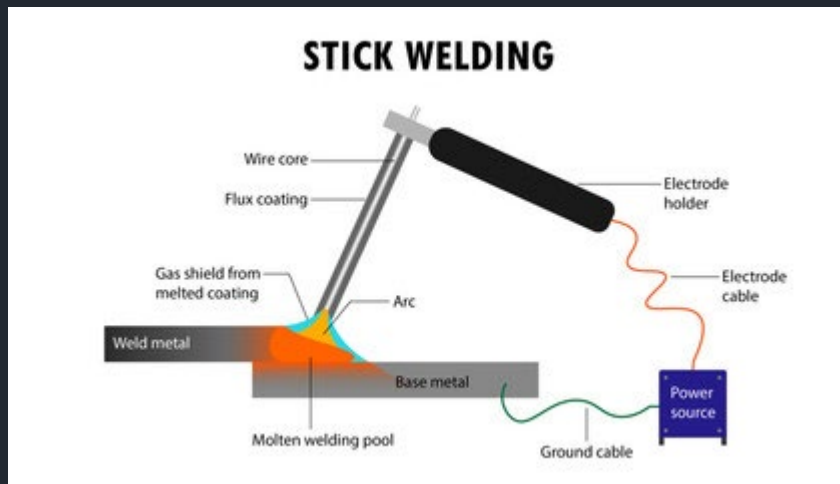
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Stick Welding – Tutorial

- Arc striking technique
- Consistent arc length
- Slag formation & removal
- Electrode angle control

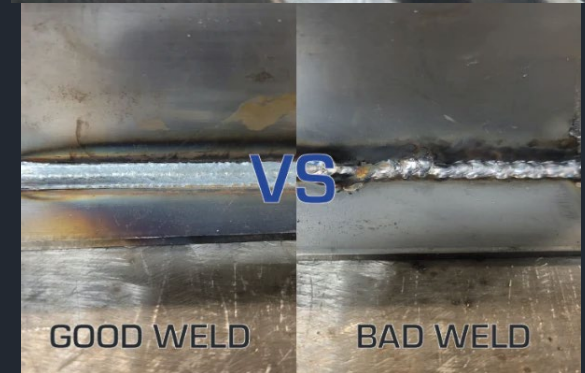
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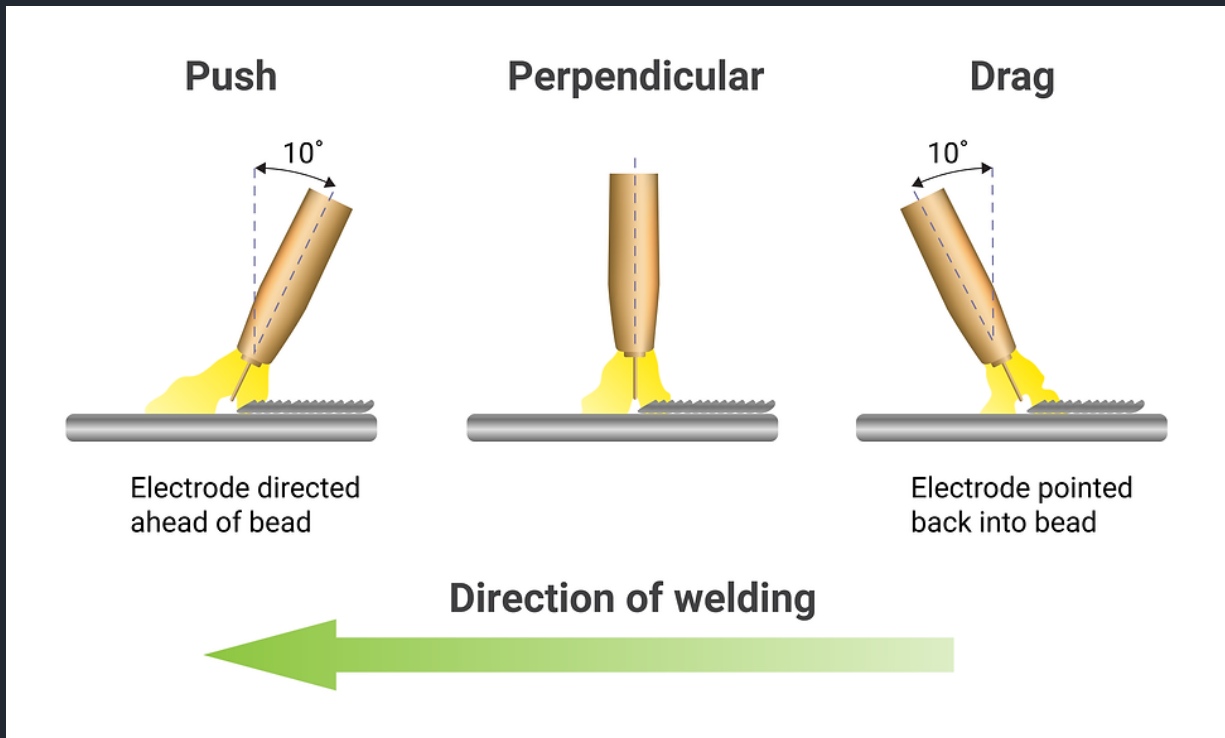
4-Layer Remote Feedback Model

- Self-Evaluation
- Peer Review
- Instructor Annotation
- Targeted Drill Correction

Critique and identify these welds



Welding Terminology





Assessment & Rubric Overview

- Safety & Setup (25%)
- Technical Skill (25%)
- Defect Diagnosis (25%)
- Reflection & Communication (25%)



Examination

- 10 Questions
- Mixed Format (MC + Short Answer)
- Focus: Safety, Technique, Learning Theory

Assessment of Learning

- Answer all 10 questions.
- Combination of multiple choice and short answer.
- Focus on remote welding instruction principles and basic welding knowledge.

1. What is the purpose of shielding gas in MIG welding?
2. Which principle reduces cognitive overload by breaking content into chunks?
3. What visual sign indicates a weld is too cold?
4. Which PPE item protects against UV arc flash?
5. In TIG welding, what controls heat input most directly?

6. Explain why skill segmentation is important in remote welding instruction.
7. Describe one safety risk unique to remote welding learning.
8. What causes undercut in a weld bead?
9. Why is visual discrimination training critical before execution?
10. List two elements included in the 4-layer feedback model.