

Name: _____

Lab Partners: _____

Unknown #: _____

Zombie Plague

Catastrophe! The year is 2089 and a terrible zombie infection has swept across the planet. Your group is safely protected inside a bunker where you have access to food, water and basic scientific tools. Last night, on a routine patrol outside your bunker, your group was ambushed by a pack of zombies and someone was infected by the zombie virus. However, no one is willing to admit to the injury. The group is able to obtain a sample of blood from the infected person based on the equipment you used yesterday. Your task is to identify the infected member of your group, based on correct ABO+/- blood typing, before it is too late...

Objective: To determine the ABO+/- blood type of the four unknown blood samples and to identify the zombie virus carrier

Materials:

At each station:

1 unknown (simulated) blood sample
4 (simulated) blood samples of potential carriers
Toothpicks

For each group:

1 well slide
Anti-A serum, Anti-B serum, Rh serum
Safety goggles

Procedure:

1. Take special care NOT to contaminate any of the samples. This will lead to invalid results.
2. Before starting, thoroughly shake the (simulated) blood vile.
3. Place 2 drops of the suspect's blood in each of the A, B and Rh wells of the slide.
4. Add 2 drops of anti-A in the A well of the slide.
5. Add 2 drops of anti-B in the B well of the slide.
6. Add 2 drops of Rh serum in the Rh well of the slide.

7. Obtain two toothpicks per slide and break each toothpick in half. Stir each well with a separate CLEAN toothpick for 30 seconds. To avoid splattering, do not press too hard on the tray.
8. Observe the tray and record the results in the observation table. To confirm the results, try placing the tray on a white background.
9. Wash the well tray and dispose of toothpicks
10. Repeat steps 2-9 for the other 4 samples (3 other persons and the infected sample)

Observations:

Table 1- Reactions and Blood Type (Put a checkmark ✓ for a positive reaction and an ✗ for no reaction for each of the serums)

	Anti – A Serum	Anti – B Serum	Anti – Rh Serum	Blood Type
Person #1 – Jyn Erso				
Person #2 – Cassian Andor				
Person #3 – Chirrut Imwe				
Person #4 – Bodhi Rook				
Infected Person # ——				

Questions:

1. Based on your result table, who is infected by the zombie virus? Why?
2. In terms of RBC (red blood cells) what blood type is the “universal donor”? Why? Which character is a universal donor?
3. In terms of RBC what blood type is the “universal **recipient**”? Why? Which character is the universal recipient?
4. What could your blood type be if antigen A was present in your RBC? (give all possible answers)
5. Explain if Bodhi Rook (#4) can have a child who is O+
6. Could Chirrut (#3) donate blood to Cassian (#2)?