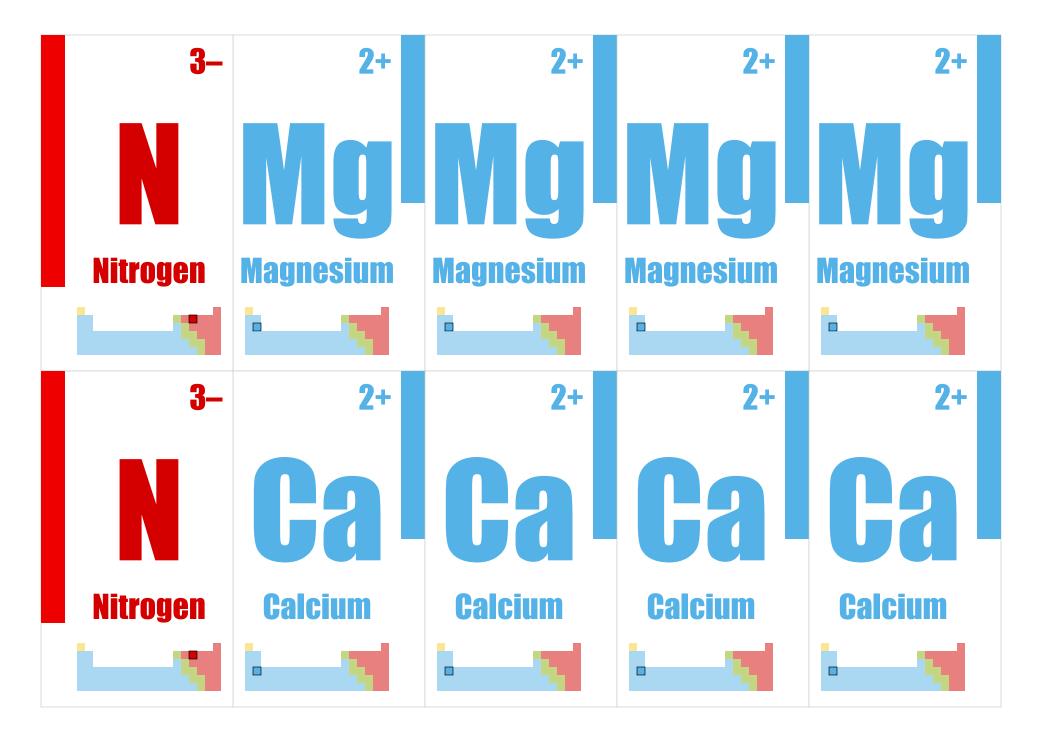
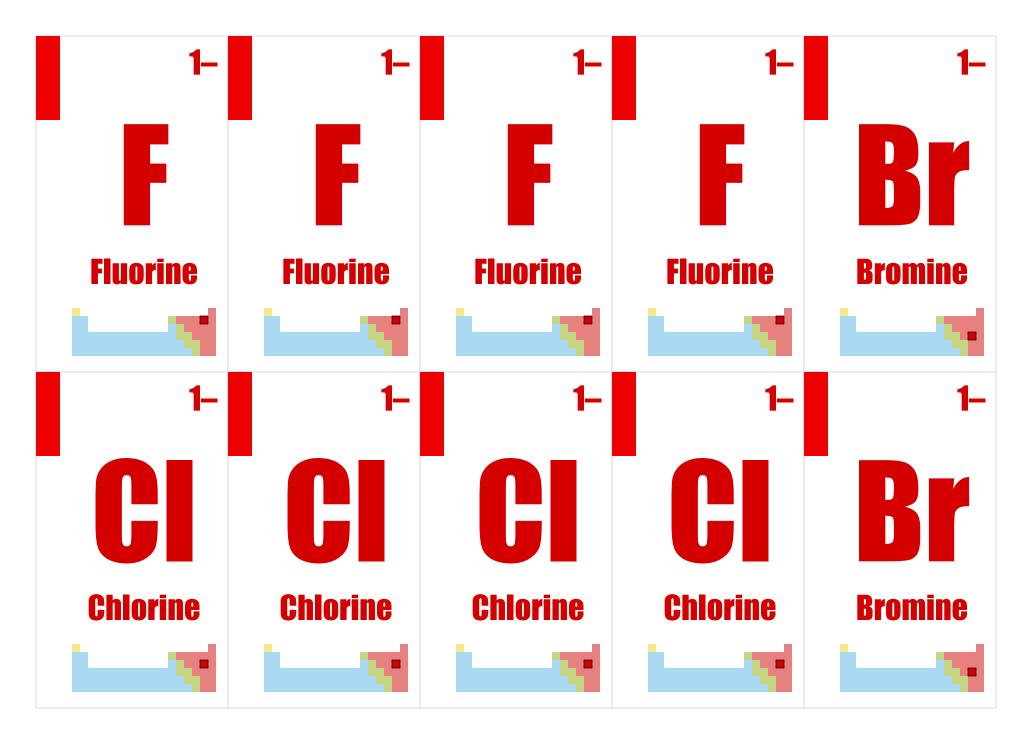
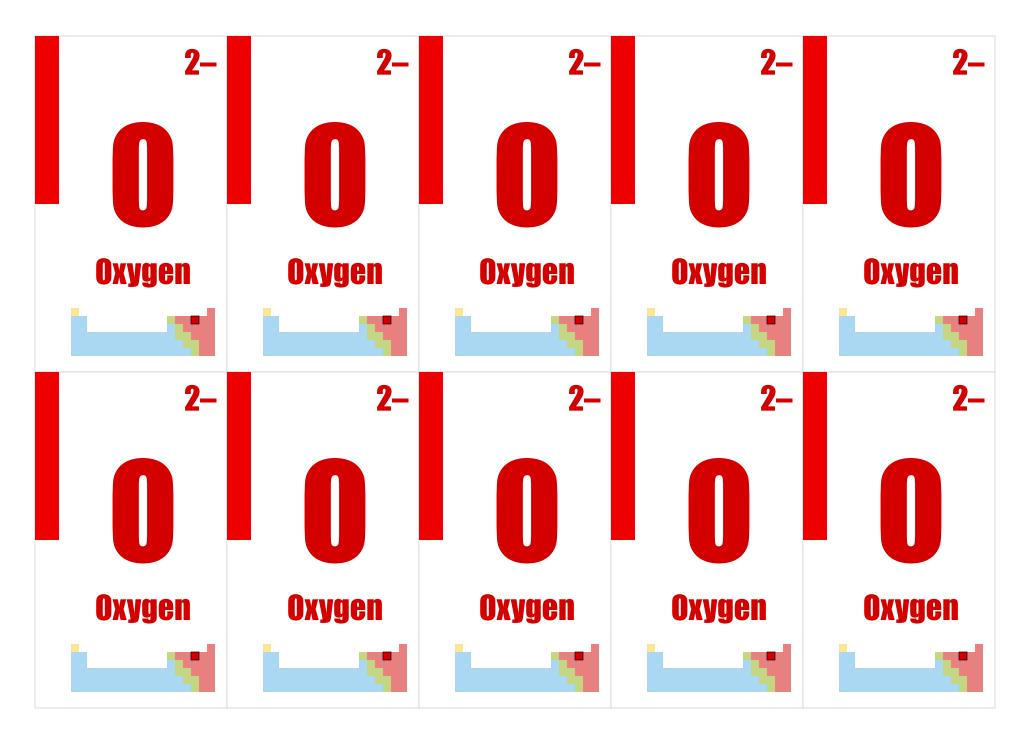


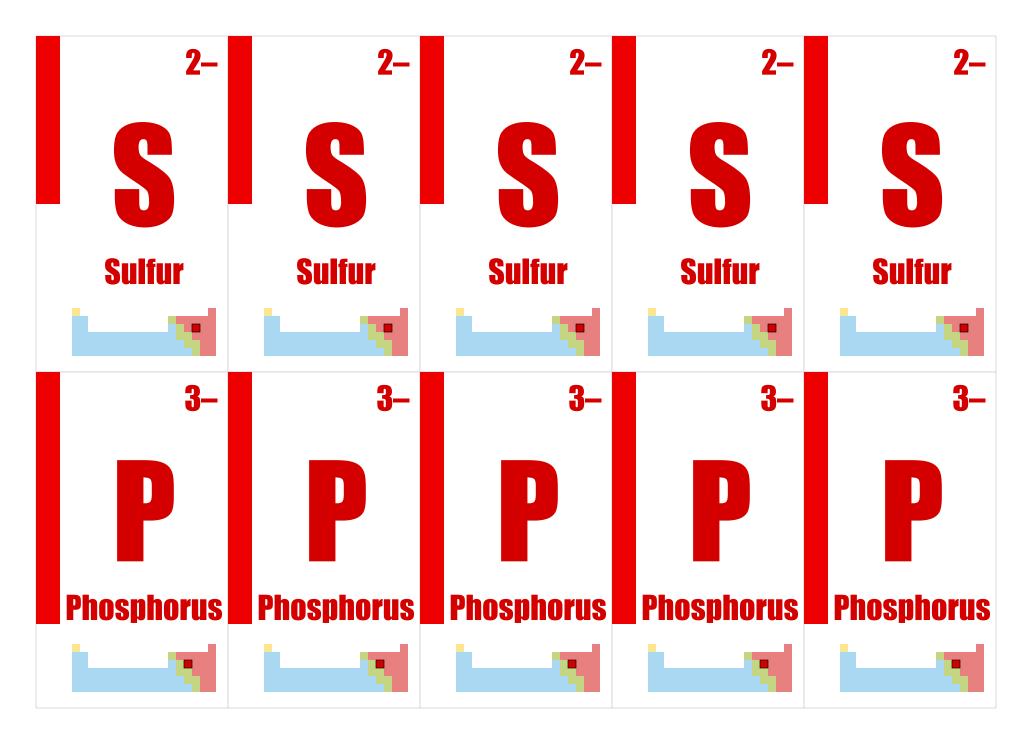
2+/1+	2+/1+	2+/1+	2+/1+	3+/1+
Cu	Cu	Cu	Cu	AU
Copper	Copper	Copper	Copper	Gold
-		•	•	
2+/4+	2+/4+	2+/4+	3+/1+	3+/1+
Pb	Pb	Pb	Au	Au
Lead	Lead	Lead	Gold	Gold
			.	

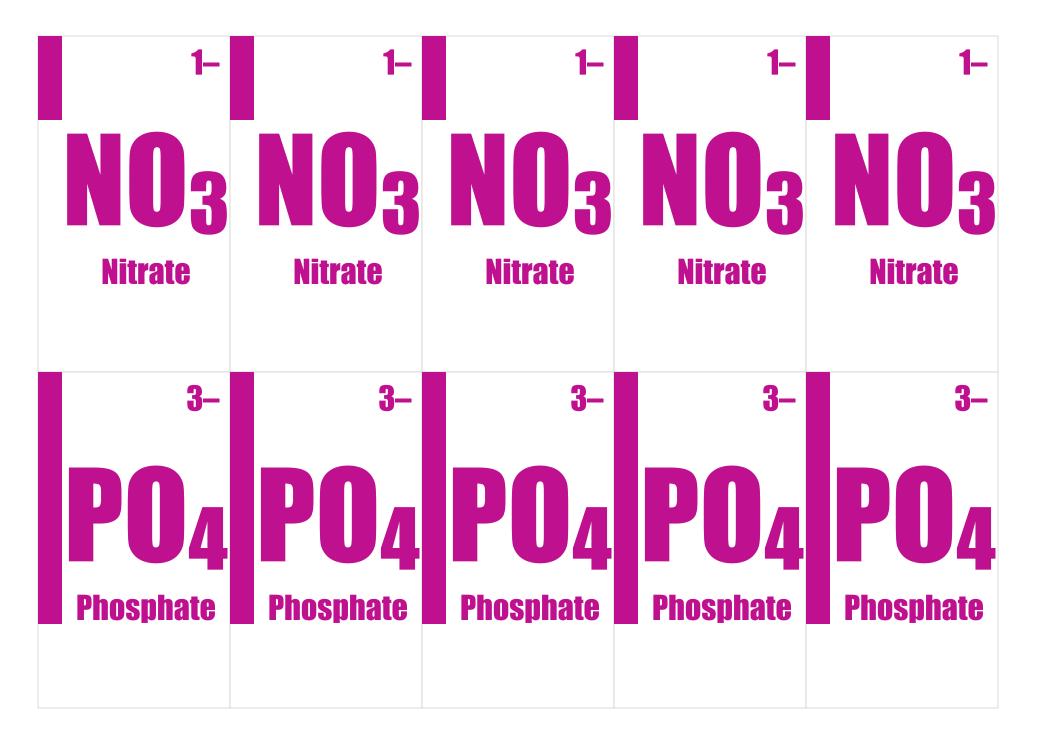
2+/1+	2+/1+	2+/1+	3+/2+	3+/2+
Hg	Hg	Hg	FC	FC
Mercury	Mercury	Mercury	Iron	Iron
				-
4+/2+	4+/2+	4+/2+	3+/2+	3+/2+
Sn	Sn	Sn	FC	Fe
Tin	Tin	Tin	Iron	Iron
				-

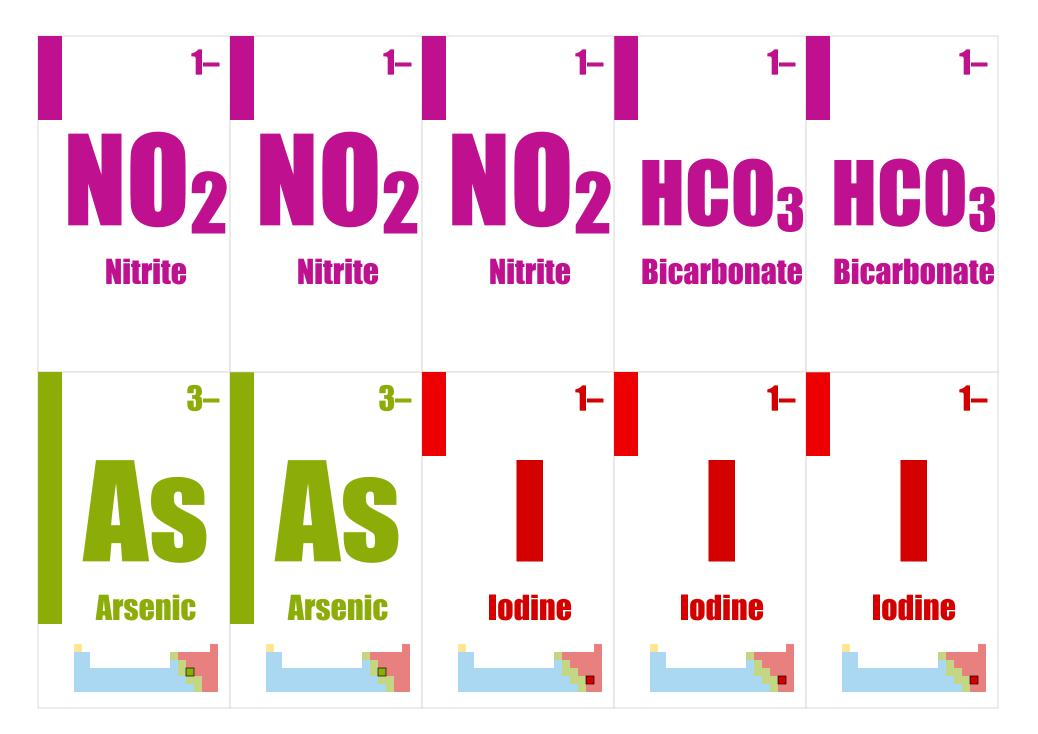


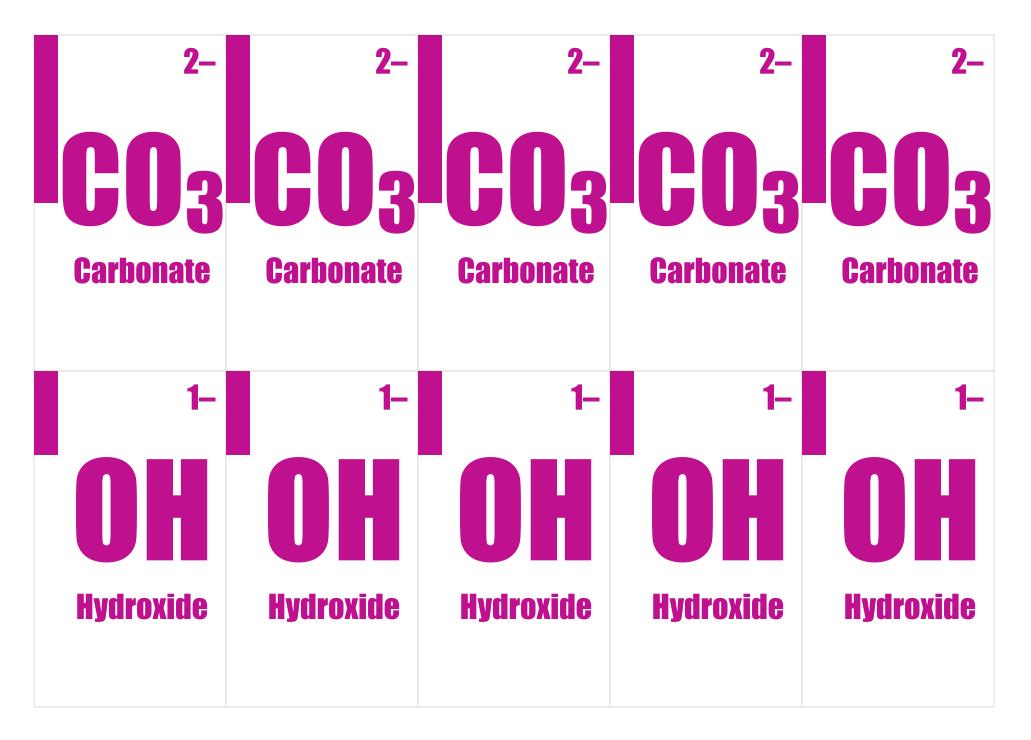


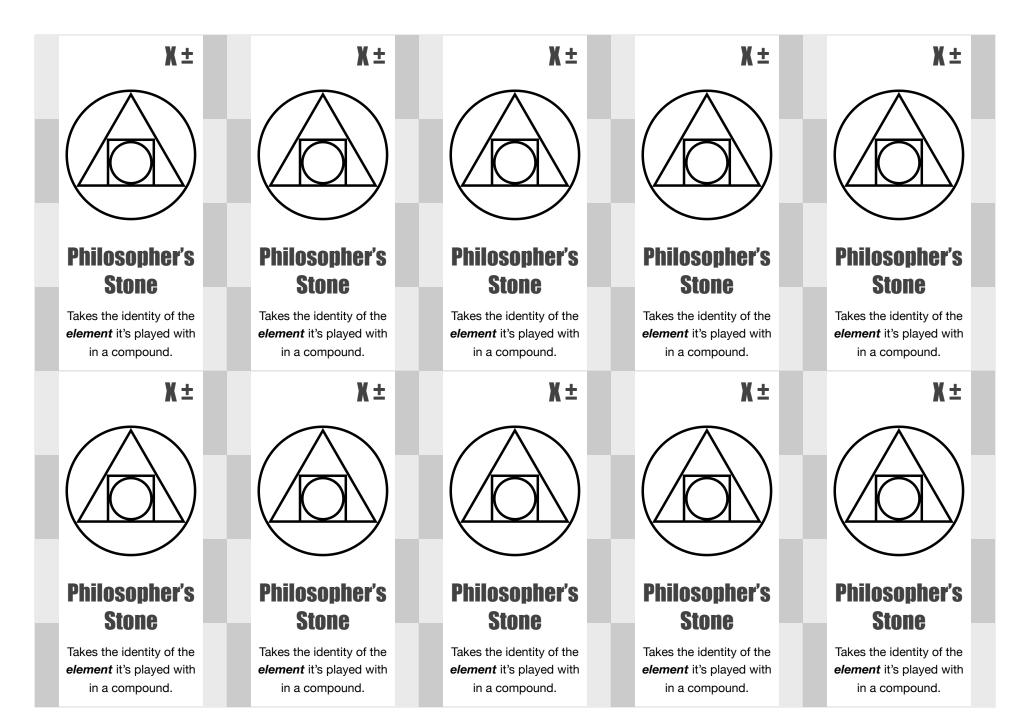






















Card Back





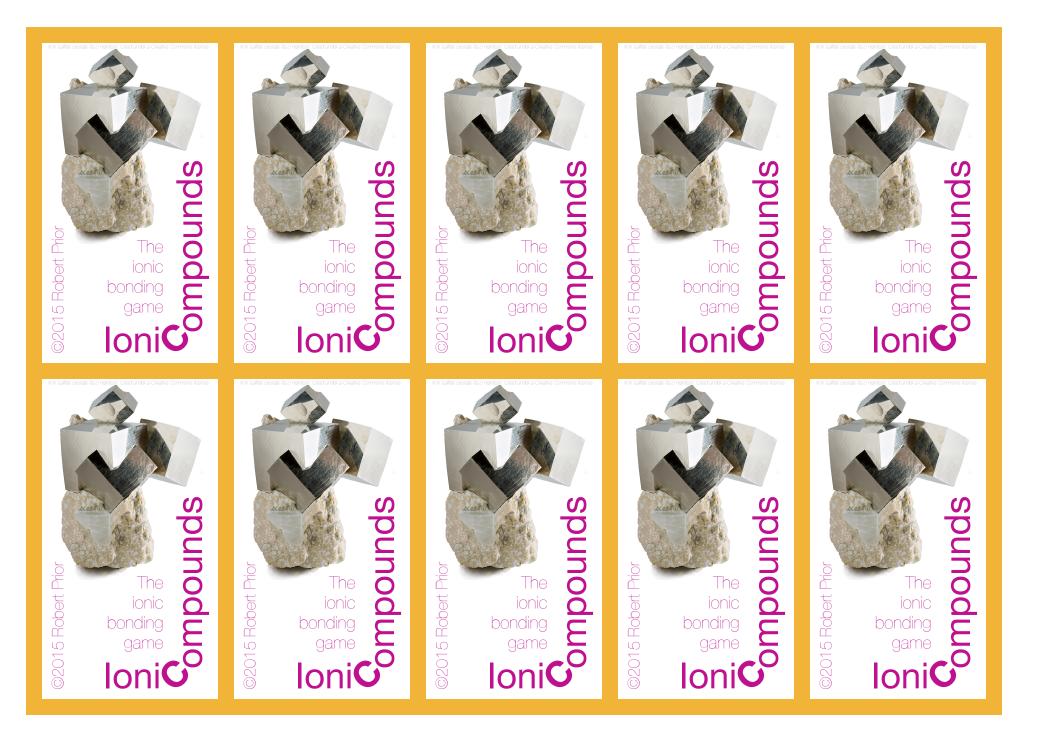












Print the rules booklet double-sided. Fold and staple in the centre, then trim the edges.

Science is the great antidote to the poison of enthusiasm and superstition.

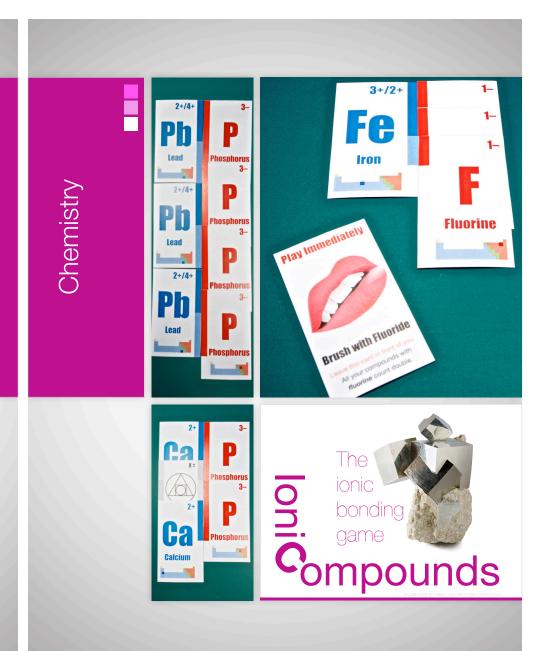
Adam Smith, The Wealth of Nations

IoniCompounds is a fun way for students to practice forming ionic compounds. The unique ion cards make is easy to visually balance ionic compounds, while the special cards keep play exciting until the last turn.



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game

starting the

Game **Rules**

Game Components

There are two types of card: ion cards and special cards.

Ion cards are marked with the name and formula of the ion. Elemental ions also have their location on the periodic table indicated. All ions have their charge in the upper-right corner, and a stripe corresponding to their charge along one side.

Special cards are marked with a name, a picture, and instructions. Some special cards are marked "Play Immediately" and must be used as soon as they are drawn. Others are marked "Play Any Time" and may be used at any time (even during another players turn). If a special card doesn't tell you who to play it on, you may play it on anyone (although that usually means helping another player, so this is only useful in team play).

Setting Up the Game

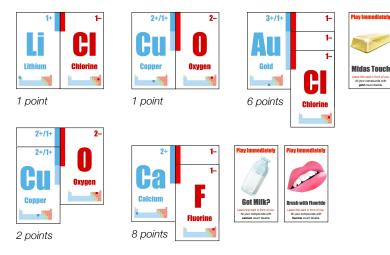
Shuffle the deck and deal 5 cards to each player. Place the unused cards face down in the middle of the table. This is the deck. Leave room for a discard pile beside the deck.

Any Play Immediately cards must now be played.

Scoring the game

Every compound you play scores points equal to the product of the number of positive ions times the number of negative ions.

Some special cards will increase how much some compounds are worth. These effects stack.



Variants

Trading

Players can trade cards among themselves.

Team Play

In a four-player game, players are teamed with the player directly across the table from them. They still play independently, but their scores are added together at the end of the game.

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Chemistry

game

playing the

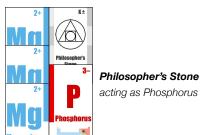
Interrupting a Turn

Cards take effect in the order they are played. This means a turn can be interrupted by another player playing a **Play Any Time** card. Apply the effects of the card they played before continuing the turn.

Note: a **Spill Kit** card will cancel the effects of a **Spill** card if it is played *immediately after* the **Spill** card.

Using The Philosopher's Stone

The **Philosopher's Stone** card functions like a wild card: it takes on the identity of the element it is played with.



The Philosopher's Stone

cannot be played by itself: it must be played with at least one card for the element it is representing. More than

is representing. More than
one Philosopher's Stone card can be played to make a
compound, as long as this rule is followed.

Ending the game

When a player draws the last card from the deck, the game is over at the end of their turn. Any cards not played by then are lost.

Ion Cards

2 elemental ion 0xygen elemental ion 3+/1+ elemental ion (multivalent metal) Gold polyatomic ion

Special Cards





play immediately (one use)



play immediately (permanent)

Printing the Cards

The cards are designed to be printed on standard business card stock, although they can also be printed on card stock and cut out. While not strictly necessary, printing the card backs makes the deck look nicer.

2

Playing the Game

Start the game by deciding who goes first. That person will take their turn, followed by the person to their left, and so on around the table. When the deck is empty the game is over; total up each player's score and determine the winner.

Player Turn

A player begins their turn by drawing a card from the deck. If it is a **Play Immediately** card they must do so.

Next they can play as many cards as they like. A player is never forced to play a card that does not say **Play Immediately**.

lon cards are played to make compounds: a compound must be balanced: if the player places an unbalanced compound in front of them it is thrown in the discard pile.

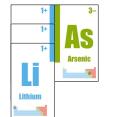
A compound may only have one type of cation and one type of anion. This includes the charges of multivalent metals; for example, a compound may not contain both *copper I* and *copper II*.

More than one compound can be made if the player has enough cards. Compounds are left in front of the player until the end of the game.

Cards that are discarded are placed in the discard pile.

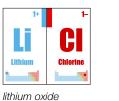
When a player has no more cards to play, their turn is over. The player to the left begins their turn.

Balanced Compounds

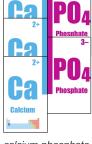


lithium arsenide

2+/1+ 2+/1+ Copper Copper I oxide





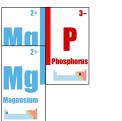


calcium phosphate

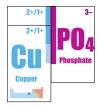


calcium oxide

Unbalanced Compounds



unbalanced charges



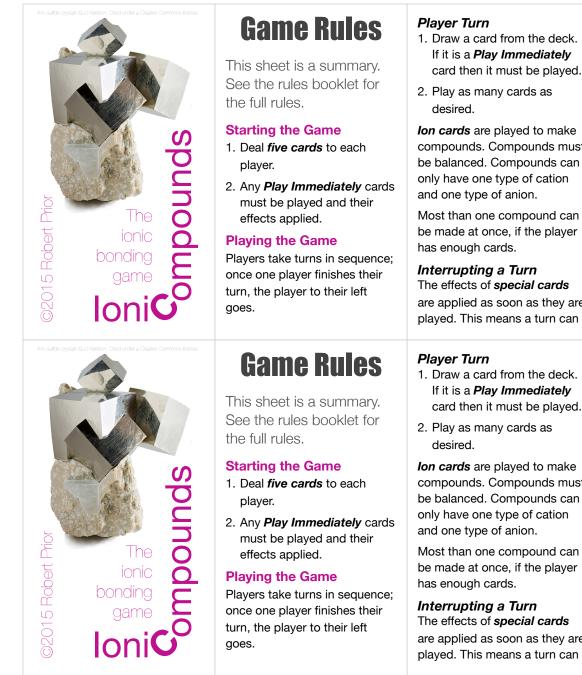
contains both copper I & copper II The stripes on the ion cards are an easy way of determining if the compound is balanced or not.

Chemistry

playing the game

4

Short-Form Rules



1. Draw a card from the deck. If it is a *Play Immediately*

Ion cards are played to make compounds. Compounds must be balanced. Compounds can only have one type of cation

Most than one compound can be made at once, if the player

are applied as soon as they are played. This means a turn can

- 1. Draw a card from the deck. If it is a *Play Immediately*

lon cards are played to make compounds. Compounds must be balanced. Compounds can only have one type of cation

Most than one compound can be made at once, if the player

The effects of special cards are applied as soon as they are played. This means a turn can

be interrupted by another player playing a Play Any Time card.

Ending the Game

When a player draws the last card from the deck, the game is over at the end of their turn.

Scoring the Game

Every compound played scores points equal to the number of cations times the number of anions.

Some special cards increase a compound's score. These effects stack.

be interrupted by another

Ending the Game

Scoring the Game

card.

anions.

effects stack.

player playing a Play Any Time

When a player draws the last

card from the deck, the game

is over at the end of their turn.

Every compound played scores

points equal to the number of

Some special cards increase a

compound's score. These

cations times the number of



calcium fluoride 8 points

Storage Box

- 1. Score all dashed lines.
- 2. Cut all solid lines.
- Fold all dashed lines away from you, except the lines under the "glue" markings, which fold towards you.
- 4. Glue the tabs marked "glue" together.

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5. Fold the tabs under and glue to the inside of the box.

