10+ | 2 - 4 | 45-60

Immune System

You Make Me Sick!

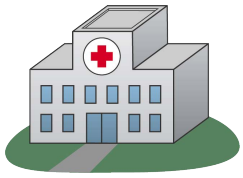
All of your immune cells work together to defend your body from infections. In this board game, you will fight 11 common diseases while you learn about the immune system. As you move around the game board, you will encounter disease causing viruses and bacteria, so watch out! Can you make it home from the hospital by defending your body from infection?

Provided for you:

- Board game sheets
- 1 Answer sheet
- 45 Disease Cards
- 29 Health Cards
- 140 Immune Cell Tokens
- 1 Rules sheet

You will need to provide:

- 4 small items such as coins or buttons to sever as player pieces
- 1 six-sided die



Hospital

Home

Set Up

1. Before playing the game, print out the game board, rule sheet, answer sheet, Disease Cards, Health Cards, and Immune Cell Tokens. Find small items like coins or buttons to serve as player pieces.
2. Tape together the game board, cut out the immune cell tokens, disease and health cards.
3. Read aloud the key terms found on the last page of this document. These terms will be used frequently during gameplay, so pay attention! Knowing what they mean will help you while you play.
4. Shuffle the Health Cards and the Disease Cards. Place each stack of cards face down on their corresponding area on the board.
5. Place the immune cell tokens near the board. This will serve as the bank, where new tokens will be paid from. Each player starts with 15 immune cell tokens.
6. Place your player pieces on the Hospital space.

Play the Game!

Objective: Get Home from the Hospital

The goal of the game is to completely recover from an illness by traveling from the Hospital to Home with the most amount of immune cell tokens. Collecting Disease Cards, Health Cards, and Immune Cell Tokens as you play will help you to win the game.

Ending the Game: When any player reaches Home, that player should draw the top card from the disease pile and attempt to answer it.
If answered correctly: The player adds the Disease Card to their hand, receives 10 bonus Immune Cell Tokens, and the game ends.

If answered incorrectly: the player must pay the amount of Immune Cell Tokens listed on the bottom of the card and the game ends. If the player cannot pay, they must return to the hospital and the game continues.

How to Win: At the game end, players will count up their immune cell tokens and the value of any Disease Cards they have in their hand, and the player who has the most wins the game.

Getting Started

- Roll the die to see which player goes first. The person with the highest number will go first, and play will continue clockwise from the first player.
- Player #1 will roll the die and move forward that number of spaces on the board. If the player lands on an **unoccupied** space, they will do one of the following:

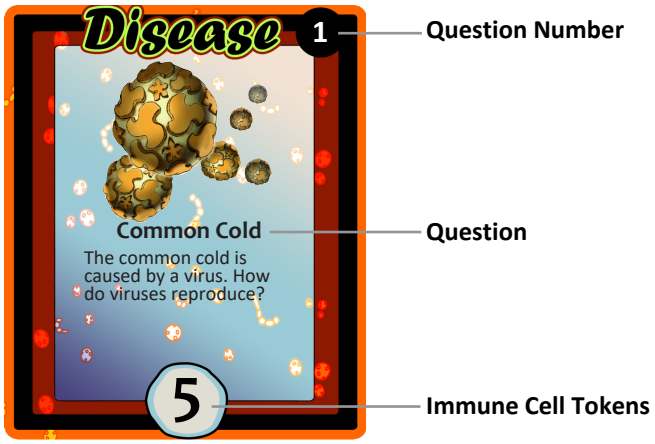
  - **Disease Space:** Draw the top card from the Disease card pile. Read the card aloud and attempt to answer it. Only the player whose turn it is should answer. Other players should not attempt to answer. The player to the right of player 1 will check the answer sheet to determine if the answer given is correct.

    If correct: Add the disease card to your hand.

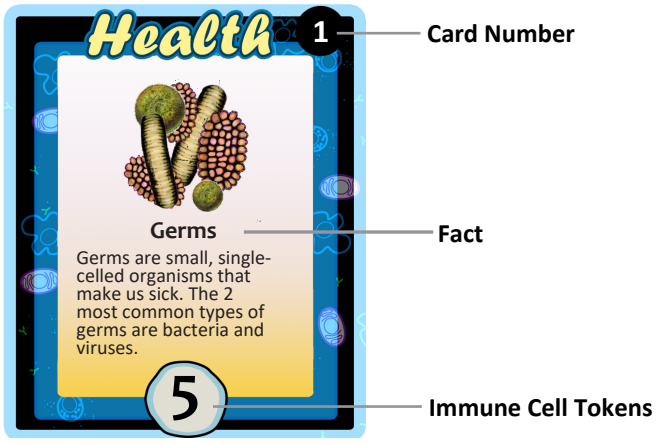
    If incorrect: Pay the bank the number of immune cell tokens shown at the bottom of the card and remain on the space. Add the disease card to your hand. If you cannot pay the amount, you must immediately return to the hospital.

    If you have to return to the hospital, on your next turn, read one health card aloud and follow the instructions on the card. Take 10 immune cell tokens from the bank. Then play your turn as normal.

Disease Card



Health Card



  - **Health Space:** Draw the top card from the Health card pile. Read the card aloud. Add the health card to your hand. If the card has an immune cell token value, take the amount of immune cell tokens shown at the bottom of the card from the bank.
  - **Yay Space:** You did something healthy. Follow the instructions on the space.
  - **Ew Space:** You did something unhealthy. Follow the instructions on the space.
  - **Blank Spaces:** Do nothing. Stay on this space until your next turn.

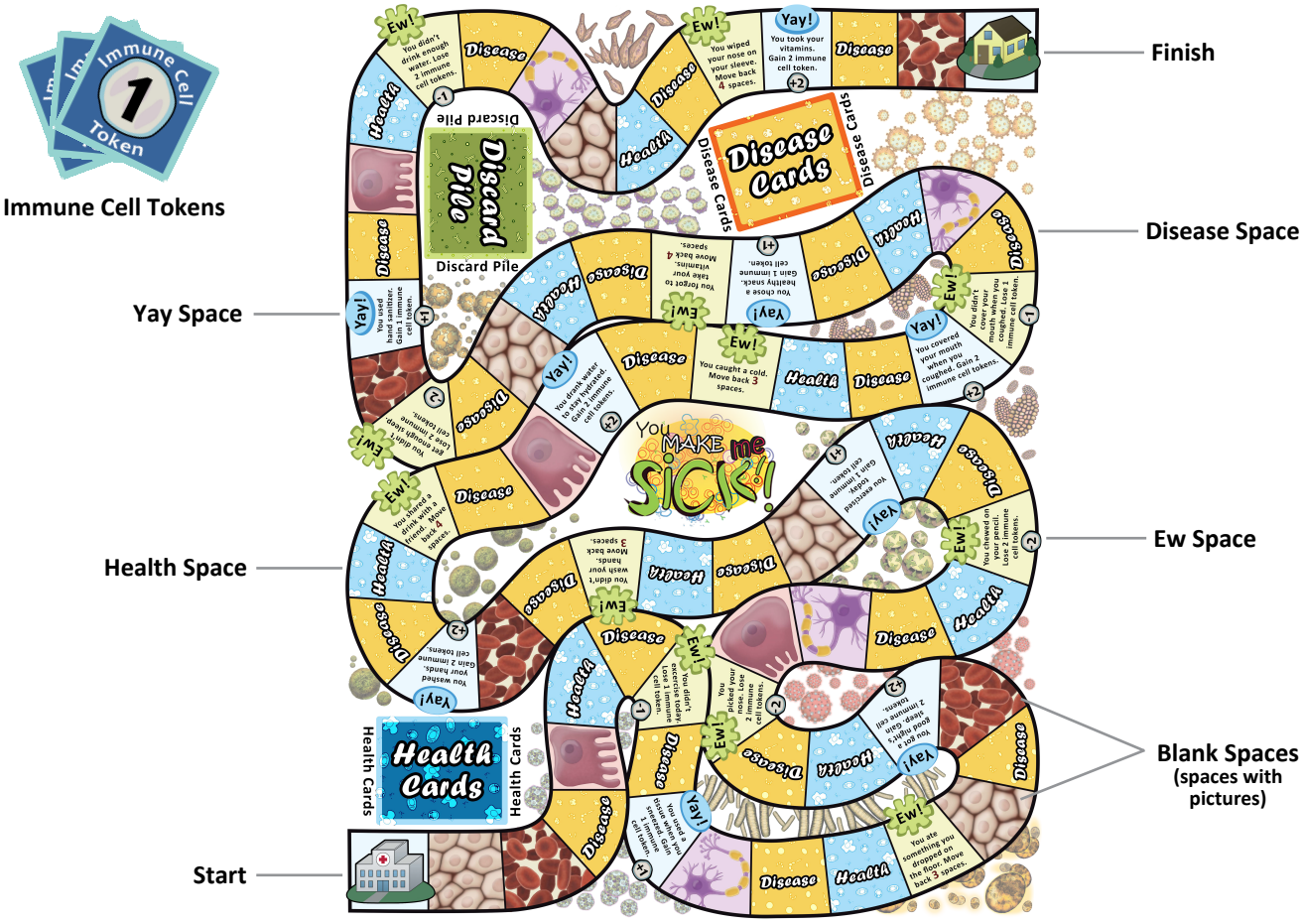
If a player lands on a space that is already occupied, You Make Me Sick!

◊ The player who landed on the occupied space should play the space as normal. Follow the rules for Disease, Health, Yay, and Ew spaces listed above.

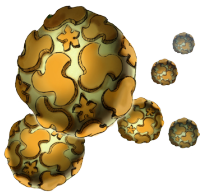
Then:

1. The player who has landed on the occupied space must now attempt to infect the player who was there first by using a disease card in their hand.
   - If the player who landed on the occupied space does not have a disease card in their hand, the space is shared by both players.
2. The player who landed on the occupied space chooses a disease card from their hand and reads the question to the player who occupied the space first.
3. If the player who occupied the space first has a Vaccine or Antibiotics card in their hand, they can use it to defend themselves without having to answer the question.
   - If the question is answered correctly: the space is shared by both players.
   - If the question is answered incorrectly: the player who occupied the space first must pay the amount of immune cell tokens listed on the disease card to the bank.
   - If the player cannot pay the amount of immune cell tokens, they must return to the hospital.
4. The disease card used is then placed in the discard pile.

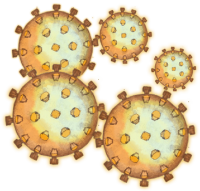
◊ Each additional player will take their turn and follow the same rules until someone reaches Home. Once any player reaches home, the game is over. See "How to Win" for more information.



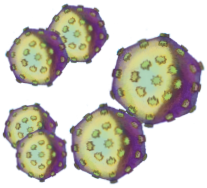
Answer Sheet for You Make Me Sick!



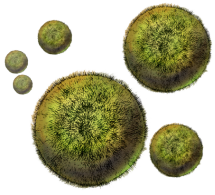
1. Viruses must infect living cell to reproduce. They cannot reproduce on their own.
2. The symptoms of the common cold are: runny nose, cough, sneezing, and fatigue (feeling tired).
3. A. Antibodies tag the virus so that macrophages (a type of immune cell), can identify and "eat" the virus. B. Antibodies can attach themselves to the outside of the virus and prevent them from moving and reproducing.
4. The common cold is caused by many different strains of a type of virus called a rhinovirus, which mutate rapidly. Because vaccines can only protect against a single type of virus, a vaccine for the common cold cannot currently be developed.
5. False



6. The flu can affect the lungs, nose, ears, throat, and mouth.
7. Covering your mouth when you cough or sneeze, avoiding contact with others, wearing a mask or face covering, washing your hands thoroughly and frequently.
8. A virus
9. False
10. An itchy, red rash with blisters
11. Vaccines work by taking a small piece of a virus or a weakened version of a virus and introducing it into the body. This teaches your body to create antibodies to the virus. The next time the body is exposed to the same virus, the antibodies protect you from getting sick.

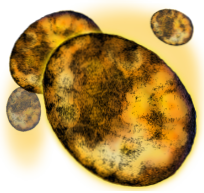


12. False
13. No, not all bacteria are harmful. Some bacteria, like the kinds that live in your digestive system, are beneficial and help you to digest the foods you eat.
14. Fever increases your body temperature. This increase in temperature is your body's attempt at making it too hot for viruses or bacteria to reproduce inside the body.
15. Macrophages eat foreign stuff like viruses and bacteria. When a macrophage finds a virus or bacterium, it will reach out, surround the virus/bacterium, and then engulf it. Once it is engulfed, it breaks down and digests the virus/bacterium.



16. Sore throat, fever, difficult and painful swallowing, red/swollen tonsils, swollen lymph nodes in the neck
17. Yes
18. Tetanus affects nervous tissue, also known as nerves or neurons. Nerves carry the signals that make your muscles move.
19. Nope. The bacteria that cause tetanus can live on many different objects or surfaces, not just rusty ones.
20. Tetanus is caused by a bacteria. The bacteria enter the body through a cut or puncture wound and begin to release a toxin, which can cause paralysis.

21. Yes, antibiotics are effective at curing cases of pink eye caused by bacteria. Antibiotics are not effective at curing viral infections.
22. Neutrophils are often found in pus.



23. Washing your hands before and after touching your eyes as well as not sharing cosmetics or other items that are used around the eye area.

24. No. Even though some cases of pink eye can be caused by viruses, a vaccine to prevent it has yet to be developed.

25. True

26. Symptoms of measles include: high fever, cough, runny nose, red and watery eyes, and a rash of itchy red bumps.

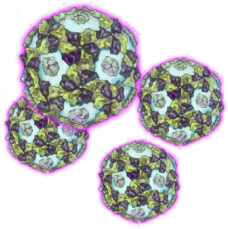
27. When a disease is contagious, it means that it can be easily spread to other people.

28. Antibodies are produced by B cells.

29. The inability to move parts of your body is called paralysis.

30. Polio is caused by a virus.

31. These special tags are called antibodies. They can latch on to the polio virus and stop it from reproducing. This prevents you from getting sick.

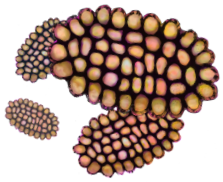


32. True

33. Viruses must enter a cell and use that cell to make copies of themselves. Bacteria can reproduce on their own without needing to enter a body cell.

34. Symptoms of an ear infection can include: pain in the ear, a feeling of "fullness" in the ear, trouble hearing, nausea, loss of balance, and pus drainage from the ear.

35. B cells produce antibodies.

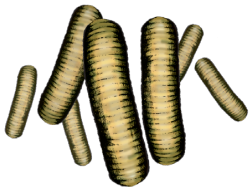


36. False. Both bacteria and viruses can cause ear infections.

37. False

38. Symptoms of food poisoning include: nausea, vomiting, abdominal pain/cramping, diarrhea, sweating, and fever.

39. You can prevent food poisoning by washing fruits and vegetables before eating and fully cooking foods like eggs, seafood, and meat.

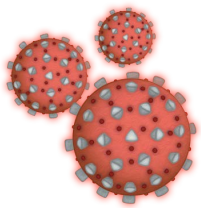


40. Because norovirues are a type of virus, antibiotics (which only kill bacteria), would not be effective in treating food poisoning.

41. COVID-19 is caused by a virus.

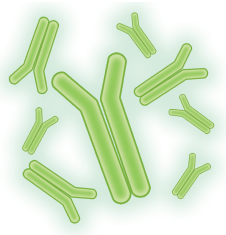
42. Symptoms of COVID-19 that affect the respiratory system are: cough, shortness or breath/ trouble breathing, sore throat, congestion, and a runny nose.

43. The 19 stands for 2019, the year the disease was first discovered.



44. False. While COVID-19 is most often spread through person-to-person contact, it can also be spread by touching infected surfaces like doorknobs or handrails, and then touching your eyes, mouth, or nose.

45. True. Wearing a face mask can prevent droplets from sneezes or coughs from reaching others. This helps to stop the spread of the disease.



Key Terms

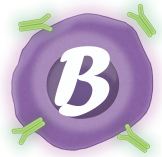
Antibodies: Special tags that stick to bacteria and viruses inside the body. They cover the surface of these germs to signal the immune system to get rid of them.

Bacteria: Bacteria are single-celled organisms that can be helpful or harmful. The immune system fights off the harmful bacteria that can make you sick. Helpful bacteria live in our gut and help us to digest food. The immune system leaves this type of bacteria alone.

Cell: The smallest unit of life. Living things can be made up of a single cell (like bacteria), or many different types of cells (like humans). All living things are made of cells.

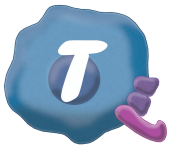
Contagious: Able to be spread easily. Diseases that can be spread from person to person or from surfaces to people are called contagious.

Germ: A microscopic single celled organism or agent that infects our bodies and makes us sick (causes disease). The two most common types of germs are bacteria and viruses.



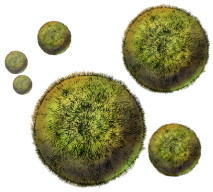
Immune cells: There are lots of different kinds of immune cells; macrophages, T cells and B cells do most of the fighting against germs.

- **B cells** make antibodies, which are special tags that stick to the germs and help the body get rid of them. They are called B cells because they come from your bones.
- **Macrophages** can surround and digest germs or infected cells.
- **T cells** are the "commanders" of our immune system and can activate other immune cells, like B cells, to help fight disease. They are called T cells because they come from your thymus gland.



Immune system: The cells, tissues, and organs that detect and fight infections caused by germs. Your immune system is always learning, changing, and evolving to keep you healthy.

Immunity: When your immune cells and antibodies can get rid of certain germs in your body before they ever have a chance to make you sick.



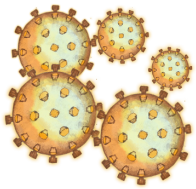
Infection: When a disease-causing organism or agent (a germ) enters our bodies, reproduces, and makes us sick.

Organism: A living thing. Plants, animals and bacteria are all organisms.

Paralysis: The loss of movement in a part of the body, like the arms or legs. Some bacteria and viruses produce toxins that can cause paralysis.

Sickness: We feel sick when a germ infects our cells and our immune system is fighting hard to get rid of it. For example, a fever makes your body too hot for germs to survive, and runny noses, sneezing and coughing are all ways the body uses to get the germs out of the body.

Toxins: Some bacteria release toxins in our body. Toxins are poisons made by living things that make us sick. Our immune system can neutralize some toxins with antibodies.



Vaccines: Vaccines give you immunity. They help your immune system learn what the germs look like, so they can find them faster, and prevent you from getting sick. Your immune system will usually remember what those germs look like for the rest of your life.

Viruses: Viruses are very small (much, much smaller than a cell) that cannot live on their own; they need to infect another cell to reproduce.

You Make me Sick!

Credits

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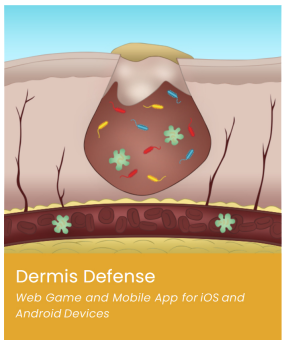

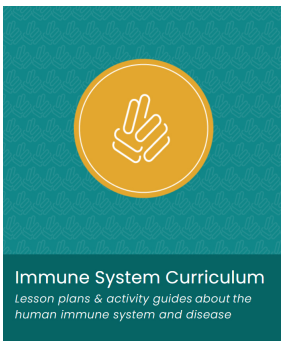

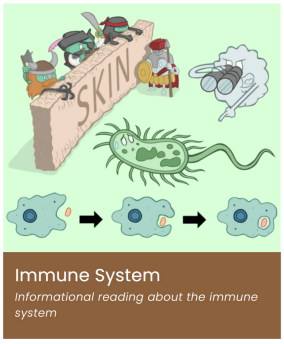

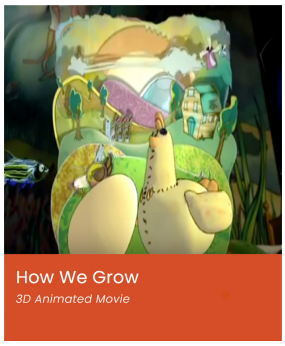

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Ew!

You didn't drink enough water. Lose 2 immune cell tokens.

-1

Disease

Health

Disease

Health

Discard Pile

Discard Pile

Discard Pile

Yay!

You used hand sanitizer. Gain 1 immune cell token.

+1

Disease

Health

Disease

Disease

Yay!

You drank water to stay hydrated. Gain 2 immune cell tokens.

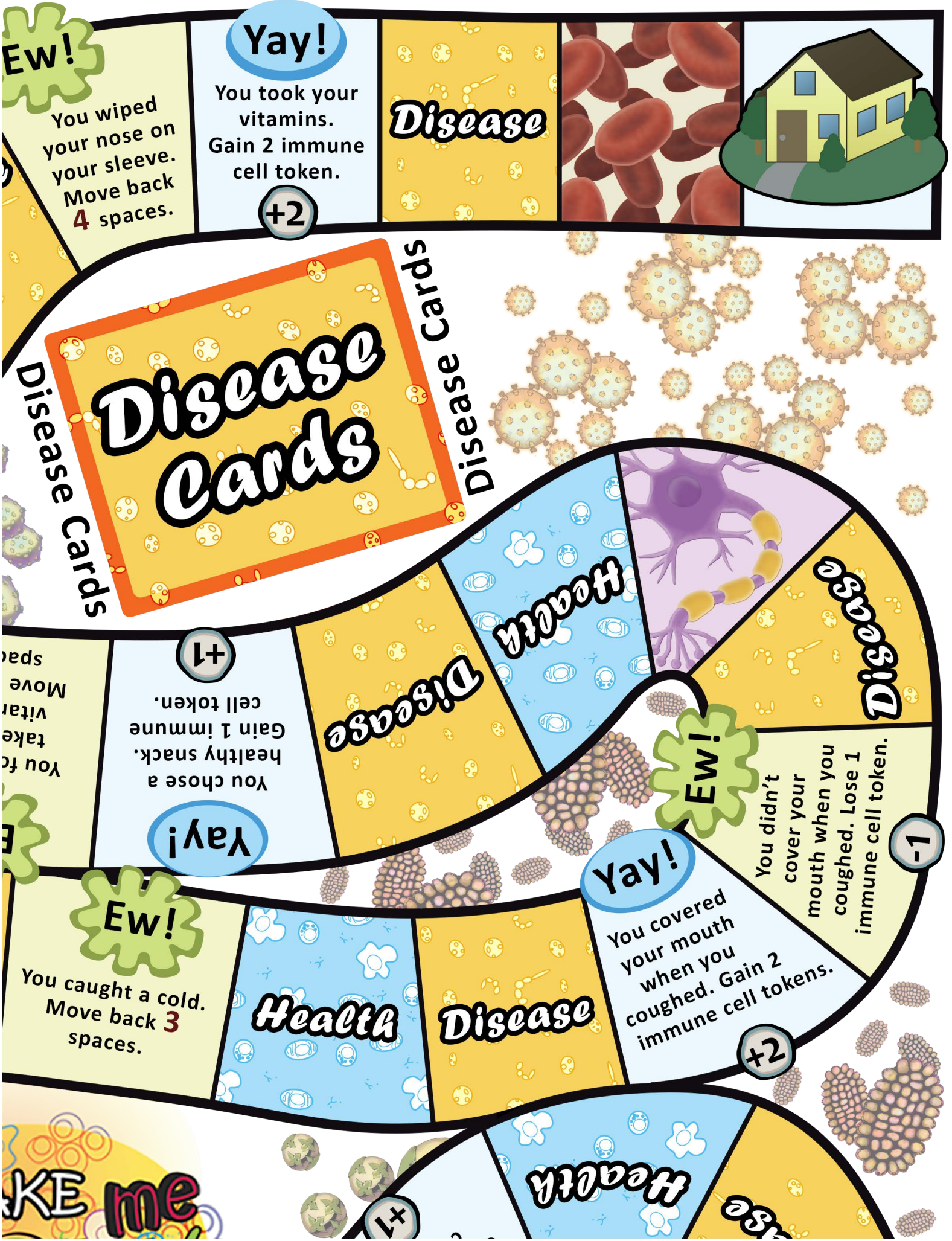
+2

Disease

-2

You didn't get enough sleep. Lose 2 immune cell tokens.

Ew!


Ew!
You wiped your nose on your sleeve. Move back 4 spaces.
Yay!
You took your vitamins. Gain 2 immune cell token.
+2
Disease
Disease Cards
Disease Cards
Disease Cards
Health
Disease
Yay!
You didn't cover your mouth when you coughed. Lose 1 immune cell token.
-1
Ew!
You covered your mouth when you coughed. Gain 2 immune cell tokens.
+2
Health
Disease
Yay!
You chose a healthy snack. Gain 1 immune cell token.
+1
Ew!
You caught a cold. Move back 3 spaces.
Health
Disease
Health
+1

Health Cards

Health Cards

Health Cards

Ew!

You shared a drink with a friend. Move back 4 spaces.

Disease

Health

Disease

Yay!

You washed your hands. Gain 2 immune cell tokens.

+2

Disease

Health

Disease

Ew!

You didn't wash your hands. Move back 3 spaces.

Disease

Health

Disease

Ew!

You didn't excercise today. Lose 1 immune cell token.

-1

Disease

Disease

Disease

Yay!

You used a tissue when you sneezed. Gain 1 immune cell token.

+1

Yay!

You exercised today. Gain 1 immune cell token.

Disease

Ew!

You chewed on your pencil. Lose 2 immune cell tokens.

-2

Health

Disease

Health

Disease

Ew!

You picked your nose. Lose 2 immune cell tokens.

-2

Yay!

You got a good night's sleep. Gain 2 immune cell tokens.

+2

Disease

Disease

Ew!

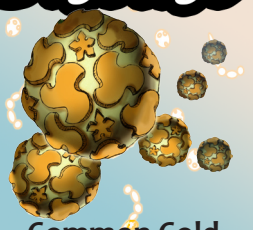
You ate something you dropped on the floor. Move back 3 spaces.

Health

Disease

Yay!

Disease 1



Common Cold

The common cold is caused by a virus. How do viruses reproduce?

5

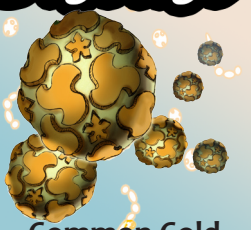
Disease 2

Common Cold

The virus that causes the common cold infects the respiratory system. What are the symptoms of a cold?

5

Disease 3

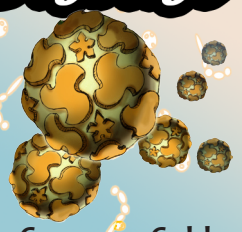


Common Cold

Describe one of the ways that antibodies help our immune system fight viruses like the common cold.

5

Disease 4

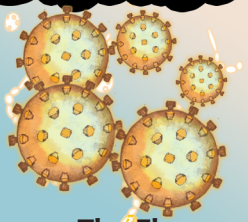


Common Cold

Many people catch a cold every year. Why isn't there a vaccine for the common cold?

5

Disease 5



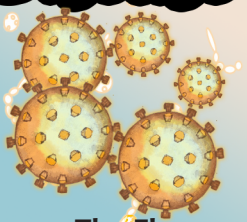
The Flu

The flu is caused by a virus.

True or False: Viruses can make copies of themselves outside of a host cell.

7

Disease 6

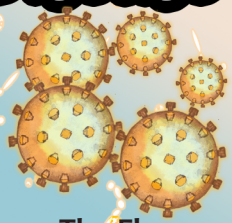


The Flu

The influenza virus causes the flu. Name 2 organs that can be affected by the flu.

7

Disease 7

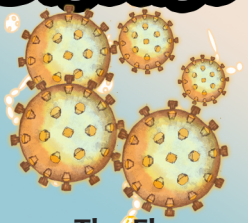


The Flu

The flu is caused by the influenza virus. If you have the flu, what is one action you can do to prevent spreading it to others?

7

Disease 8

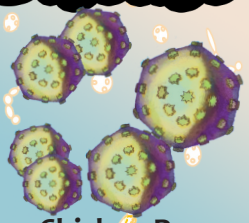


The Flu

What type of germ causes the flu?

7

Disease 9



Chicken Pox

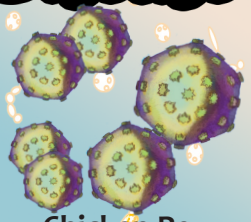
Chickenpox is caused by a virus.

True or False: A virus is a special kind of bacteria.

4

Disease Cards - Cut Along the Dotted Lines
You Make Me Sick!

Disease 10

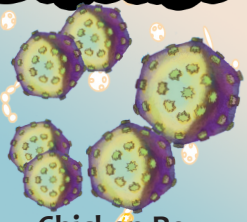


Chicken Pox

Chickenpox causes several symptoms. What symptoms of chickenpox appear on the skin?

4

Disease 11



Chicken Pox

The chickenpox vaccine prevents you from getting chickenpox. How do vaccines work?

4

Disease 12

Chicken Pox

Chickenpox is highly contagious.

True or False: Vaccines don't work against highly contagious diseases.

4

Disease 13

Strep Throat

Strep throat is caused by bacteria. Are all types of bacteria harmful? Why or why not?

6

Disease 14

Strep Throat

One of the symptoms of strep throat is a fever. How does a fever help your body to fight disease?

6

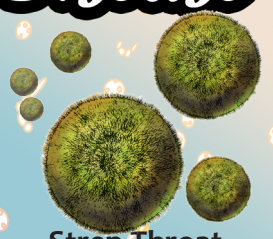
Disease 15

Strep Throat

Macrophages are a type of immune cell that helps to fight disease. What do macrophages do when they encounter bacteria or viruses?

6

Disease 16



Strep Throat

What are 2 symptoms of strep throat?

6

Disease 17

Tetanus

Tetanus is a disease caused by a toxin released by *Clostridium* bacteria. Can you get a vaccine that protects against tetanus?

2

Disease 18

Tetanus

Tetanus can cause paralysis. What tissue does tetanus affect?

2

Disease Cards - Cut Along the Dotted Lines
You Make Me Sick!

Disease 19

Tetanus

Stepping on a nail is one way to get Tetanus. Does the nail have to be rusty to give you Tetanus?

2

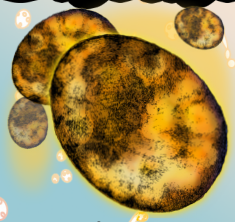
Disease 20

Tetanus

One of the symptoms of tetanus is paralysis. What causes tetanus, a virus or bacteria?

2

Disease 21

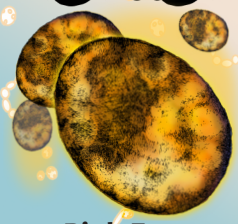


Pink Eye

Some cases of pink eye are caused by bacteria. Would antibiotics be effective at curing these cases?

3

Disease 22

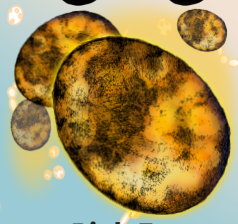


Pink Eye

A symptom of pink eye is the discharge of pus in the corners of the eye. Which type of immune cell is often found in pus?

3

Disease 23

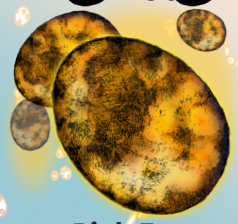


Pink Eye

Pink Eye is highly contagious. What are two ways you can prevent it?

3

Disease 24



Pink Eye

Some cases of pink eye are caused by viruses. Is there currently a vaccine to prevent pink eye?

3

Disease 25

Measles

Antibiotics are not effective against measles.

True or False: Measles is caused by a virus.

7

Disease 26

Measles

Name 1 symptom of measles.

7

Disease 27

Measles

Measles is highly contagious. What does it mean for a disease to be contagious?

7

Disease Cards - Cut Along the Dotted Lines
You Make Me Sick!

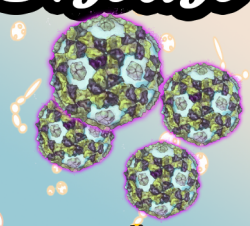
Disease 28

Measles

Antibodies are important for fighting viral infections like measles. Which type of immune cell produces antibodies?

7

Disease 29

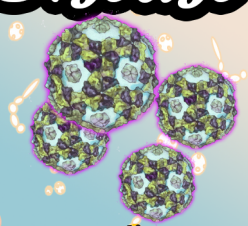


Polio

The polio virus infects the nerve cells that make your muscles move. What is it called when you can't move parts of your body?

8

Disease 30

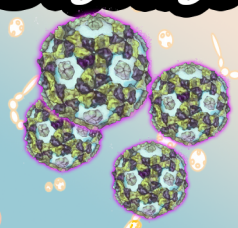


Polio

What type of germ causes polio, bacteria or a virus?

8

Disease 31

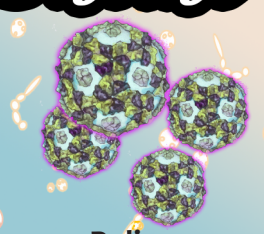


Polio

There is a vaccine for polio. After getting the vaccine your body starts producing special tags that can attach to the polio virus. What are these tags called?

8

Disease 32



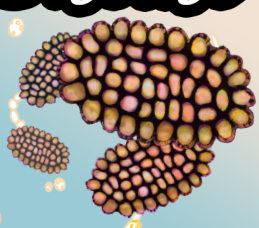
Polio

Polio can cause paralysis of the lower body.

True or False: There is a vaccine to prevent polio.

8

Disease 33

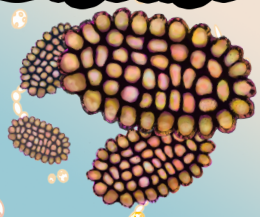


Ear Infections

Ear infections can be caused by either viruses or bacteria. Describe the difference between how the two reproduce.

1

Disease 34

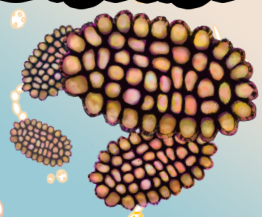


Ear Infections

Name 1 symptom of an ear infection.

1

Disease 35

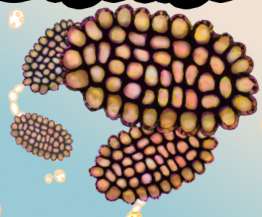


Ear Infections

B cells are immune cells that help your body get rid of bacteria like those that cause ear infections. What do B cells do?

1

Disease 36



Ear Infections

Ear infections can be quite painful.

True or False: All ear infections are caused by bacteria.

1

Disease Cards - Cut Along the Dotted Lines
You Make Me Sick!

Disease 37

Food Poisoning

E. coli bacteria are one type of germ that can cause food poisoning.

True or False: There is a vaccine for food poisoning.

4

Disease 38

Food Poisoning

Name 2 symptoms of food poisoning.

4

Disease 39

Food Poisoning

Food poisoning is often caused by eating undercooked or raw food. What is one way to prevent food poisoning?

4

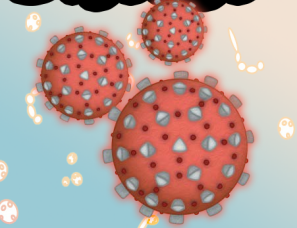
Disease 40

Food Poisoning

Noroviruses cause over 50% of food poisoning cases. Would antibiotics be effective in treating a norovirus infection? Why or why not?

4

Disease 41

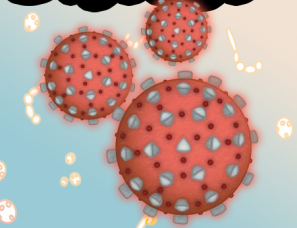


Covid-19

COVID-19 is higly contagious. Is COVID-19 caused by bacteria or a virus?

4

Disease 42

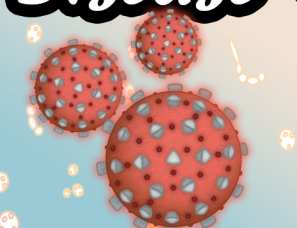


Covid-19

COVID-19 can have a variety of symptoms. Name one symptom of COVID-19 that affects the respiratory system.

4

Disease 43

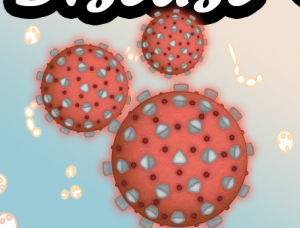


Covid-19

What does the "19" in COVID-19 stand for?

4

Disease 44

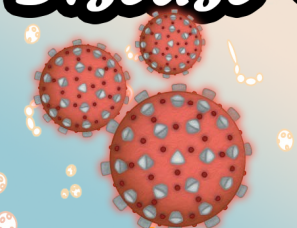


Covid-19

True or False: COVID-19 can **only** be spread from person-to-person.

5

Disease 45



Covid-19

COVID-19 is spread through droplets in the air.

True or False: Wearing a face mask can help to stop the spread of COVID-19 to others.

5

Disease Cards - Cut Along the Dotted Lines
You Make Me Sick!

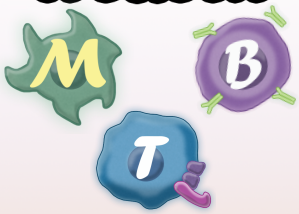
Health 1

Germs

Germs are small organisms or agents that make us sick. The 2 most common types of germs are bacteria and viruses.

5

Health 2

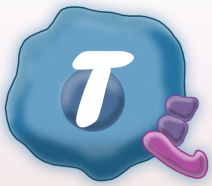


Immune System

The immune system is made up of many different types of cells and tissues that all work together to keep you healthy.

5

Health 3

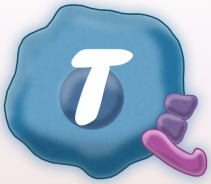


T Cells

T cells are the organizers of the immune system. They can activate other immune cells like B cells and macrophages.

5

Health 4

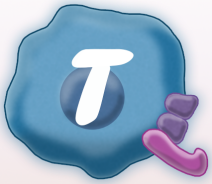


T Cells

T cells patrol the body, checking on each cell to see if it is healthy. If they find an unhealthy cell, they kill it.

5

Health 5



T Cells

Each T cell can only recognize one specific type of germ.

5

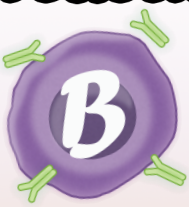
Health 6

B Cells

T cells activate B cells to make antibodies to specific diseases.

5

Health 7

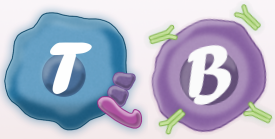


B Cells

B cells make antibodies. Each B cell and its antibodies can only recognize one specific germ.

5

Health 8



T and B Cells

Your body produces millions of B cells, so it can defend itself against the many different types of germs you might encounter.

5

Health 9

Macrophages

Macrophages are immune cells that engulf and destroy germs which have been tagged with antibodies.

5

Health Cards - Cut Along the Dotted Lines
You Make Me Sick!

Health 10

Antibodies

Antibodies latch on to the surface of germs so that macrophages know to destroy them. They can also block viruses from being able to enter a cell.

5

Health 11

Antibodies

Antibodies are specific to only one germ each. They can only attach themselves to the germ they are specifc to.

5

Health 12

Neutrophils

Neutrophils surround and digest things they think are harmful. They die shortly after. Dead neutrophils are what make up pus.

5

Health 13

Swallowing cells

Macrophages and neutrophils are usually the first immune cells to arrive at the site of infection.

5

Health 14

Swallowing cells

Marcophages and neutrophils are not specific. They can surround and digest almost any type of germ.

5

Health 15

Swallowing cells

Two types of immune cells can surround and digest germs: neutrophils and macrophages.

5

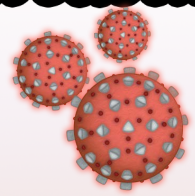
Health 16

Germs

Limiting your contact with others can help slow the spread of contagious diseases.

5

Health 17



Covid-19

Wearing a cloth mask or face covering can prevent you from spreading COVID-19 to others.

5

Health 18

Germs

Frequent hand washing and avoiding touching your face can lower your chances of spreading germs.

5

Health Cards - Cut Along the Dotted Lines
You Make Me Sick!

Antibiotic 19

Antibiotics kill the bacteria that cause infections like strep throat, pink eye, food poisoning, and ear infections.

Defends against any bacterial infection.

Antibiotic 20

Antibiotics are effective against bacterial infections only. Two common antibiotics are Amoxicillin and Ciprofloxacin.

Defends against any bacterial infection.

Antibiotic 21

Taking antibiotics when you don't have an infection can lead to antibiotic resistance. This means that over time, the antibiotic becomes less effective at fighting bacteria.

Defends against any bacterial infection.

Antibiotic 22

Antibiotics kill the bacteria that cause infections like strep throat, pink eye, food poisoning, and ear infections.

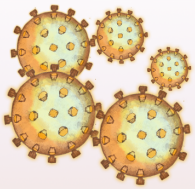
Defends against any bacterial infection.

Antibiotic 23

Washing your hands with soap or using hand sanitizer helps to kill germs on your skin, lowering your risk of infection.

Defends against any bacterial infection.

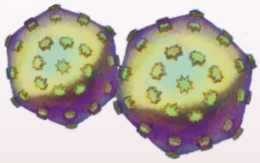
Vaccine 24



The flu vaccine helps your immune system learn what the flu virus looks like, so you don't get sick twice!

Defends against getting the flu.

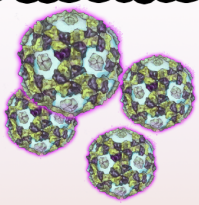
Vaccine 25



A vaccine helps your body to make antibodies to a specific germ. If you encounter it later on, your body is ready to fight off the infection.

Defends against chickenpox.

Vaccine 26



After getting a vaccine, special memory B cells remain in the body which can identify if you come in contact with that germ in the future.

Defends against polio.

Vaccine 27

Not all cells learn from vaccines. Macrophages can't remember what each germ looks like so they rely on other signals to find the germs that need to be destroyed.

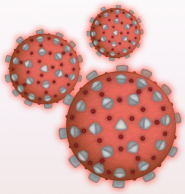
Defends against measles.

Vaccine 28

The tetanus vaccine protects you from the toxin released by the bacteria that cause tetanus.

Defends against tetanus.

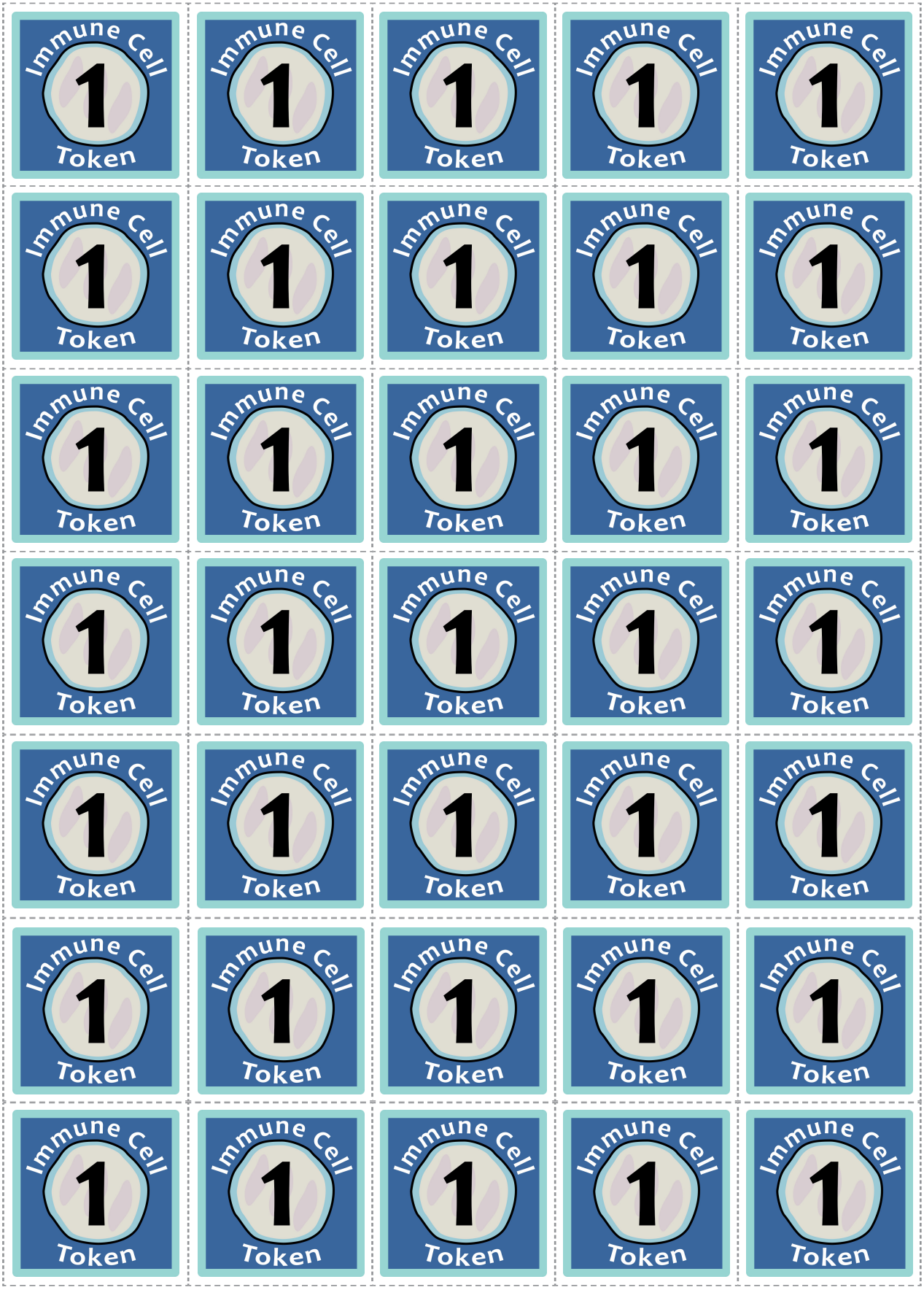
Vaccine 29



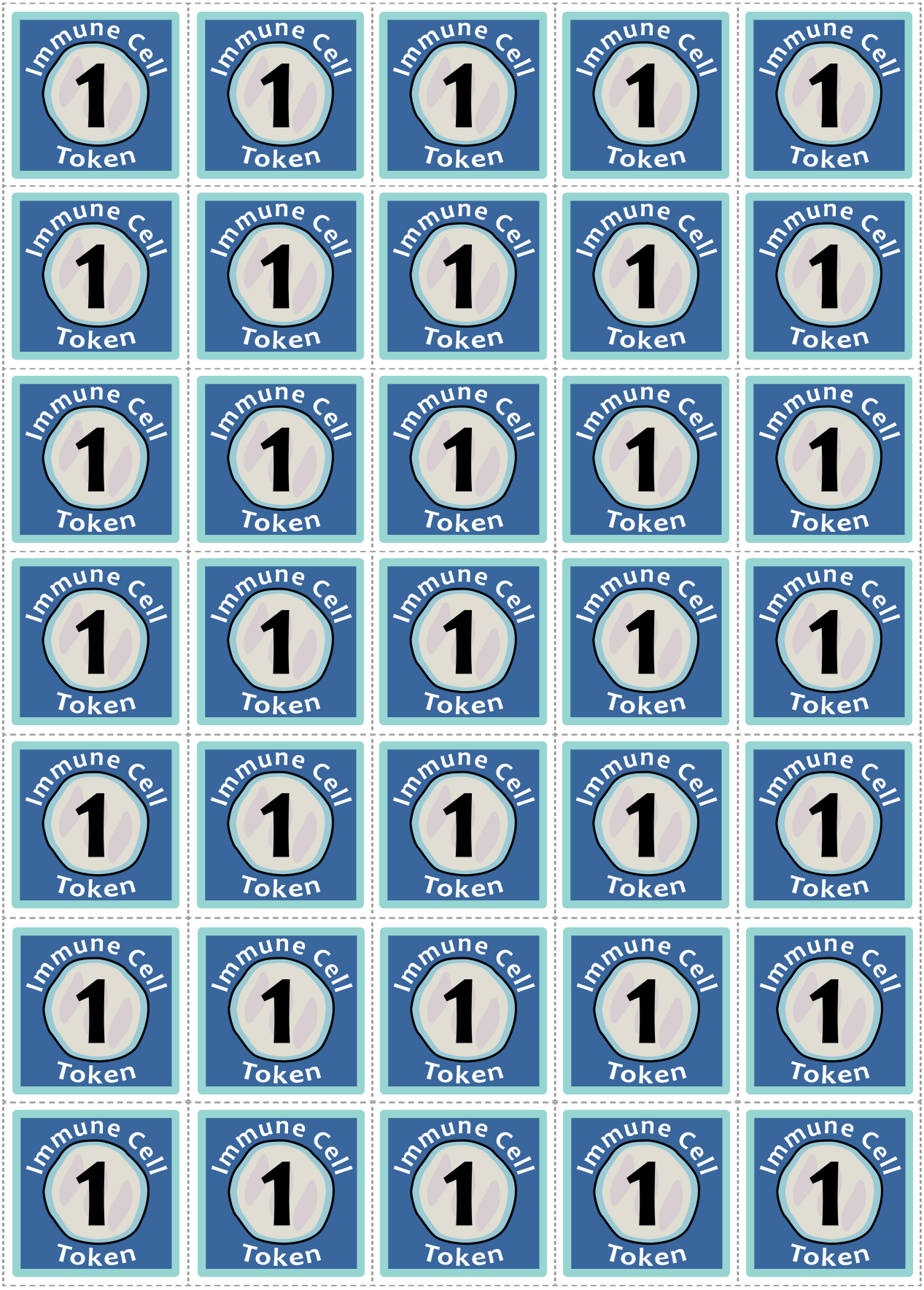
The COVID-19 vaccines teach the body to recognize a specific protein found on the surface of the virus. By recognizing this protein, they prevent the virus from infecting cells in the body.

Defends against COVID-19.

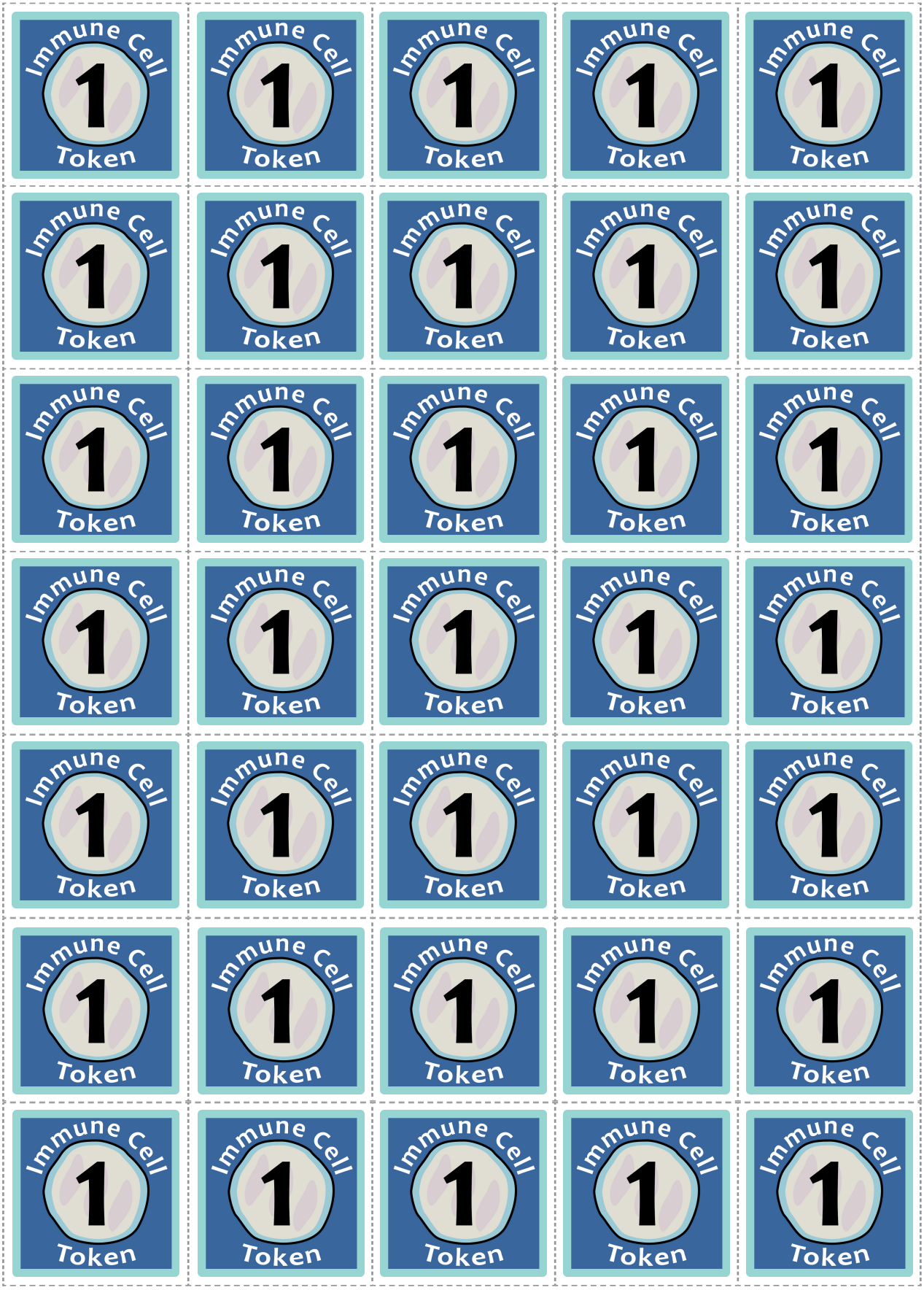
Vaccine Cards - Cut Along the Dotted Lines
You Make Me Sick!



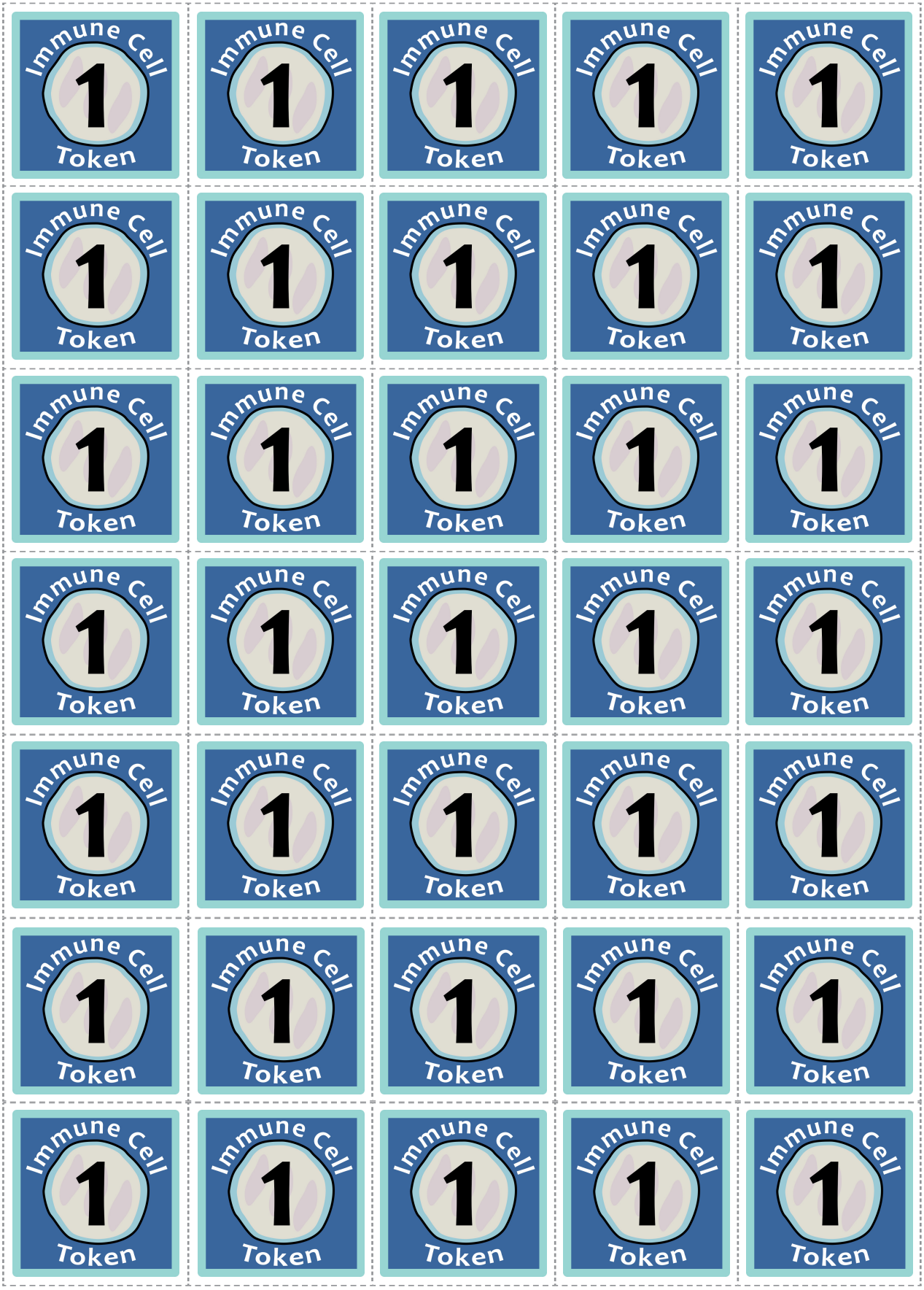
Immune Cell Tokens - Cut Along the Dotted Lines
You Make Me Sick!



Immune Cell Tokens - Cut Along the Dotted Lines
You Make Me Sick!



Immune Cell Tokens - Cut Along the Dotted Lines
You Make Me Sick!



Immune Cell Tokens - Cut Along the Dotted Lines
You Make Me Sick!

Grades	Prep	Activity
5 - 9	20 min	1 hour

You Make Me Sick
Teacher Guide

You Make Me Sick is a board game designed to teach students about the immune system and infectious disease. The game can serve as a review activity or supplement to a larger unit on Immunology. This activity does not involve any direct instruction by the teacher. Groups of students will work together to assemble the board and cards used in the game. After assembled, students will play the game. An optional reflection activity is provided as well. The accompanying PDF (You Make Me Sick Game) contains a game board, cards, and tokens which are used in gameplay. A full list of needed materials can be found below.

Provided for you:

- Board game sheets
- 1 Answer sheet
- 45 Disease Cards
- 28 Health Cards
- 140 Immune Cell Tokens
- 1 Rules sheet

You will need to provide:

- 4 small items such as coins or buttons to sever as player pieces
- 1 six-sided die

The Partnership In Education

NIH National Institute of General Medical Sciences

SEPA SCIENCE EDUCATION PARTNERSHIP AWARD
Supported by the National Institutes of Health

Teacher Preparation

Students should works in groups of three to four, for optimal gameplay.

1. Based on the number of students in your class, print out a copy of the You Make Me Sick Game. PDF for each group. If using the reflection activity, print a copy for each student in your class.
2. Gather enough small items like buttons, coins, etc. to serve as player pieces. You will need one player piece for each student.
3. Gather dice for each student group. Each student group will need 1, 6-sided die. If dice are not available, allowing each group to use a free number generator like the one found here, is an alternative.

Activity

1. After separating into groups, provide each group with a printed copy of the You Make Me Sick Game. This document contains everything the students will need to set-up and play the game, including instructions and rule sheet.
2. (Optional) If desired, you may review the key terms used in the game from the list on the final page of the *You Make Me Sick* Game PDF with your students. Alternatively, the review of the terms is an explicit step mentioned in the instructions, which students are expected to review in their groups.
3. Allow students time to construct the game board, set up the game, and play the game. A four player game takes about 1 hour to complete. If necessary, you can break up the activity into a set-up day, and a play day, to minimize time constraints.
4. After the conclusion of gameplay, you may assign students the reflection activity, found on the following page.

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You Make Me Sick Reflection

Name_____ Date_____

You recently played a game called, *You Make Me Sick*, about the immune system and infectious diseases. Answer the questions below and think back on your personal experiences while playing the game.

1. Who did you play the game with, who were your group members?

_____

2. Did anyone in your group have to go back to the hospital? Yes No
If yes, describe what happened

_____
_____
_____
_____

3. Did anyone in your group get to "infect" another player during a You Make Me Sick battle?

Yes No

If yes, describe what happened

_____
_____
_____
_____

4. What part of the game did you find the most fun and why?

_____
_____
_____

5. What part of the game did you find the least fun and why?

_____
_____
_____

6. Tell me one fact that you learned from playing *You Make Me Sick*.

_____
_____
_____