Skills Worksheet

Reinforcement

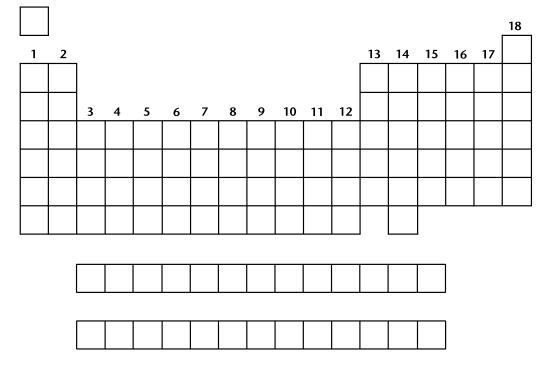
Placing All Your Elements on the Table

Complete this worksheet after you have finished reading the section "Grouping the Elements."

You can tell a lot about the properties of an element just by looking at the element's location on the periodic table. This worksheet will help you better understand the connection between the periodic table and the properties of the elements. Follow the directions below, and use crayons or colored pencils to color the periodic table at the bottom of the page.

- **1.** Color the square for hydrogen yellow.
- **2.** Color the two groups with the most reactive metals red.
- **3.** Circle and label the noble gases in orange.
- **4.** Color the transition metals green.
- **5.** Using black, mark the zigzag line that shows the position of the metalloids.
- **6.** Color the metalloids purple.
- **7.** Color all the nonmetals that are not noble gases blue.

- **8.** Color the metals in Groups 13–16 brown.
- **9.** Circle and label the actinides in yellow.
- **10.** Circle and label the lanthanides in red.
- **11.** Circle and label the alkali metals in blue.
- **12.** Circle and label the alkaline-earth metals in purple.
- **13.** Circle and label the halogens in green.



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Name	Class	Date
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Answer the following questions using the periodic table on the previous page.

- **14.** The alkaline-earth metals react similarly because they all have the same number of electrons in their outer energy level. Which group contains the alkaline-earth metals?
- **15.** How many electrons are in the outer energy level of the atoms of alkaline-earth metals?
- **16.** Hydrogen is in a different color than the alkali metals in Group 1. Give an example of how hydrogen's characteristics set it apart from the alkali metals.
- **17.** What is the name of the group of unreactive nonmetals that includes argon?
- **18.** Except for the metalloids, what do all the elements on the right side of the zigzag line have in common?

Imagine you are a scientist who has just discovered a new element. The element has an atomic number of 113, and it has three electrons in the outer energy level of each atom.

19. In which group would you place this new element in the periodic table?

20. Which element would have properties most similar to the new element?

21. What name would you suggest for this new element?