

Identify the Element Contest

An Elemental Challenge



Introduction

Learning about the elements and their position on the periodic table is an important part of the chemistry curriculum. Make this routine task a little more enjoyable by challenging your students with this Identify the Elements Contest. Simple (and not so simple) clues should help them identify 25 different elements and learn a little more about each element.

To help students identify some of the less familiar elements, provide the list of element symbols, names, or atomic numbers as a clue. These sets of clues are shown below if you wish to use them. The objective of this activity is to gain familiarity with the periodic table and some of the element names and symbols. You can request that the answers be written as the element name, the element symbol, or both.

Possible Clues

Element Symbols

Ag, Al, Br, C, Ca, Cf, Cl, Cu, Es, Fe, Ga, Ge, H, He, Hg, Kr, Li, Md, N, Na, Ni, Ra, Si, U, Xe

Element Names

Aluminum, Bromine, Calcium, Californium, Carbon, Chlorine, Copper, Einsteinium, Gallium, Germanium, Helium, Hydrogen, Iron, Krypton, Lithium, Mendelevium, Mercury, Nickel, Nitrogen, Radium, Silver, Silicon, Sodium, Uranium, Xenon

Atomic Number

1, 2, 3, 6, 7, 11, 13, 14, 17, 20, 26, 28, 29, 31, 32, 35, 36, 47, 54, 80, 88, 92, 98, 99, 101

Connecting to the National Standards

This laboratory activity relates to the following National Science Education Standards (1996):

Unifying Concepts and Process: Grades K–12

Systems, order, and organization

Content Standards: Grades 5–8

Content Standard B: Physical Science, properties and changes of properties in matter

Content Standards: Grades 9–12

Content Standard B: Physical Science, structure and properties of matter

Clues	Element
1. I am a group 2 element that is found in bones	_____
2. I am a transition element found in hemoglobin and rust	_____
3. I am a metal with the same name as a U.S. coin	_____
4. I am a brown liquid at STP	_____
5. I am the only element named after a U.S. state	_____
6. I am named after the “father” of the periodic table	_____
7. I am an alkali metal and am one of two elements in common table salt	_____
8. My name comes from the Latin name for France	_____
9. I am used in pennies and electrical wire	_____
10. I am a gas and the most abundant element in the universe	_____
11. I am named in honor of the “father” of relativity	_____
12. I am a metalloid that is a major component of sand	_____
13. I am a strong yet lightweight metal that is used in airplanes and cans	_____
14. I am the heaviest member of the alkaline earth metals	_____
15. I am the major component of air	_____
16. My name comes from the Latin name for Germany	_____
17. I am used in jewelry, coins, and mirrors	_____
18. I am the rarest of the inert Noble gases	_____
19. I am found in diamonds, charcoal, and pencil lead	_____
20. I am used to make children’s balloons float	_____
21. I am a planet, named after a Roman god, and also called quicksilver	_____
22. I am an halogen and am one of two elements in common table salt	_____
23. I am the lightest (lowest density) of all metals	_____
24. I am named after a planet and was the first known radioactive element	_____
25. I have the same name as Superman’s home planet	_____

Answer Sheet

Clues	Element
1. I am a group 2 element that is found in bones	Calcium, Ca
2. I am a transition element found in hemoglobin and rust	Iron, Fe
3. I am a metal with the same name as a U.S. coin	Nickel, Ni
4. I am a brown liquid at STP	Bromine, Br
5. I am the only element named after a U.S. state.	California, Cf
6. I am named after the “father” of the periodic table.	Mendelevium, Md
7. I am an alkali metal and am one of two elements in common table salt.	Sodium, Na
8. My name comes from the Latin name for France.	Gallium, Ga
9. I am used in pennies and electrical wire	Copper, Cu
10. I am a gas and the most abundant element in the universe.	Hydrogen, H
11. I am named in honor of the “father” of relativity	Einsteinium, Es
12. I am a metalloid that is a major component of sand	Silicon, Si
13. I am a strong yet lightweight metal that is used in airplanes and cans	Aluminum, Al
14. I am the heaviest member of the alkaline earth metals	Radium, Ra
15. I am the major component of air	Nitrogen, N
16. My name comes from the Latin name for Germany.	Germanium, Ge
17. I am used in jewelry, coins, and mirrors.	Silver, Ag
18. I am the rarest of the inert Noble gases.	Xenon, Xe
19. I am found in diamonds, charcoal, and pencil lead	Carbon, C
20. I am used to make children’s balloons float	Helium, He
21. I am a planet, named after a Roman god, and also called quicksilver.	Mercury, Hg
22. I am an halogen and am one of two elements in common table salt.	Chlorine, Cl
23. I am the lightest (lowest density) of all metals.	Lithium, Li
24. I am named after a planet and was the first known radioactive element.	Uranium, U
25. I have the same name as Superman’s home planet	Krypton, Kr