ECTC Welding

Pandemic Education Plan

Project #1 - Students should look up "Hot Jobs In Welding" on indeed.com and find the highest paying welding positions available for the following areas: It should be listed as the type welding along with the pay rate.

Birmingham, Alabama

Nashville, Tennessee

Chicago, Illinois

Pittsburgh, Pennsylvania

Houston, Texas

San Francisco, California

This project is for 100 points.

Project #2 – Students must look up a union pipe welder position in three different areas of the country and a 250-word essay on the pros and cons of working in a local union.

This project is worth 200 points.

Project #3 – Students are to design a steel bench. The drawing must be on 8 ½" x 11" paper and include measurements and material used. Keep in mind that we can bend 1 ½" pipe tubing, 1 ¼" sq tubing and 2" flat bar.
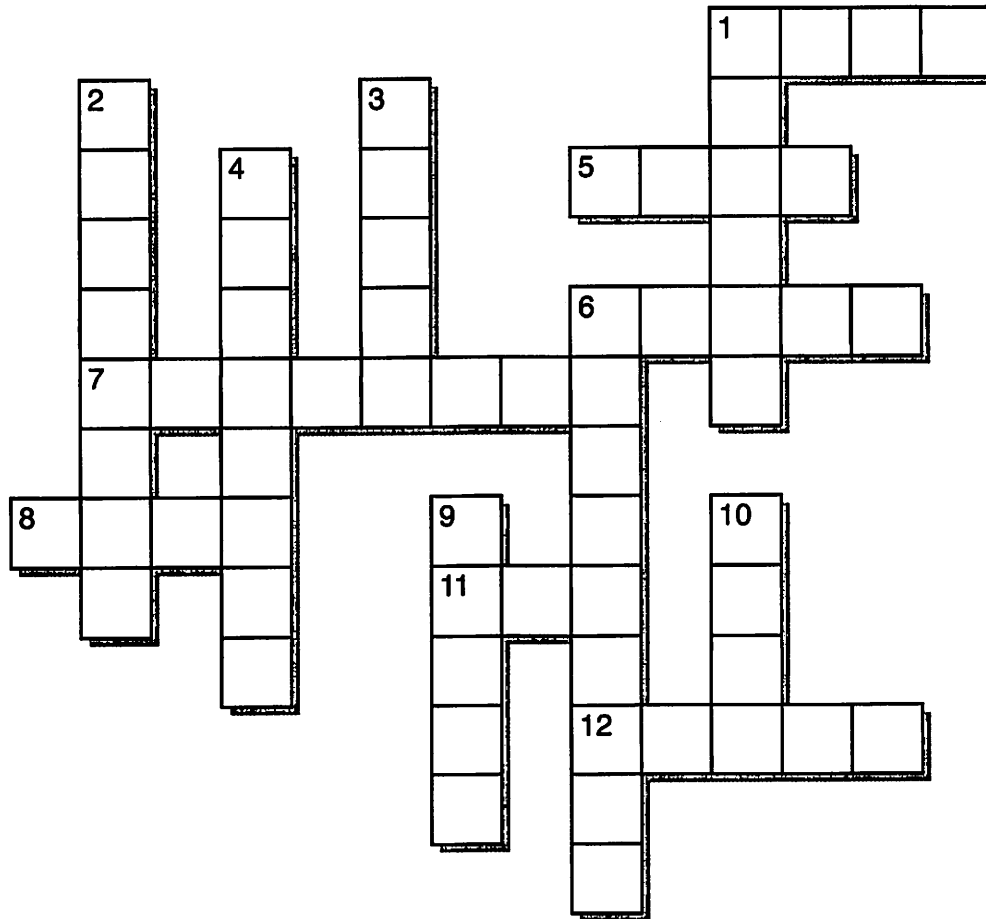
The bench must be 5' long and have a back to it.

This project is worth 300 points.

DATE _____   NAME _____

INTRODUCTION TO WELDING

Across

1) In SMAW, the welding process relies on the _____ coated on the outside of the electrode to create an inert environment for a solid weld to form

5) When separate pieces of metal are heated to a temperature high enough to cause softening or melting allowing filler metal to join them to form one piece

6) Metal _____ Gas (MIG) welding is another name for GMAW

7) _____ Metal Arc Welding (SMAW) is a welding process relying on a flux covered metal electrode to carry an electrical current

8) Hardened metal left by the welding process that joins metal together

11) Tungsten Inert Gas (__) is another name for GTAW

12) Typical shielding gases used are Helium (He), Nitrogen (N), and _____ (Ar)

Down

1) The _____ metal is fed into the welding pool of GTAW welds to help strengthen the joint.

2) Gas _____ Arc Welding (GMAW) is where an arc is established between a your base metal and an electrode that does not melt, only the filler metal wire.

3) In Gas _____ Arc Welding (GMAW) an arc is created between a continuously melting wire electrode and your base metal

4) In GMAW, the shielding gas feed from a gas _____ provides an inert environment to create a solid weld

6) The symbol that denotes the type of weld desired

9) Another name for an SMAW electrode, commonly used in the phrase "_____" welding

10) Crust-like material that cover the weld and must be chipped away from a SMAW weld

100 points

DATE _____   NAME _____

INTRODUCTION TO WELDING

WordSearch
Use the clues below to determine the words that are hidden in the puzzle. Words may be vertical, horizontal, or diagonal.

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X  Q  E  S  B  Z  T  L  W  K  A  R  F  N  T  F  T  X  C  G
R  Z  A  Q  B  K  L  X  E  L  Y  L  X  X  R  J  U  G  Y  Q
V  L  W  Z  Q  U  G  I  L  A  D  E  H  W  W  P  N  O  L  I
K  C  J  T  G  C  F  I  D  Z  B  W  J  P  I  N  G  S  I  Y
J  S  H  I  E  L  D  E  D  G  Q  F  N  K  J  D  S  C  N  A
D  Y  K  G  Y  Z  W  O  G  E  A  H  B  V  S  D  T  J  D  B
G  D  T  T  C  N  Y  O  B  V  O  E  Z  P  J  E  E  R  E  W
H  M  G  Y  D  U  Q  O  H  C  V  G  Y  D  X  T  N  S  R  H
R  U  V  O  Q  Q  Y  F  T  O  T  V  R  I  B  E  A  D  J  U
S  U  F  I  L  L  E  R  D  F  H  J  N  A  Q  M  U  Q  I  T
V  G  V  Y  D  M  Q  J  F  S  A  G  H  Z  P  F  J  X  N  C
K  U  U  N  J  E  Q  Z  P  K  R  U  Y  Z  V  H  Y  T  E  N
T  F  W  D  I  T  M  T  S  H  G  S  N  Z  U  I  L  J  R  U
V  K  R  E  J  A  Y  N  D  R  O  G  Q  V  B  Y  O  B  T  C
H  W  N  F  K  L  Z  X  N  E  N  J  P  W  B  F  T  R  E  K
L  F  O  M  J  S  B  F  W  X  Y  R  B  G  F  D  S  V  T  K
N  W  I  W  I  U  O  F  Q  N  E  D  Q  M  D  L  Y  C  A  T
W  E  Q  K  O  T  V  C  M  S  C  W  P  Z  T  U  U  I  R  J
S  T  I  C  K  A  D  G  M  L  O  L  D  Y  G  N  J  X  D  W
G  W  P  S  Z  M  Q  E  C  S  L  A  G  L  E  L  V  L  O  D
```

1. In SMAW, the welding process relies on the ____ coated on the outside of the electrode to create an inert environment for a solid weld to form
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14. Crust-like material that cover the weld and must be chipped away from a SMAW weld