BROWNSVILLE ISD

Curriculum Department

Science
Science Streamlined

G08 Science 1-6W 1920

8th Grade

District 6 Weeks 1st

Regular English Version

Student ID	Student Name	Score(S)

Tango Software™
Benchmark Appraisal System

Academic Readiness Assessment

DIRECTIONS

Read each question carefully. Determine the best answer to the question from the four answer choices provided. Then fill in the answer on your answer document.

1 A student performs a chemical reaction in the presence of her teacher during a science class. A chemical reaction occurs in an open container. During the reaction, bubbles are observed, and a gas is produced. During the post-reaction analysis, the student notices that the reactants weighed 20 grams when she started, and the product weighed 17 grams. What happened during this process?

A The reaction violated the law of conservation of mass.

B The gas that was produced escaped.

C Mass was destroyed during the chemical reaction.

D Mass was created during the chemical reaction.

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2 Chloe is currently watching a glass beaker undergo a chemical reaction. She then develops a chemical burn in her eyes requiring intervention. Which of the following would have prevented her from getting a burn in her eyes?

F Changing the container of the reaction

G Wearing gloves

H Wearing goggles

J Moving the beaker towards her

3 Which of the following tools could be used to see what a cell looks like to the naked eye?

A An electron microscope

B A spectrophotometer

C A microscope

D A magnifying glass

4

- Less dense than other metals
- Highly reactive with reactivity increasing moving down the group
- Largest atomic radius of elements in their period
- One valence electron

Which of the following groups of the periodic table is described in the list above?

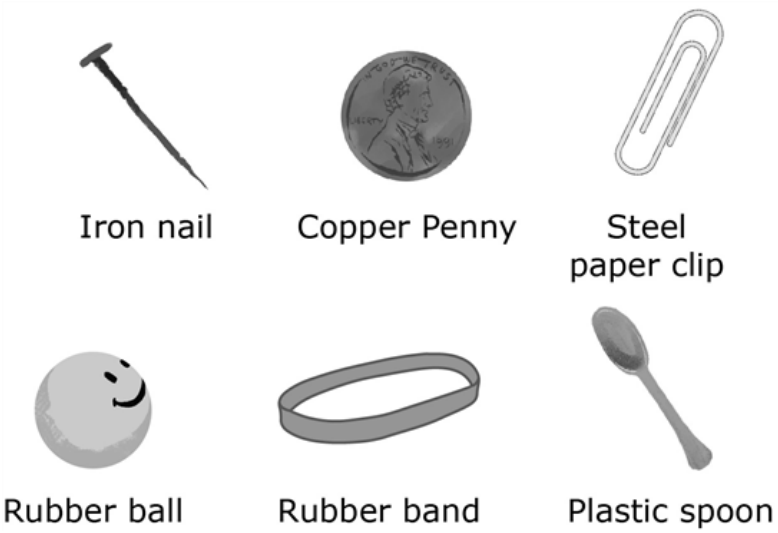
F Noble gasses

G Halogens

H Alkali earth

J Alkali

5



Which of the following instruments would be ideal to measure the combined weight of a steel paper clip and a rubber ball?

A A graduated cylinder

B A thermometer

C A ruler

D A springscale

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6 Which of the following would be used to help stop a chemical burn on the hands?

F A pair of gloves

G A fire blanket

H Emergency shower/eyewash station

J A fire extinguisher

7 A student was learning how to heat butter on a stove in her cooking class when the pan caught on fire.

Which of the following devices could be used to quickly and safely put out a fire?

A A pair of eye goggles

B A fire extinguisher

C An eyewash station

D An apron

8 An atom was being analyzed by a spectrophotometer. The results of the unknown atom are the following:

- Protons: 15
- Neutrons: 30
- Electrons: 15

Which of the following is the correct mass of the atom?

F 60 amu

G 15 amu

H 30 amu

J 45 amu

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9 Students write the starting phase of matter, ending phase of matter, and note any observations in their lab notebooks. Their data table is shown below.

Experiment	Starting Phase	Ending Phase	Observations
1	Solid	Liquid	Bubbles appeared
2	Liquid	Liquid	Changed color from blue to orange
3	Gas	Gas	Blue flame emitted

Which of the following showed evidence of a chemical reaction?

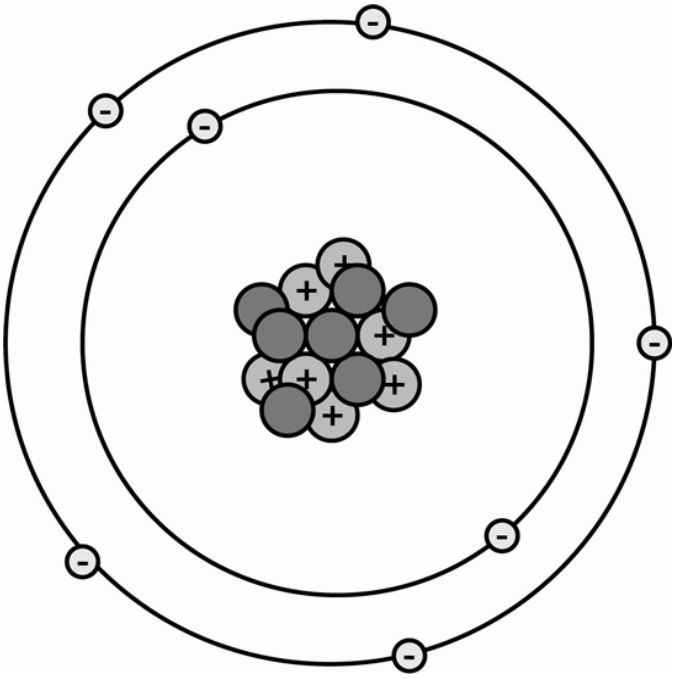
A Experiment 1 only

B Experiment 1 and Experiment 2 only

C Experiment 3 only

D All three experiments showed evidence of a chemical reaction.

10



The portion of an atom which contains the highest mass, yet the smallest volume, would best be described as the —

F orbitals

G protons

H nucleus

J electron cloud

11 Four students in Mr. Static's class were asked to name the parts of an atom that determine the atom's identity and chemical properties. The student's responses are shown in the table below.

Student	Part of Atom That Determines Properties	Part of Atom That Determines Chemical Properties
Sara	Electrons	Protons
Brittany	Neutrons	Electron cloud
Oanh	Valence electrons	Neutrons
Maggie	Protons	Valence electrons

Which student's response is correct?

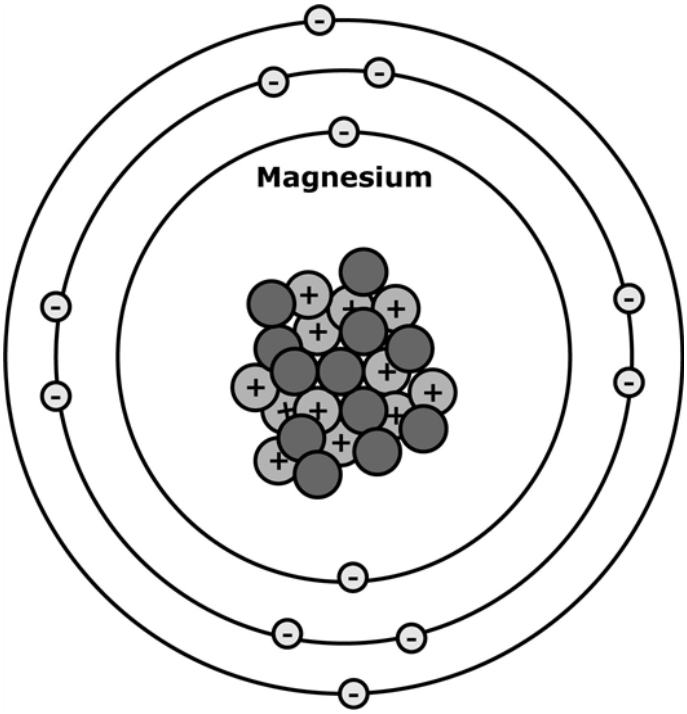
A Maggie

B Sara

C Brittany

D Oanh

12



When studying an atomic model with the goal of identifying the element, the best way to determine an element's identity is to —

F determine the number of isotopes present

G identify the electrons in each orbital

H draw the electron configuration

J count the number of protons in the nucleus

13

Bleach (solid)	Sodium perborate	$NaBO_3$
Borax	Sodium tetraborate decahydrate	$Na_2B_4O_7+10H_2O$
Brimstone	Sulfur	S
Cream of tartar	Potassium hydrogen tartrate	$KHC_4H_4O_6$
Epsom salt	Magnesium sulfate heptahydrate	$MgSO_4 \& H_2O$
Freon	Dichlorodiflooromethane	CF_2Cl_2

Which compound in the chart above contains the largest amount of oxygen atoms?

A Bleach

B Borax

C Epsom Salt

D Cream of Tartar

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14 The purpose of a subscript in a chemical formula is to —

F describe how many atoms of an element make up the compound

G describe how many atoms make up the compound

H describe how many cations are needed to make a compound have an overall positive charge

J describe how many anions are needed to make a compound have an overall negative charge

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BE SURE TO HAVE RECORDED ALL OF YOUR ANSWERS ON THE ANSWER DOCUMENT.

BROWNSVILLE ISD Curriculum Department 000067

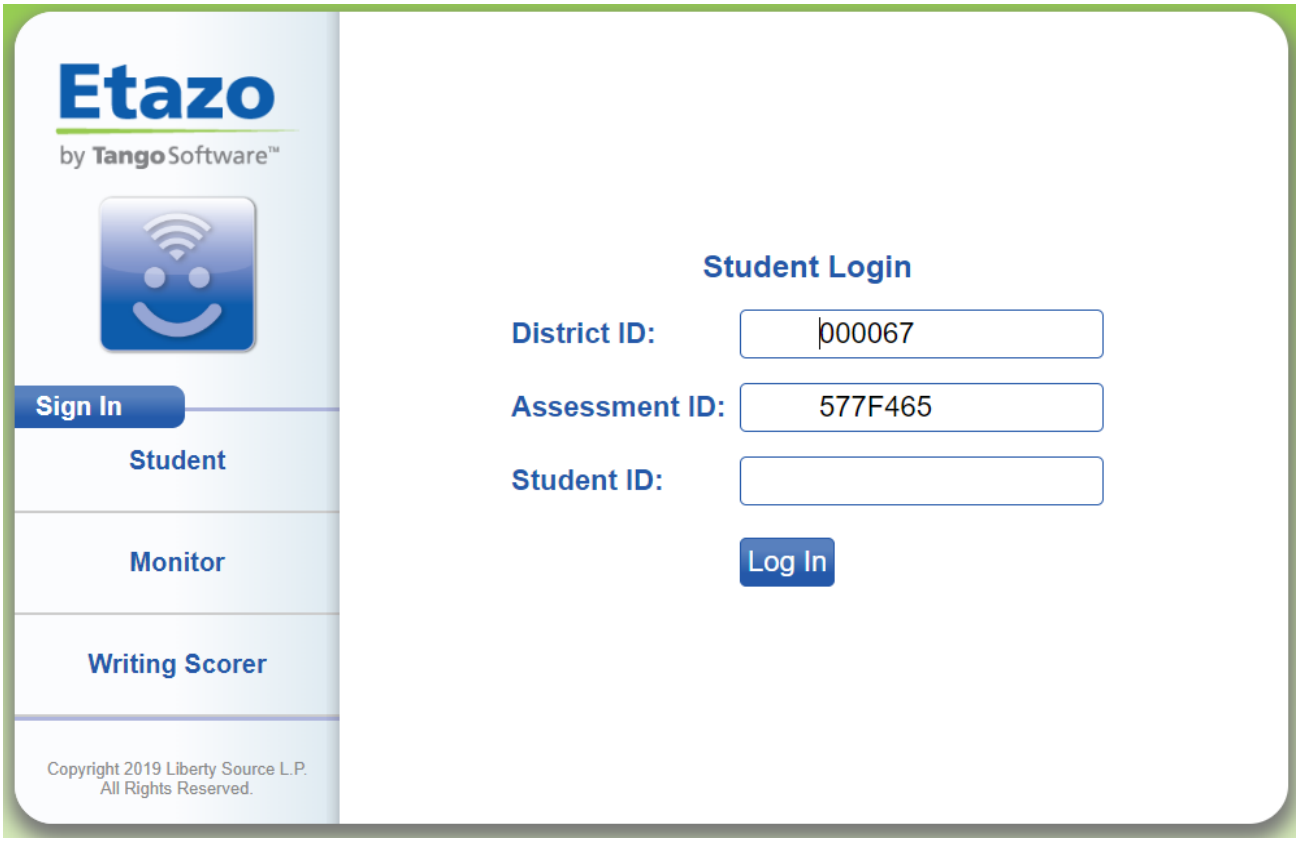
Student Name: _____ **Student ID:** _____

Teacher Name: _____ **Score:** _____

E | G08 Science 1-6W 1920 Document ID: _____

Instructions: Bubble in your response for each question number that you answered.

1 (A) (B) (C) (D)
2 (F) (G) (H) (J)
3 (A) (B) (C) (D)
4 (F) (G) (H) (J)
5 (A) (B) (C) (D)
6 (F) (G) (H) (J)
7 (A) (B) (C) (D)
8 (F) (G) (H) (J)
9 (A) (B) (C) (D)
10 (F) (G) (H) (J)
11 (A) (B) (C) (D)
12 (F) (G) (H) (J)
13 (A) (B) (C) (D)
14 (F) (G) (H) (J)
15 (A) (B) (C) (D)

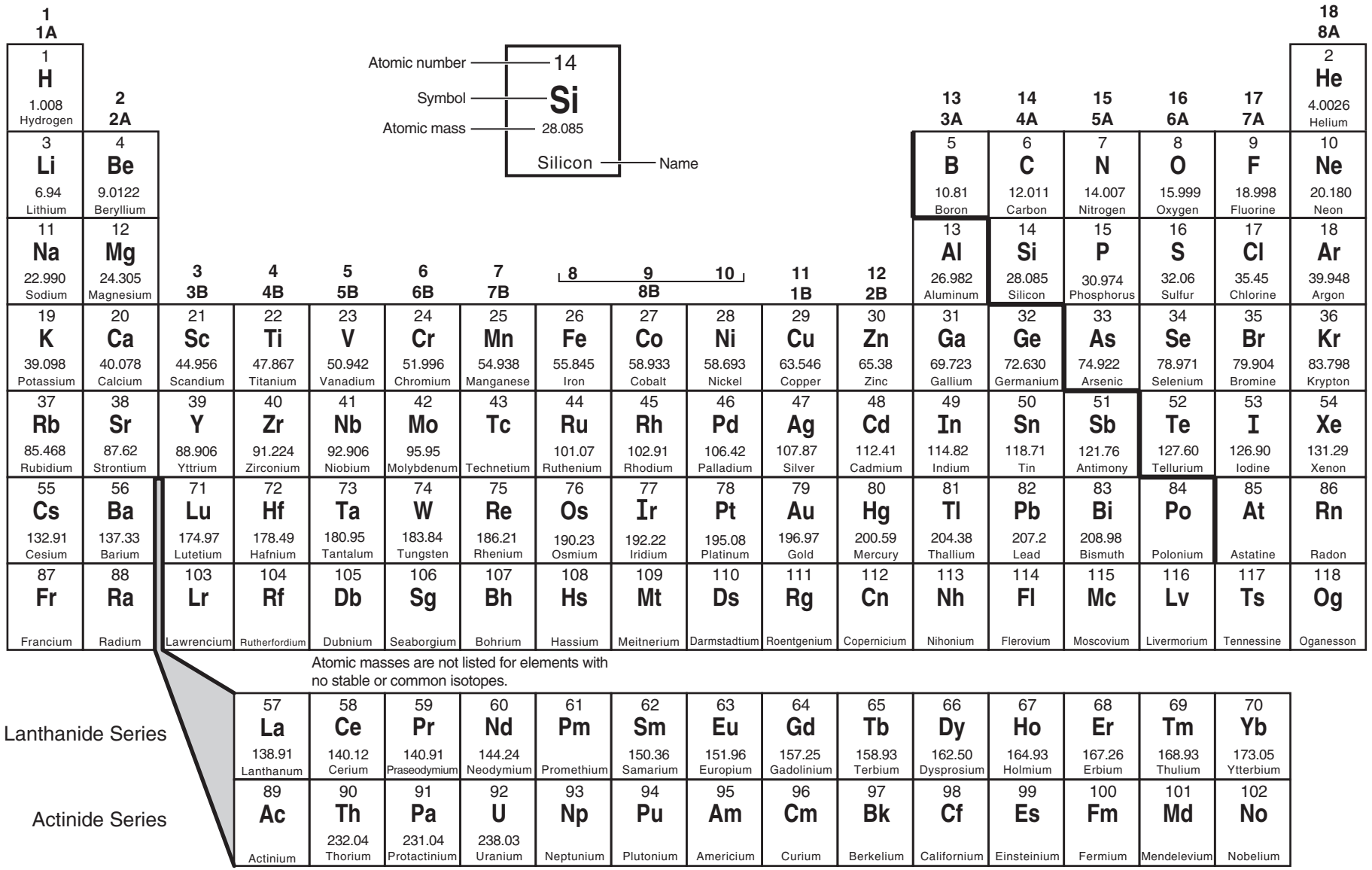


NOT FOR CAMERA SCANNING

Visit etazo.tangosoftware.com to record your responses.

STAAR GRADE 8 SCIENCE REFERENCE MATERIALS

PERIODIC TABLE OF THE ELEMENTS



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Source: International Union of Pure and Applied Chemistry