Immunity vs Infection By Evie Murrihy and Vasiliki Mears

For our science talent search project, we came up with the idea of constructing a game called Immunity vs Infection. The purpose of our game is to showcase the impact of DNA, immunity, and infection. Whilst also testing our knowledge on Australian facts and COVID-19 along the way, we get to dig deep into our facts and educate ourselves on Aussie knowledge and keep informed on how to protect ourselves against a virus while playing a fun science game. We get to look at populations and real-life events as we navigate fun challenges to brighten our STEM brains. Immunity vs Infection is a fun educational game that's great for all ages; however, our game is best suited for ages 10 and over because there are some facts that those under 10 might not know as well as a strong science dynamic that may be complex for anyone under 10 might struggle to understand. The game can be short to long depending on your luck. The game isn't just a luck game but also a skill game and you have to strategize.

Immunity vs Infection Step by Step-by-Step Instructions

- **1.** Start by sorting game cards and board into order by putting all the DNA point cards, challenge cards. Population cards and immunity cards into separate piles, and place the games shop and Australia game board sheet on the table. You start with 28 million in population.
- 2. Get a timer or stopwatch going so you can keep track of when players get cards.
- 3. Every 30 seconds you get 5 DNA points (a 5 DNA point card) to help you with the game and every 1 minute you get to pick up a challenge card that can range from difficulties easy, medium, hard and extremely difficult on the challenge card a question about Australia will be asked and if you get the question right you will gain a reward such as an additional 50 DNA points or 1 million added to your total population however if you answer the question incorrectly you will suffer a consequence such as losing all of your DNA points!
- 4. You repeat this process as the game goes on however your team/partner and you must decide along the way if you choose to spend your DNA points on special prizes and packs from the game shop to help conquer the virus the best prize you can get is if you make it to 500 DNA points and by the survivor pack which defeats the pandemic and is an automatic win!
- 5. After three minutes of game time, you may pick up an immunity card, which can have great rewards and protect you from potential consequences of challenge cards.
- 6. You continue doing this until the game concludes. There are four possible endings, which are 1) You continue playing until the cards run out, 2) You purchase a survivor pack from the gift store and beat the game, and 3) You draw a lucky immunity card out of the deck that finishes the game by beating the virus. These are the ways the game can play out!

Immunity vs Infection can be played in partners, teams, or even solo!

Discussion

Immunity vs Infection is designed to explore the profound impact that viruses have on the human body and the significant toll a pandemic can impose on the population at large. By examining real-life events such as the coronavirus outbreak, the game delves into essential aspects of Biology, specifically focusing on the intricate roles of DNA and the immune system. The gameplay revolves around the ongoing battle between germs and the human body, illustrating how these pathogens interact with our biological defenses. This connection to Biology is crucial as it highlights how DNA and various cells work together to form these protective mechanisms. Additionally, the game encompasses a broader range of scientific concepts, making it not only educational but also engaging for players. Through this interactive experience, players can gain a better understanding of the complex dynamics between germs and our immune responses, reinforcing the importance of these scientific principles in a fun and accessible manner that makes learning cool and interactive.

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