Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Core: \_\_\_\_\_\_

**Group Organization**

Materials Manager: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Reader: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mass Measurer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Pace Monitor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Materials**

Materials Manager please obtain:

* A set of mass cubes (black plastic box). Make sure all of the cubes are present.
* A balance

**Procedure**

1. Materials Manager: Pass around the piece of steel.

The steel’s length is 2.54 cm. Its width is 2.54 cm. Its height is 2.54 cm.

Calculate the volume here (show your work):

Answer: The volume is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

(Did you include units with the volume?)

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Mass Measurer: Measure the mass of the steel. \_\_\_\_\_\_\_\_\_\_

(Did you include the unit with your mass?)

Calculate the steel’s density (show your work):

Answer: The density is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

(Did you include units with the density?)

What would be the mass of a 1 cm3 piece? \_\_\_\_\_\_\_\_\_\_

(Did you include the unit with your mass?)

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Materials Manager: Get a 1 cm3 piece of steel.

Mass Measurer: Measure the mass of the steel. \_\_\_\_\_\_\_\_\_\_

(Did you include the unit with your mass?)

How close was your calculation to the density? \_\_\_ exactly \_\_\_ very close

\_\_\_ it was incorrect

Pace Monitor: Request a Teacher Check.

Materials Manager: Return the 1 cm3 piece of steel.

1. Materials Manager: Pass around the piece of copper.

The copper’s length is 2.54 cm. Its width is 2.54 cm. Its height is 2.54 cm.

The volume is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Mass Measurer: Measure the mass of the copper. \_\_\_\_\_\_\_\_\_\_

(Did you include the unit with your mass?)

Calculate the copper’s density (show your work):

Answer: The density is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

What would be the mass of a 1 cm3 piece? \_\_\_\_\_\_\_\_\_\_

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Materials Manager: Get a 1 cm3 piece of copper.

Mass Measurer: Measure the mass of the copper. \_\_\_\_\_\_\_\_\_\_

How close was your calculation to the density? \_\_\_ exactly \_\_\_ very close

\_\_\_ it was incorrect

Materials Manager: Return the 1 cm3 piece of copper.

1. Materials Manager: Pass around the piece of brass.

The volume is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

Mass Measurer: Measure the mass of the brass. \_\_\_\_\_\_\_\_\_\_

Calculate the brass’s density (show your work):

Answer: The density is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

What would be the mass of a 1 cm3 piece? \_\_\_\_\_\_\_\_\_\_

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Materials Manager: Get a 1 cm3 piece of brass.

Mass Measurer: Measure the mass of the brass. \_\_\_\_\_\_\_\_\_\_

How close was your calculation to the density? \_\_\_ exactly \_\_\_ very close

\_\_\_ it was incorrect

Materials Manager: Return the 1 cm3 piece of brass.

Return the set of mass cubes.

1. Materials Manager: Get a block of wax.

Reader: Using a centimeter ruler, measure the length, height, and width of

the wax block. (Round to the nearest whole number.)

Length: \_\_\_\_\_\_\_\_\_\_ Width: \_\_\_\_\_\_\_\_\_\_ Length: \_\_\_\_\_\_\_\_\_\_

(Did you include units?)

Calculate the wax block’s volume (show your work).

The volume is \_\_\_\_\_\_\_\_\_\_.

(Did you include units?)

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Mass Measurer: Measure the mass of the wax. \_\_\_\_\_\_\_\_\_\_

(Did you include the unit with your mass?)

Calculate the wax’s density (show your work):

Answer: The density is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest tenth).

(Did you include units with the density?)

Pace Monitor: Request a Teacher Check.

Materials Manager: Return the block of wax.

1. Materials Manager: Get a block of foam.

(Be extra careful with the foam--it is easily damaged.)

Reader: Using a centimeter ruler, measure the length, height, and width of

the foam block. (Round to the nearest whole number.)

Length: \_\_\_\_\_\_\_\_\_\_ Width: \_\_\_\_\_\_\_\_\_\_ Length: \_\_\_\_\_\_\_\_\_\_

Calculate the foam block’s volume (show your work).

The volume is \_\_\_\_\_\_\_\_\_\_.

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Mass Measurer: Measure the mass of the wax. \_\_\_\_\_\_\_\_\_\_

(Did you include the unit with your mass?)

Calculate the foam block’s density (show your work):

Answer: The density is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest hundredth).

Pace Monitor: Request a Teacher Check.

Materials Manager: Return the foam block.

1. Materials Manager: Get a piece of plumber’s putty.

Pace Monitor: Shape the putty into a rectangular block.

Reader: Using a centimeter ruler, measure the length, height, and width of

the putty. (Round to the nearest whole number.)

Length: \_\_\_\_\_\_\_\_\_\_ Width: \_\_\_\_\_\_\_\_\_\_ Length: \_\_\_\_\_\_\_\_\_\_

Calculate the putty’s volume (show your work).

The volume is \_\_\_\_\_\_\_\_\_\_.

Pace Monitor: Ensure everyone finishes before anyone goes on to the next step.

Mass Measurer: Measure the mass of the putty. \_\_\_\_\_\_\_\_\_\_

Calculate the putty block’s density (show your work):

Answer: The density is \_\_\_\_\_\_\_\_\_\_ (round off to the nearest hundredth).

Pace Monitor: Request a Teacher Check.

Materials Manager: Return the putty and the balance.