



Memory Game Rules

Starting the Game

Select the elements that you want to practice. Shuffle them, then lay them out face down in a grid.

Playing the Game

When it's your turn, flip a card over. Then flip another card over.

- If the two cards do not match then flip them back over so they are face down. Your turn is over.
- If the two cards match leave them face up and score a point. You may play again.

If you make a mistake when claiming a matched pair, you suffer a one point penalty and your turn is over.

Ending the Game

The game is over when all cards are turned over.

Scoring

You score one point for every pair that you match. You lose one point for every pair that you claim by mistake.

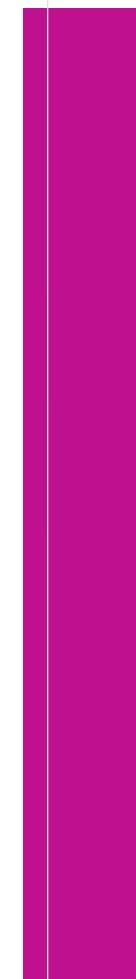
Element Symbols Answer Key

Look up the atomic number of the essential elements on the table below.

Aluminum.....	13	Lithium.....	3
Argon.....	18	Magnesium.....	12
Beryllium.....	4	Mercury.....	80
Boron.....	5	Neon.....	10
Bromine	35	Nickel.....	28
Calcium.....	20	Nitrogen.....	7
Carbon.....	6	Oxygen.....	8
Chlorine	17	Phosphorus.....	15
Copper.....	29	Potassium.....	19
Fluorine.....	9	Silicon.....	14
Gold.....	79	Silver.....	47
Helium.....	2	Sodium.....	11
Hydrogen.....	1	Sulfur	16
Iron	26	Tin.....	50
Lead	82	Zinc.....	30



Element Symbols Matching Game



"Chemistry begins in the stars.
The stars are the source of the
chemical elements, which are the
building blocks of matter and the
core of our subject."

Peter Atkins



Starting the Game

Deal eight cards to every player. Place the deck face down in the middle of the table.

Each player places any matching pairs in them, but does *not* draw replacement cards. Players can challenge each other if they think the pairs are incorrect.

Playing the Game

On your turn, you ask a specific player for a specific card.

- The requested card must pair with a card already in your hand.
- Questions should be in one of the following forms: "Bill, do you know the symbol for <element>?" or "Sally, do you know what element <symbol> is?"

If they do not have the card, your turn is over.

If you get the card you asked for, place the matching pair in front of you and ask for another card. You may ask any player.

If you get a card that doesn't match, you may examine the other player's hand and take any card you like.

- If this makes a matching pair, place the matching pair in front of you and ask for another card. You may ask any player.
- If it doesn't make a matching pair, your turn is over.

When your turn is over, draw a card from the deck.

Challenging

If another player plays a pair that you think doesn't match, you can challenge them. If you are right (and the cards didn't match) you may either

- take both cards and add them to your hand, or
- give them back the cards, and give them any two cards from your hand.

Ending the Game

The game is over as soon as any player runs out of cards.

Scoring

Once the game is over, add up your score as follows:

- 1 point for every pair
- 10 points for playing all your cards
- 10 points for having a complete organ system

Variants

- Remove some of the elements from the deck.
- A player who runs out of cards ends their turn and draws one card from the deck. The game ends when all the cards are played.
- A player asks everyone for a card, rather than a specific player. (Eg. "Does anyone have the symbol for lithium?")
- A player can ask for a type of card rather than a specific card. (Eg. "Bill, do you have a noble gas symbol?")

Element Symbols



Matching Game

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2

He

4.00

1

H

1.01

4

Be

9.01

3

Li

6.94

6

C

12.01

5

B

Boron

10.81

8

O

16.00

7

N

Nitrogen

14.01

10

Ne

20.18

9

F

Fluorine

19.00

Helium

Beryllium

Carbon

Oxygen

Neon

Hydrogen

Lithium

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Hydrogen

Helium

Lithium

Beryllium

Boron

Carbon

Nitrogen

Oxygen

Fluorine

Neon

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12

Mg

24.31

14

Si

28.09

16

S

32.07

18

Ar

39.95

20

Ca

40.08

11

Na

22.99

13

Al

26.98

15

P

30.97

17

Cl

35.45

19

K

39.10

Magnesium

Silicon

Sulfur

Argon

Calcium

Sodium

Aluminum

Phosphorus

Chlorine

Potassium

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Sodium

Magnesium

Aluminum

Silicon

Phosphorus

Sulfur

Chlorine

Argon

Potassium

Calcium

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26

Fe

Iron

29

Cu

Copper

28

Ni

Nickel

55.85

47

Ag

Silver

50

Sn

Tin

79

Au

Gold

82

Pb

Lead

118.71

30

Zn

Zinc

35

Br

Bromine

207.2

80

Hg

Mercury

79.0

63.55

107.87

196.97

65.41

200.59

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Copper

Iron

Silver

Nickel

Gold

Tin

Zinc

Lead

Mercury

Bromine