

## Lesson 4: Identifying Metals

Name\_\_\_\_\_

**Identifying Ferrous Metals Using Spark Testing**

**Objective:** Students will identify different types of ferrous metals by the characteristics of their sparks.

**Directions:** Fill in the following information about the known metal samples.

**Sample A**

Type of metal:

Spark characteristics

Color:

Surface characteristics or other  
distinguishing features:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

**Sample B**

Type of metal:

Spark characteristics

Color:

Surface characteristics or other  
distinguishing features:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

### **Sample C**

Type of metal:

Spark characteristics

Color:

Surface characteristics or other  
distinguishing features:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

### **Sample D**

Type of metal:

Spark characteristics

Color:

Surface characteristics or other  
distinguishing features:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

Fill in the information about the unknown metal samples as they are presented. Using this information and what you have learned about spark testing, indicate what you think each metal is likely to be.

### **Sample 1**

Surface characteristics or other distinguishing features:

Spark characteristics

Color:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

Possible metal type:

### **Sample 2**

Surface characteristics or other distinguishing features:

Spark characteristics

Color:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

Possible metal type:

### Sample 3

Surface characteristics or other  
distinguishing features:

Spark characteristics  
Color:

Length:

Number of explosions:

Shape of explosions:

Sketch of spark pattern:

Possible metal type: