

# What's My Element? Worksheet



## Pre-Game Questions

- List the questions below from least specific to most specific. Which would be the best question to ask near the beginning of the game? Explain your choice.
  - Does your element have an atomic number less than 5?
  - Is your element boron?
  - Is your element solid at room temperature?
- Write three other sample questions that would be suitable to ask near the beginning of the game.
- What is the penalty for an incorrect guess? Why might a player choose to take that risk?

## Post-Game Questions

- Elements in the first column of the periodic table belong to the alkali metal family. Name the alkali metals and describe two physical or chemical properties that all alkali metals share.
- To which family of elements do helium, neon, and argon belong? Describe two physical or chemical properties that these elements share.
- Suppose you were playing with a deck of 36 element cards that included all the elements in periods four and five. Read the following questions and answers. After each answer, write the symbols of the elements from the deck of 36 that have *not* been excluded based on this answer. What is the mystery element?
 

Q1: Is the element a metal?	Q3: Is the element a noble gas?
A: No	A: No
Q2: Is the element in the last two families?	Q4: Is the element solid at room temperature?
A: Yes	A: Yes
- The possibilities for an opponent's mystery element have been narrowed down to these seven elements—boron, carbon, nitrogen, oxygen, silicon, phosphorus, and sulfur. What question could be asked that would guarantee the elimination of more than two of the remaining possibilities?