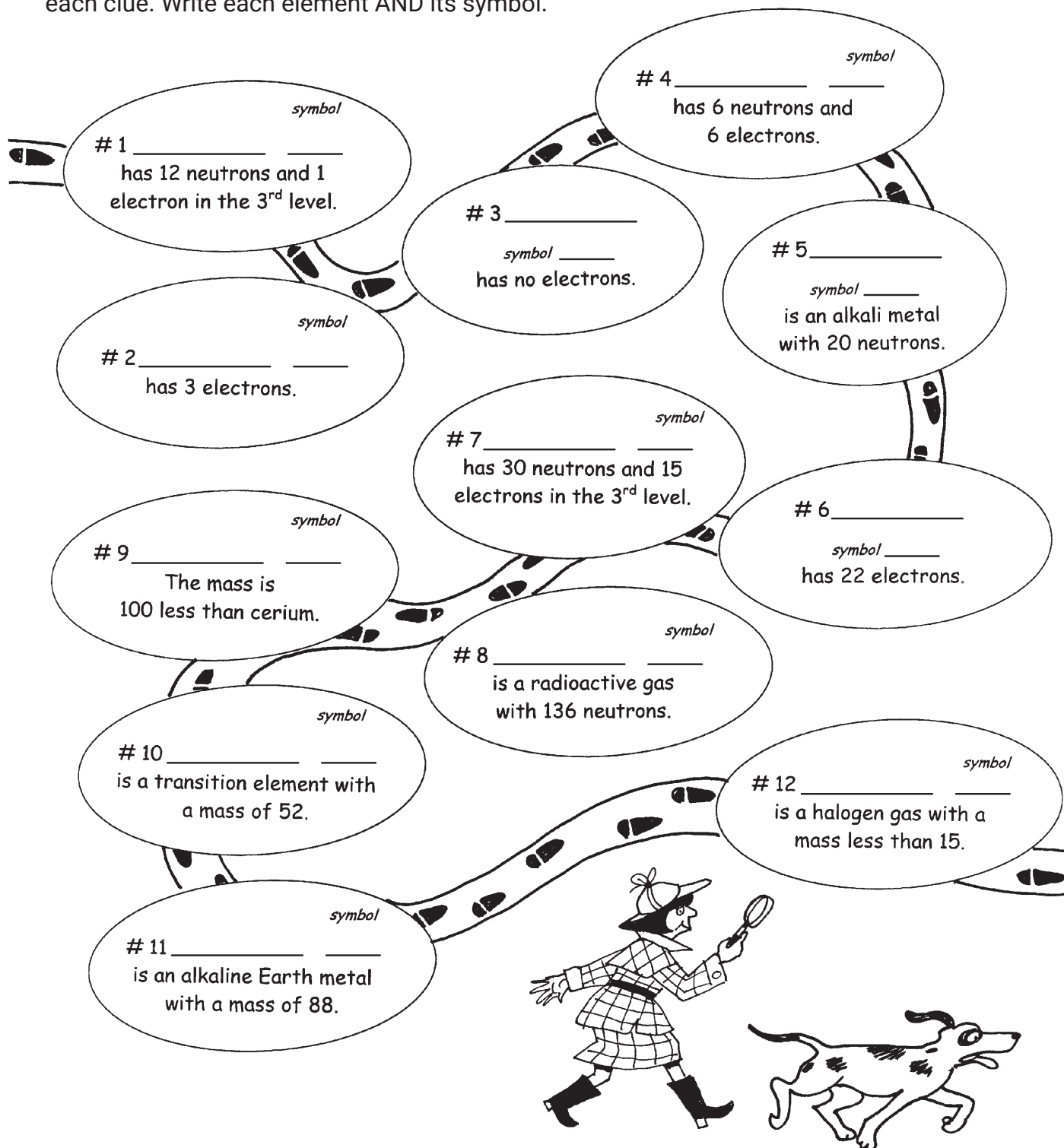


## Snooping for elusive elements

Follow the trail to find the missing elements. Use a Periodic Table, your knowledge about atomic structure, and your investigative skills to figure out which missing element will fit each clue. Write each element AND its symbol.



# 1 \_\_\_\_\_ *symbol*  
has 12 neutrons and 1  
electron in the 3<sup>rd</sup> level.

# 2 \_\_\_\_\_ *symbol*  
has 3 electrons.

# 3 \_\_\_\_\_ *symbol* \_\_\_\_\_  
has no electrons.

# 4 \_\_\_\_\_ *symbol*  
has 6 neutrons and  
6 electrons.

# 5 \_\_\_\_\_ *symbol* \_\_\_\_\_  
is an alkali metal  
with 20 neutrons.

# 6 \_\_\_\_\_ *symbol* \_\_\_\_\_  
has 22 electrons.

# 7 \_\_\_\_\_ *symbol*  
has 30 neutrons and 15  
electrons in the 3<sup>rd</sup> level.


# 8 \_\_\_\_\_ *symbol*  
is a radioactive gas  
with 136 neutrons.

# 9 \_\_\_\_\_ *symbol*  
The mass is  
100 less than cerium.

# 10 \_\_\_\_\_ *symbol*  
is a transition element with  
a mass of 52.

# 11 \_\_\_\_\_ *symbol*  
is an alkaline Earth metal  
with a mass of 88.

# 12 \_\_\_\_\_ *symbol*  
is a halogen gas with a  
mass less than 15.



## Snooping for elusive elements continued

# 13 \_\_\_\_\_ *symbol* \_\_\_\_\_  
has 7 electrons  
in the 4<sup>th</sup> level.

# 16 \_\_\_\_\_  
*symbol* \_\_\_\_\_  
has a mass of 91.

# 17 \_\_\_\_\_  
*symbol* \_\_\_\_\_  
has 121 neutrons  
and 80 electrons.

# 14 \_\_\_\_\_ *symbol* \_\_\_\_\_  
has 42 neutrons.

# 15  
\_\_\_\_\_  
*symbol* \_\_\_\_\_  
is a noble gas with  
48 neutrons and a  
mass of less  
than 100.

# 18 \_\_\_\_\_  
*symbol* \_\_\_\_\_  
has 74 protons.

# 22 \_\_\_\_\_  
*symbol* \_\_\_\_\_  
has a mass of 108.

# 21 \_\_\_\_\_ *symbol* \_\_\_\_\_  
is an alkaline Earth metal  
with 2 electrons  
in the 2<sup>nd</sup> level.

# 19 \_\_\_\_\_  
*symbol* \_\_\_\_\_  
is a halogen gas  
with 22 neutrons.

# 23 \_\_\_\_\_ *symbol* \_\_\_\_\_  
has a mass of 204.

# 24 \_\_\_\_\_ *symbol* \_\_\_\_\_  
is a nonmetal with  
53 electrons.

# 20 \_\_\_\_\_  
*symbol* \_\_\_\_\_  
is a nonmetal with 10  
neutrons and a mass  
greater than 19.

# 25 \_\_\_\_\_ *symbol* \_\_\_\_\_  
has 7 neutrons.

# 26 \_\_\_\_\_ *symbol* \_\_\_\_\_  
is an alkali metal with a mass  
greater than 200.

