

Rulebook

By. Zachary Thammavongsy

Background

Amino acids are molecules that are essential building blocks in our bodies. When amino acids are LINKed, they are called polypeptides. When a lot of amino acids are LINKed together, they make up a protein. Proteins are vital to the function and regulation of all living organisms. There are 20 amino acids with unique structures that all biology and biochemistry students must learn. In 1968, these amino acids were each given a one letter symbol (by Dr. Margaret Dayhoff) to easily display long polypeptide chains in a limited space. Today, college students who take biology courses are tested on memorizing these one letter symbols to build a foundation for more complex biological theories and applications. LINK was designed to help students study amino acid structures and their one letter symbol in a fun and unique way. LINK can be used as a flash card game for solo learning, or can be played competitively to study with others.

Object of the Game

The object of LINK is to decipher words created by other players using the one letter amino acid code. Players will display the molecular structures of their word LINKed together, end-to-end, on the back of the card, while hiding the one letter code on the front side. Others will have a limited amount of time to guess their opponents' words. For each correct answer, the player will receive LINK cards. The player with the most LINK cards at the end of the game wins.

Components

86 LINK Cards
(35 White & 51 Black)
8 Screens



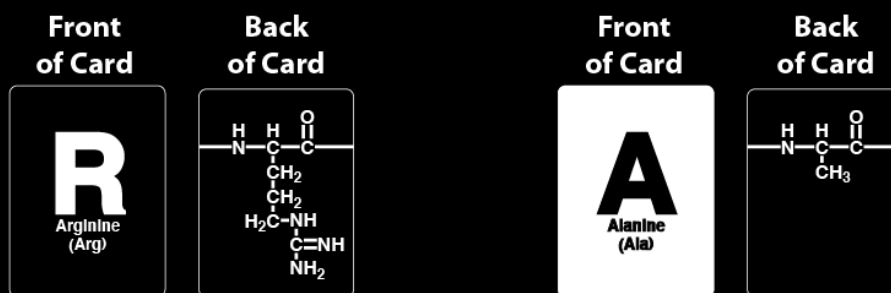
White LINK Cards
(Vowels)



Black LINK Cards
(Consonants)

Set-up

1. Gather all players into a circle
2. Each player receives one "Key Card"
3. Divide the LINK cards into two piles (white LINK Cards (Vowels) and black LINK cards (Consonants))
4. Shuffle each pile and place them in the center with the back of the card (molecular structure) facing up.
5. Pass out a set of LINK cards (2 white LINK cards and 4 black LINK cards) to each player, making sure the back of the card is facing up.



Once every player has the appropriate number of cards, each player must look at the front of their LINK cards (letters facing them) and create a word. All 6 LINK cards do not need to be used when creating a word.

Example...



Any unused LINK cards must be placed back into the center pile.

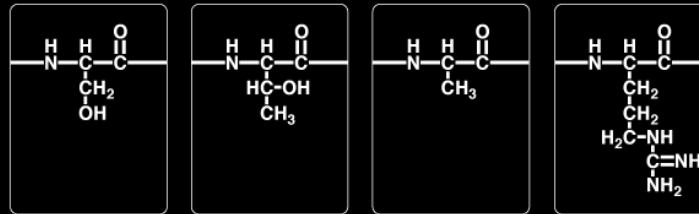
If any player cannot produce a word with the LINK cards provided, they will be given a new set of LINK cards.

Once all players have made a word, the game can begin!

Game Play

Each player takes a turn to reveal their LINK cards. The player whose turn it is must place their LINK cards down in front of them with the back of the card facing up. The player must lay down their LINK cards from the opponent's left to right.

Example...



Cards must be laid down in the direction of the opponent's view point



Every other player has one minute to guess the word. First person to guess the word correctly wins the LINK cards. The LINK cards that has been won goes to a victory pile next to the winner.

If no one can correctly guess the word during the time limit, then the player who laid down the LINK cards keeps all their cards. That player can then place their LINK cards in their victory pile.

The round continues until all players have gone.

Penalty

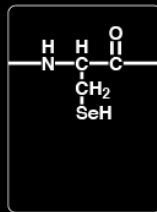
If a player made up a word that is not in the oxford dictionary, they forfeit their turn and the next two turns to guess.

Winner!

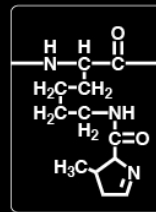
The winner is determined by the amount of LINK cards a player has in their victory pile after one round of playing.

Optional

There are two extra amino acids included in the box (selenocysteine and pyrrolysine). These two amino acids are not normally seen in the classroom, but have played an important role in understanding biological functions in proteins and enzymes. Players can take a vote to play with the two extra amino acids or to leave them out.



U
Selenocysteine
(Sec)



O
Pyrrolysine
(Pyl)

Screen Protector

Copyright © d-ORBITAL GAMES, LLC. All Rights Reserved.

Players can use the screen protector to hide their LINK cards from other players before their turn is up. The screen protector also acts as a legend for players to refer to in case they forgot the symbol for the amino acids.

Credits

Game Creator: Zachary Thammavongsy (M.S.)
Game Editors: Brian Lydon (M.S.) & Kim Le (M.S.)

Legal

Copyright © *d*-Orbital Games, LLC. All Rights Reserved.

Find Out More

For more information, please visit our website at
www.dOrbitalGames.org.

You can also email us at info@dorbitalgames.org

**d-ORBITAL
GAMES**

Copyright 2017 *d-ORBITAL GAMES, LLC*