1. Print slides 3 and 4 in color and cut boxes apart to give to students.
2. Give students slides 2, 6, 8 and 9.
3. Cut apart the boxes on slides 3 and 4 and give to students in color.
4. Slides 3 and 4 help solve slide 2
5. Students use slide 9 to answer slide 6
6. Students use slide 9 to figure out the directional
lock on slide 8 which is in the last paragraph.
7. Check speaker notes for more help

## Inside the box:

## BreakoutEDU


Color
lock:
BPORG


## Directional

lock:
DOWN, RIGHT, RIGHT, DOWN, UP

## Periodic Puzzle

## In GT we:



Periodic Puzzle (print and cut apart)


Periodic Puzzle (print and cut apart)


# Periodic Puzzle ANSWERS 

## In GT we:

## Use our BRAIN to THINK

## Use our skills to INVESTIGATE

## Use resources to INSPIRE

And most importantly we have FUN.

## Periodic Gossip

Taking time to talk about others is very bold. Let's hear what gossip is spreading around the Chemistry School.
"I bet your outfit is made out of Copper and Tellurium, because it is 50

"Did you hear that Oxygen is going out with Maǵnesium?" " $\square$ !"
"Are you friends with Nitrogen and Oxygen?" " $\square$."
"Ruthenium saw Oxygen and Potassium and asked
 ?"
"Sulfur, Tungsten and Silver are so stylish. They have so


## Periodic Gossip Answer Key

I bet your outit is made out of Copper and Tellurium, because it is so CuTe.

Did you hear that Oxygen is going out with Magnnesium? OM!!

Are you friends with Nitrogen and Oxygen? NO.

Ruthenium saw Oxygen and Potassium and asked RuOK?
Sulfur, Tungsten and Silver are so stylish. They have so much SWAg.

## The System of the Periodic Table

The Periodic Table is a way of listing the elements in an organized way. Elements are listed in the table by the structure of their atoms.
From left to right and top to bottom, the elements are listed in the order of their atomic number, which is the number of protons in each atom.

It is called "periodic" because elements are lined up in cycles or periods. From left to right elements are lined up in rows based on their atomic number (the number of protons in their nucleus).

Each horizontal row in the table is a period. There are seven (or eight) total periods. The first one is short and only has two elements, hydrogen and helium. The sixth period has 32 elements.

Groups are the columns of the periodic table. There are 18 columns or groups and different groups have different properties.

This lining-up and grouping of similar elements helps chemists when working with elements. They can understand and predict how an element might react or behave in a certain situation.

Let's practice locating elements! Try to locate each element. Start at Hydrogen. Then find Potassium. Now find Iron. Next find Copper. Then locate Gadolinium. Finally see if you can find Gold!

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| $\begin{array}{\|c\|} \hline 60 \\ 811 \end{array}$ | $\begin{gathered} S 1 \\ \angle 1 \\ \hline \end{gathered}$ | $\begin{gathered} \wedge 7 \\ 91 . \end{gathered}$ | $\begin{aligned} & \text { SW } \\ & \text { SL } \end{aligned}$ | $\begin{array}{\|c\|} \hline \forall 1 \\ \nabla L L \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline Y N \\ E L L \end{array}$ | $\begin{gathered} 42 \\ 211 \end{gathered}$ | $\begin{array}{\|l\|} \hline 6 y \\ 115 \end{array}$ | $\begin{array}{\|l\|} \hline \mathrm{SQ} \\ \mathrm{OLL} \\ \hline \end{array}$ | $\begin{aligned} & \hline 7 W \\ & 601 \end{aligned}$ | $\begin{array}{\|c\|} \hline \mathrm{SH} \\ 80 \mathrm{~L} \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 48 \\ \angle O L \end{array}$ | $\begin{gathered} 6 s \\ 901 \end{gathered}$ | $\begin{aligned} & 90 \\ & 501 \end{aligned}$ | $\begin{gathered} f y \\ \rightarrow 0 l \end{gathered}$ | ＊ | $\begin{aligned} & 3 \forall \\ & 68 \end{aligned}$ | ey 88 | 17 $\angle 8$ | $L$ |
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