

# Scientific Measurement

## PREVIEW from Activities To Teach



Sampling of our comprehensive 26 page & 42 vocab card deck on Scientific Measurement!

Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

### Word Puzzles

**DOWN**

- A cylinder marked with volume scale, used in laboratories for measuring liquid volumes.
- The SI base unit of length (100 cm = 1 m).
- The mass per unit volume of a material ( $\frac{m}{V}$ ) describes how tightly packed a substance's molecules are.
- The unit of liquid measurement (l) that occupies the same volume as a cubic decimeter (dm<sup>3</sup>) and is slightly larger than a quart.
- An instrument similar to that of a ruler used to measure length, depth, height or width of an object but is able to bend with the contours (shape) of the object.
- An instrument used to measure mass and weight that contains 3 pans of weights that must be balanced with weight of the object being weighed.

**ACROSS**

- A measuring device that uses a compressed spring to weigh them by using force to pull the weight down to the spring to measure the weight.
- Also known as mass, this is a numerical description of how far apart objects are.
- The amount of space occupied by an object.
- Anything that takes up space and has mass. Its characteristics are determined by its atoms.
- To obtain an equivalent value for in an exchange or calculation.
- The measure of the force of gravity on an object.
- Force exerted by every object in the universe on every other object. The amount of gravitational force depends on the masses of the objects and the distance between them.
- A unit of measure in the metric system which is  $\frac{1}{1000}$  of a meter. There are 2.54 of these in one inch.
- A unit of measure for mass on the SI system; 1 g = 0.001 kg

**Word Bank**

- Centimeter
- Convert
- Density
- Distance
- Graduated Cylinder
- Gram
- Gravity
- Liter
- Matter
- Measuring Tape
- Meter
- Spring Scale
- Triple Beam Balance
- Volume
- Weight

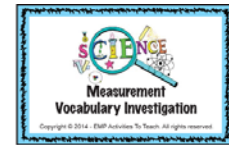
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Instructions: Complete the KWL chart as instructed by your teacher. The KWL chart is expected to be completed across three or more class sessions.

KNOW <i>What do you already KNOW about Scientific Measurement?</i>	WANT <i>What do you WANT to learn or know about Scientific Measurement?</i>	LEARN <i>What did you LEARN about Scientific Measurement?</i>

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### ANSWER KEY

- |                                 |                          |
|---------------------------------|--------------------------|
| 17 Centimeter                   | 16 Mass                  |
| 14 Convert                      | 13 Matter                |
| 9 Density                       | 7 Measuring Tape 20      |
| 18 Distance                     | 8 Meter                  |
| 2 Gravity                       | 15 S.I.                  |
| 3 Gram                          | 11 Spring Scale 22       |
| 12 Graduated Cylinder 21        | 5 Triple Beam Balance 19 |
| 6 International System of Units | 4 Volume                 |
| 1 Liter                         | 10 Weight                |

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## 42 Card Vocabulary Deck

**Weight**

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**SCIENCE**

**Measurement Vocabulary Investigation**

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**SCIENCE**

**Flip Again**

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17

A unit of measure in the metric system which is  $\frac{1}{100}$ 'th of a meter. There are 2.54 of these in one inch.

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# Scientific Measurement

# PREVIEW

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Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

## Measurement Madness

Instructions: Find the words listed below in the word bank in the letter jumble below. The direction of the words can be found horizontally, vertically, and diagonally. Words can also cross too. Two word phrases can be found without a space between the words in the jumble.

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

Centimeter Convert Density Distance Graduated Cylinder Gram Gravity Liter Matter Measuring Tape

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## Crazy Measurement ANSWER KEY

ANSWER KEY

Centimeter Convert Density Distance Graduated Cylinder Gram Gravity Liter Matter Measuring Tape Spring Scale Triple Beam Balance Volume Weight

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## What tool do you use?

Instructions: Based on what you have learned about scientific measurement and the tools used, identify which tool from the word bank you would use to measure the objects listed or pictured below.

**Word Bank**

Spring Scale Graduated Cylinders Triple Beam Balance Tape Measure

For the image shown, what tool would you use to measure the...

mass (individually)?	mass (in a sac)?
circumference?	circumference of table top?
mass (as shown in a sac)?	length?
volume?	circumference?
mass (individually)?	mass (in a sac)?
circumference?	length of a finger?
mass (as shown)?	width of the palm?
volume (loose)?	

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mass (as shown in a sac)?	length?
volume?	circumference?
mass (individually)?	mass (in a sac)?
circumference?	length of a finger?
mass (as shown)?	width of the palm?
volume (loose)?	

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## Match it Up the Meanings!

Instructions: Match up the terms on the left with their definition on the right. Write the letter of the correct definition on the space next to the term.

Convert	A) the measure of the force of gravity on an object
Density	B) a cylinder marked with a volume scale, used in laboratories for measuring liquid volumes
Gravity	C) the SI basic unit of length (m); 100 cm = 1 m
Gram	D) a measuring device that uses a compressed spring to weigh item by using force to pull the weight down to the spring to indicate the weight
Graduated Cylinder	E) anything that takes up space and has mass; the characteristics of this are determined by its atom
Liter	F) an instrument use to measure mass weights that must be balanced with weights
Matter	G) to obtain an equivalent value for
Measuring Tape	H) the unit of liquid measurement (L) a cubic decimeter (dm <sup>3</sup> ) and is slightly larger than a liter
Meter	I) basic unit of measurement for mass
S.I.	J) the mass per unit volume of a material
Spring Scale	K) an instrument similar to that of a height or width of an object but is able of the object
Triple Beam Balance	L) international system of units; standard system of measurement based on powers of 10
Volume	M) the amount of space occupied by
Weight	N) force exerted by every object in the amount of gravitational force depends and the distance between them.

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## ANSWER KEY What's the Meaning?

Instructions: Match up the terms on the left with their definition on the right. Write the letter of the correct definition on the space next to the term.

F Convert	A) the measure of the force of gravity on an object
H Density	B) a cylinder marked with a volume scale, used in laboratories for measuring liquid volumes
C Gram	C) the SI basic unit of length (m); 100 cm = 1 m
L Graduated Cylinder	D) a measuring device that uses a compressed spring to weigh item by using force to pull the weight down to the spring to indicate the weight
A Liter	E) anything that takes up space and has mass; the characteristics of this are determined by its atom
M Matter	F) an instrument use to measure mass weights that must be balanced with weights
G Measuring Tape	G) to obtain an equivalent value for
I Meter	H) the unit of liquid measurement (L) a cubic decimeter (dm <sup>3</sup> ) and is slightly larger than a liter
N S.I.	I) basic unit of measurement for mass
K Spring Scale	J) the mass per unit volume of a material
E Triple Beam Balance	K) an instrument similar to that of a height or width of an object but is able of the object
D Volume	L) international system of units; standard system of measurement based on powers of 10
J Weight	M) the amount of space occupied by
	N) force exerted by every object in the amount of gravitational force depends and the distance between them.

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## Practice Makes Perfect

Instructions: Based on the tool shown in the images below, write the correct measurement. Remember to include the units of measurement for full credit.

1) \_\_\_\_\_  
 2) \_\_\_\_\_  
 3) \_\_\_\_\_  
 4) \_\_\_\_\_  
 5) \_\_\_\_\_  
 6) \_\_\_\_\_  
 7) \_\_\_\_\_  
 8) \_\_\_\_\_  
 9) \_\_\_\_\_  
 10) \_\_\_\_\_  
 11) \_\_\_\_\_  
 12) \_\_\_\_\_  
 13) \_\_\_\_\_  
 14) \_\_\_\_\_  
 15) \_\_\_\_\_

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## ANSWER KEY Try, Try, Try, Again!

Instructions: Based on the tool shown in the images below, write the correct measurement. Remember to include the units of measurement for full credit.

1) 4.2 cm 2) 1.3 cm 3) 13.6 cm 4) 6.5 cm  
 5) 4.0 cm 6) 10.5 cm 7) 4.8 cm 8) 1.0 cm  
 9) 20 mL 10) 10 mL 11) 50 mL 12) 50 mL  
 13) 50 mL 14) 50 mL 15) 50 mL  
 16) 185 g 17) 292.0 g

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