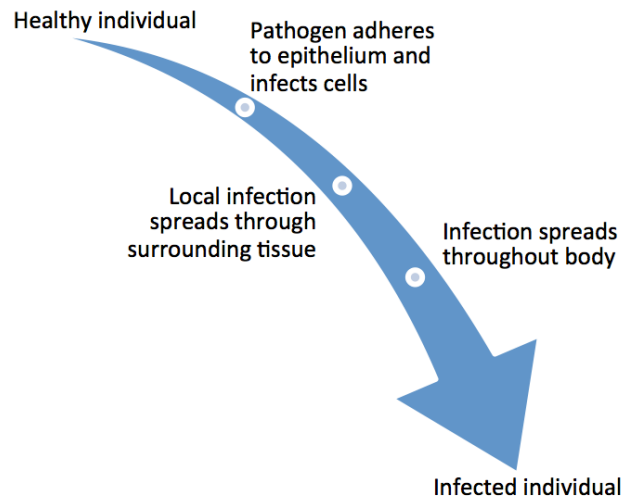


## Unit 2: Lesson 1 – Development of Disease and Infection

### Activity 2: The Infection Process

The steps of the infection process are shown below:



Consider the ways that pathogens adapt, enabling them to continue causing infections.

Complete the following:

1. On the above diagram of an infection arc, indicate where the pathogen may overcome the immune system response. Use the letters below to indicate each on the diagram. You may use a letter more than once. Explain the placement of each letter.
  - a. Antigenic novelty
  - b. Antigenic variation
  - c. Persistence
  - d. Resistance
2. What happens to the pathogen if it cannot reproduce, and what are the consequences?

3. What process enables the pathogen to overcome the immune system?
4. a. Using resources suggested by your teacher, research one of the pathogens on the table below and identify how it has evolved to circumvent the immune system. Include the name for the mechanism used by the pathogen from question 1.
4. b. If time allows, share your findings with the class. Complete the table with information provided during the class presentations.

a. <i>Streptococcus pneumoniae</i>	
b. African trypanosomes (sleeping sickness)	
c. Herpes simplex virus	
d. Varicella zoster virus (chickenpox)	
e. Epstein-Barr virus	
f. Hepatitis B virus	
g. <i>Mycobacterium tuberculosis</i>	
h. <i>Listeria monocytogenes</i>	
i. Human immunodeficiency virus (HIV)	

5. Choose one of the pathogens from the table and create a resource to present to the class that describes the infection process and the host's immune response. You may use any appropriate media for your presentation. Briefly explain why you chose that particular medium.

Indicate medium used:

- Poster       Web page       Mobile app       Slide presentation  
 Video       Podcast       Brochure       Other \_\_\_\_\_

Why did you choose this medium?

6. What was one piece of new information you learned through this lesson's activities and materials? Why was that item of interest to you?