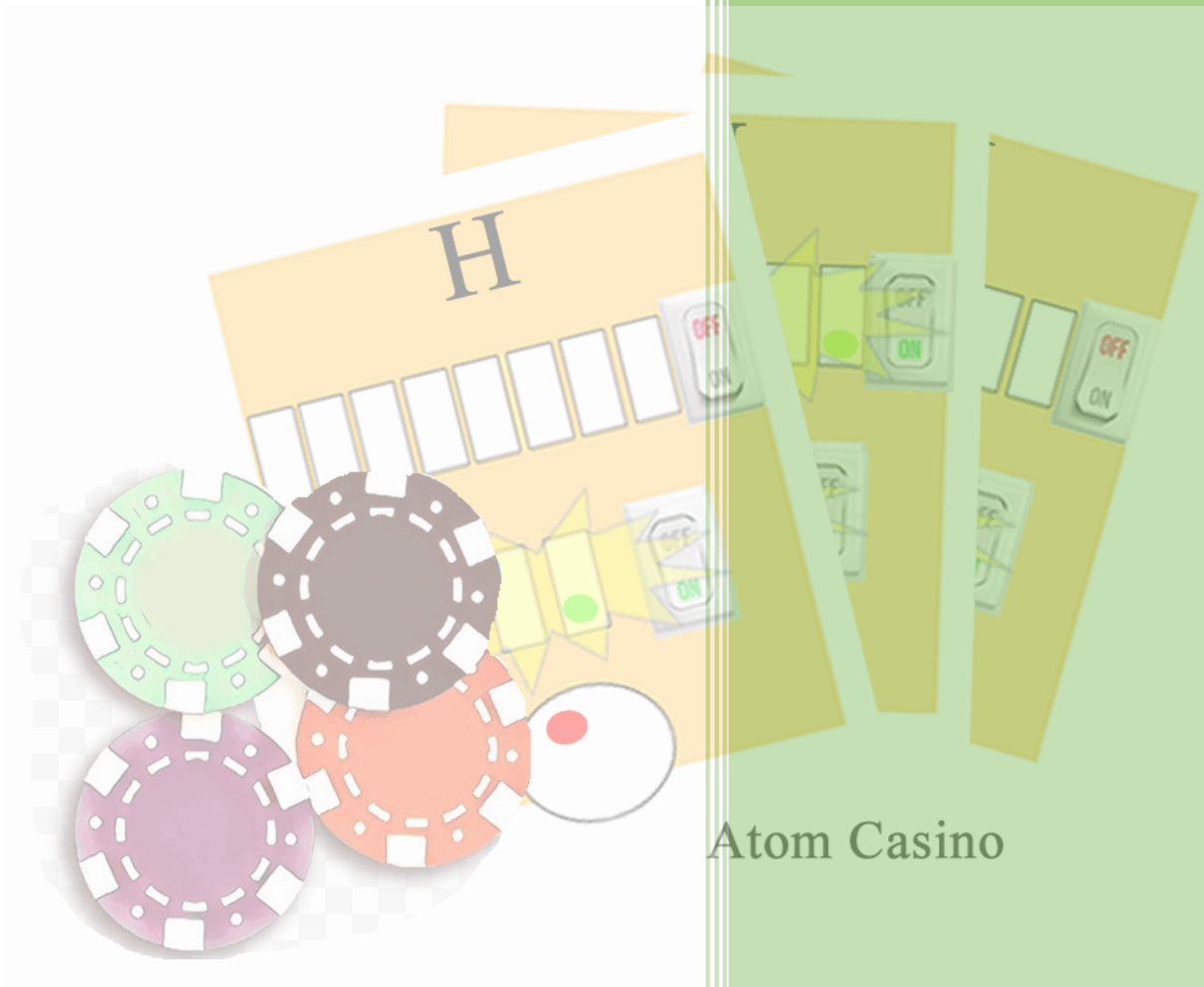


# The atomic card game

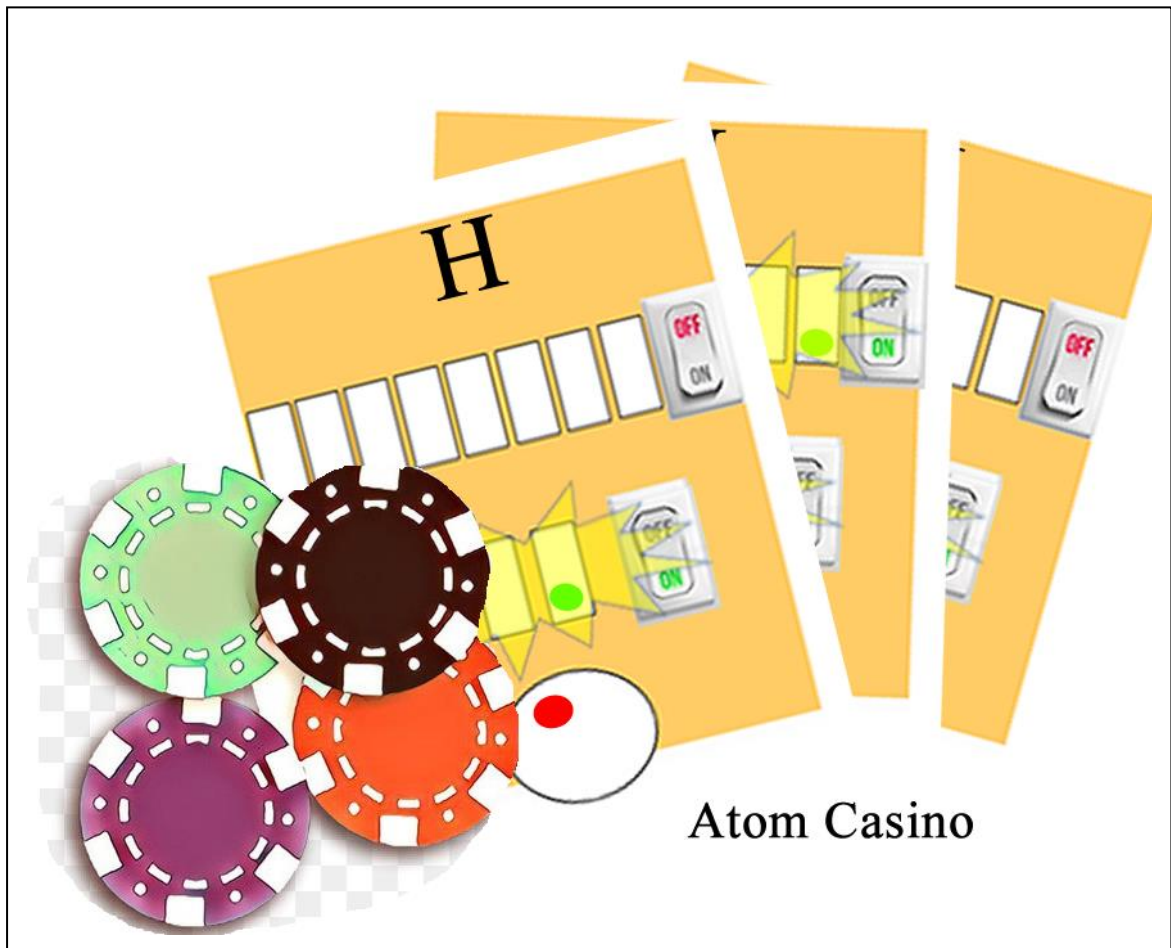


Atom Casino

Peter Razos

# Atom Casino

## Card game



Let's play the atom card game. The first person to lose all their cards wins.

Step 1 – Correctly fill in the cards on the next three pages for the first ten elements. Hydrogen and helium are already done for you.

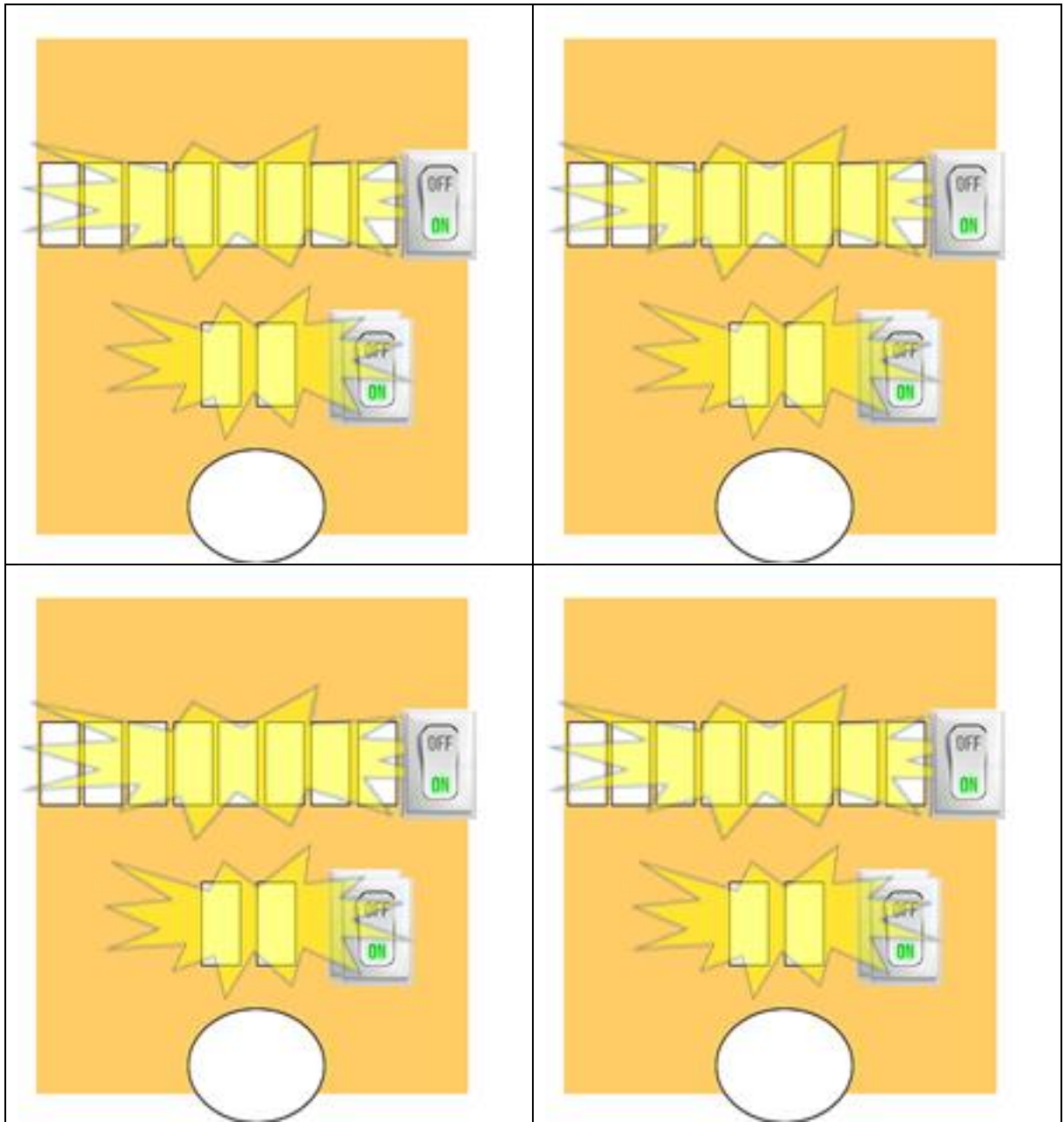
Step 2 – Cut each card out and laminate it. You should now have ten cards, one for each of the first ten elements.

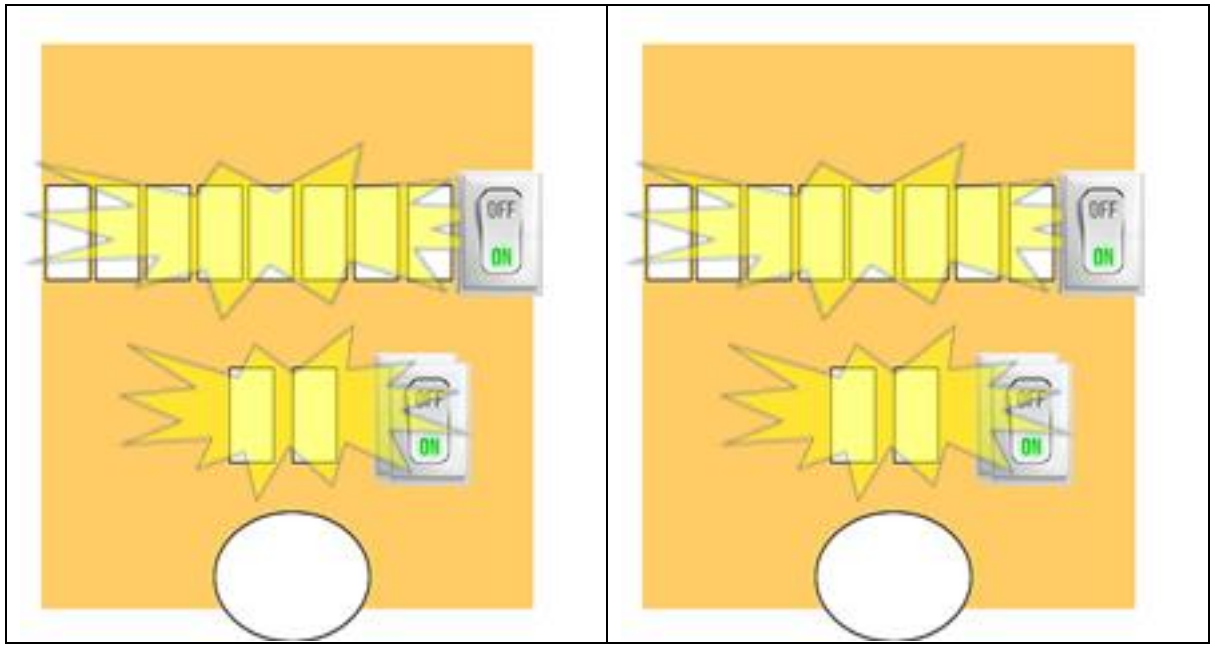
# Hydrogen



# Helium







## Rules of the game

This is played in groups of 4.

1. Each player places their 10 cards in a pile and the cards are shuffled.
2. Each player is dealt ten random cards.
3. The first player starts the game by throwing a card of their choice other than helium or neon. This now is the top card and visible to all players.
4. The next player tries to form a chemical bond between the first card on the deck and up to three of his/her cards in their hand.

For example, If the first card on the deck is boron the player can elect to throw the following cards if they had them in their hand:

- a nitrogen atom
- an oxygen and a fluorine atom
- three fluorine atoms

or any other combination that will successfully take boron's three electrons.

5. Helium and neon are wild cards and can be thrown out at any time during the game.
6. If a player cannot successfully react any of the atoms in their hand with the deck then they pick up the bottom card from the deck.

Rules can be modified to suit each class as long as the game requires all participants to exhibit chemical knowledge of atoms.

An interesting modification is to allow students to bluff. If a student is successful in bluffing, then all other players pick up one card each. If a player is not successful in bluffing then the player picks up two cards.



On the right is an example. Beryllium is on top of the pack. This player is bonding a carbon and a beryllium with the top card.

Is this a bluff or a proper chemical bond that will result in a stable compound?

***This will work as the carbon atom will take two electrons from each beryllium to become stable and the two beryllium atoms by giving away two electrons each also become stable. The compound formed is beryllium carbide ( $Be_2C$ )***

