

Name: \_\_\_\_\_

Collisions Username: \_\_\_\_\_

Class: \_\_\_\_\_

## Ionic Bonding Quest

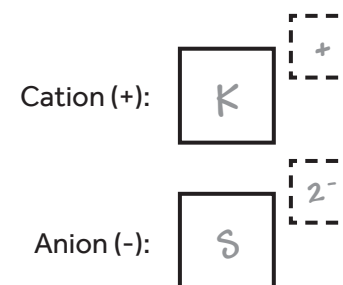
Now that you have completed the Ionic Bonding Challenges, you are ready to conduct this Ionic Bonding Quest.

### MISSION 1. GATHER YOUR INTEL

Use your Collisions gameplay experience to gather the following intel:

1. Determine the cation in the target.
  - a. Label the element symbol(s) in the large square.
  - b. Write the charge in the smaller, dashed box.
2. Determine the anion in the target.
  - a. Label the element symbol(s) in the large square.
  - b. Write the charge in the smaller, dashed box.

Sample Target



### MISSION 2. EXPOSE THE DETAILS

Use your expertise to expose the following information for each target.

	Sample Target
Chemical Formula	$K_2S$
Compound Name	Potassium Sulfide
Lewis Structure	$[K]^+ [:\ddot{S}:]^{2-}$
Formula Mass (g/mol)	110.27 g/mol

# Ionic Bonding - Challenge Level 1

## MISSION 1. GATHER YOUR INTEL

Target 1

Cation (+):

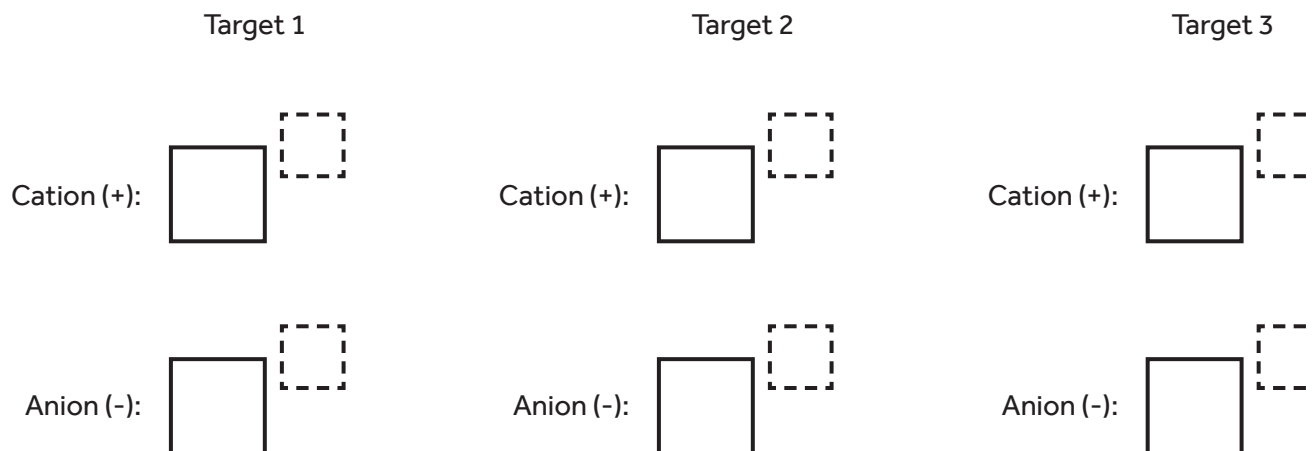
Anion (-):

## MISSION 2. EXPOSE THE DETAILS

Target 1	
Chemical Formula	
Compound Name	
Lewis Structure	
Formula Mass (g/mol)	

# Ionic Bonding - Challenge Level 2

## MISSION 1. GATHER YOUR INTEL



## MISSION 2. EXPOSE THE DETAILS

	Target 1	Target 2	Target 3
Chemical Formula			
Compound Name			
Lewis Structure			
Formula Mass (g/mol)			

# Ionic Bonding - Challenge Level 3

## MISSION 1. GATHER YOUR INTEL

Target 1

Cation (+):

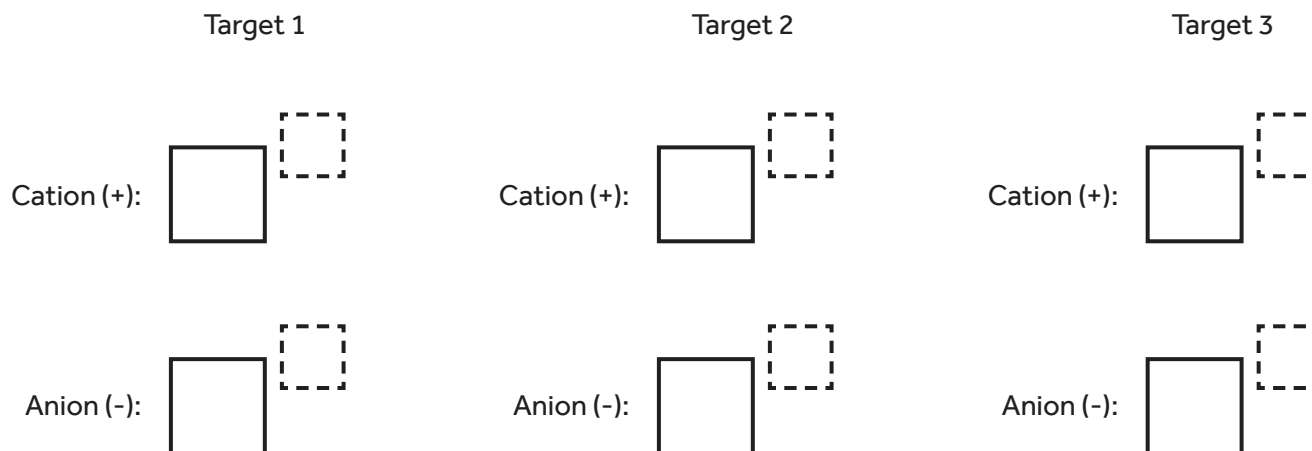
Anion (-):

## MISSION 2. EXPOSE THE DETAILS

Target 1	
Chemical Formula	
Compound Name	
Lewis Structure	
Formula Mass (g/mol)	

# Ionic Bonding - Challenge Level 4

## MISSION 1. GATHER YOUR INTEL

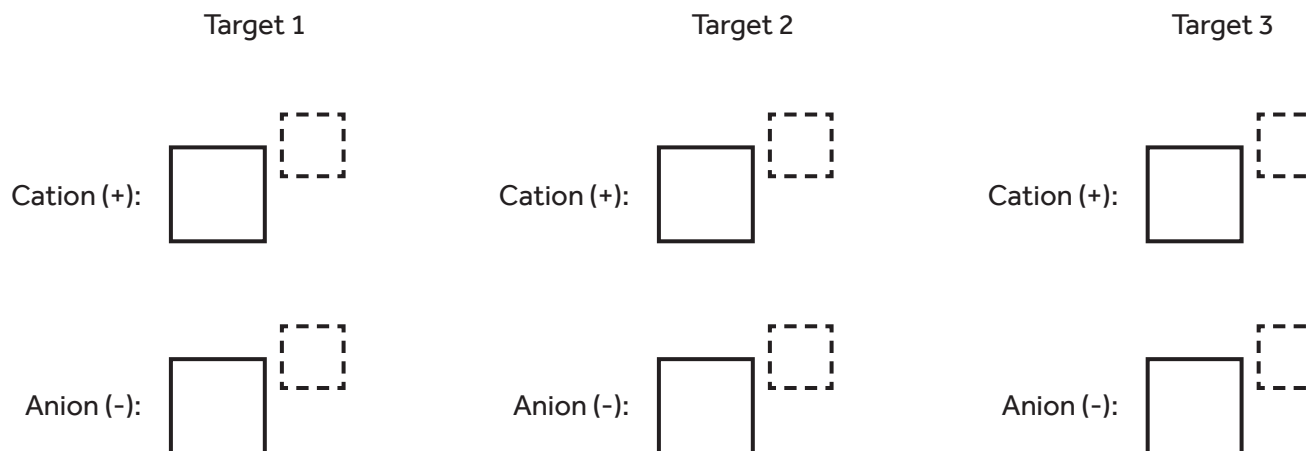


## MISSION 2. EXPOSE THE DETAILS

	Target 1	Target 2	Target 3
Chemical Formula			
Compound Name			
Lewis Structure			
Formula Mass (g/mol)			

# Ionic Bonding - Challenge Level 5

## MISSION 1. GATHER YOUR INTEL

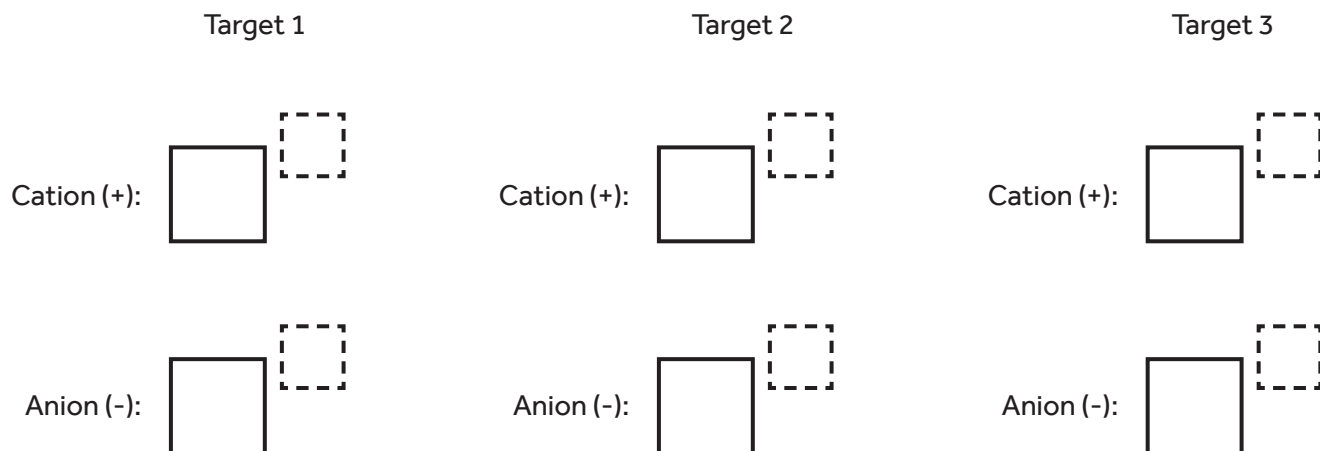


## MISSION 2. EXPOSE THE DETAILS

	Target 1	Target 2	Target 3
Chemical Formula			
Compound Name			
Lewis Structure			
Formula Mass (g/mol)			

# Ionic Bonding - Challenge Level 6 (Ions to Ionic Bonding)

## MISSION 1. GATHER YOUR INTEL



## MISSION 2. EXPOSE THE DETAILS

	Target 1	Target 2	Target 3
Chemical Formula			
Compound Name			
Lewis Structure			
Formula Mass (g/mol)			

# Ionic Bonding - Challenge Level 7 (Ions to Ionic Bonding)

## MISSION 1. GATHER YOUR INTEL

	Target 1	Target 2	Target 3
Cation (+):	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>
Anion (-):	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>	<input type="text"/> <input type="text"/>

## MISSION 2. EXPOSE THE DETAILS

	Target 1	Target 2	Target 3
Chemical Formula			
Compound Name			
Lewis Structure			
Formula Mass (g/mol)			