

Microbiology
Bacteria Wanted Poster Research Project

Name _____
Date/Hour _____

Students will research one bacterial pathogen/disease and produce a "Wanted Poster" and a PowerPoint presentation. Students will be assigned a pathogen/disease from the list below. They will then produce a wanted poster and PowerPoint presentation with the given parameters. Highlight or underline your assigned pathogen/disease below.

| Microbial Pathogen | Disease Caused | |
|-----------------------------------|----------------------------------|----|
| <i>Bacillus anthracis</i> | anthrax | 1 |
| <i>Bacillus cereus</i> | food poisoning | 2 |
| <i>Bordetella pertussis</i> | whooping cough | 3 |
| <i>Brucella melitensis</i> | brucellosis | 4 |
| <i>Burkholderia pseudomallei</i> | meliodosis | 5 |
| <i>Campylobacter jejuni</i> | bacterial diarrheal illness | 6 |
| <i>Clostridium botulinum</i> | botulism | 7 |
| <i>Clostridium perfringens</i> | gas gangrene | 8 |
| <i>Clostridium tetani</i> | tetanus | 9 |
| <i>Corynebacterium diphtheria</i> | diphtheria | 10 |
| <i>Escherichia coli O157: H7</i> | acute pyelonephritis | 11 |
| <i>Francisella tularensis</i> | tularemia or rabbit fever | 12 |
| <i>Haemophilus influenzae</i> | meningitis | 13 |
| <i>Mycobacterium leprae</i> | leprosy (Hansen's disease) | 14 |
| <i>Mycobacterium tuberculosis</i> | tuberculosis | 15 |
| <i>Neisseria gonorrhoeae</i> | gonorrhoea | 16 |
| <i>Neisseria meningitidis</i> | spinal meningitis | 17 |
| <i>Rickettsia rickettsii</i> | Rocky Mountain Spotted Fever | 18 |
| <i>Rickettsia prowazekii</i> | typhus | 19 |
| <i>Salmonella typhi</i> | typhoid fever | 20 |
| <i>Salmonella typhimurium</i> | food poisoning | 21 |
| <i>Shigella dysenteriae</i> | dysentery | 22 |
| <i>Staphylococcus aureus</i> | impetigo | 23 |
| <i>Staphylococcus epidermidis</i> | septicemia | 24 |
| <i>Streptococcus mutans</i> | cavities | 25 |
| <i>Streptococcus pneumoniae</i> | pneumonia | 26 |
| <i>Streptococcus (group A)</i> | scarlet fever or rheumatic fever | 27 |
| <i>Treponema pallidum</i> | syphilis | 28 |
| <i>Treponema pertenue</i> | yaws | 29 |
| <i>Vibrio cholerae</i> | cholera | 30 |
| <i>Yersinia pestis</i> | plague | 31 |

Project Description:

A. WANTED POSTER

1. Student will produce a "Wanted Poster" for one of the bacteria listed. Poster is to be on 8.5" x 11" paper. Include:
 - Mugshot (electron micrograph or microscopic picture/diagram)
 - Description including Gram stain reaction
 - Organism's Modus Operandi (MO in police jargon) or how the organism attacks and spreads
 - Most common victims upon which they prey
 - Hide out of the culprit or where it is most likely to be found
 - Most common injury done to victim
 - Is it considered armed and dangerous or rate the degree of damage caused
 - Number of victims
 - Most effective weapons against the microbe
 - Any other identifying characteristics (such as tattoos)
2. Students have one class period to research their disease. Any additional time needed for research or production of the poster is to be done on their own.
3. Students are graded by the above criteria plus neatness and creativity.
4. Due Date for "Wanted Poster": _____



B. POWERPOINT PRESENTATION

1. Students will prepare and present a PowerPoint presentation for the microorganisms they researched for their Bacteria "Wanted Poster" project. The presentation will consist of at least 10 slides, one for each of the criteria listed on the "Wanted Poster".
2. Students will have one class period to work on their PowerPoint. Any additional time needed for research or production of the PowerPoint is to be done on their own.
3. Students will present their PowerPoint to the class. Presentations must last at least 3 minutes and have the minimum of 10 slides listed above.
4. Your presentation should be accurate, interesting, and informative. Each slide must contain a visual and as few words as possible to make your "point".
5. You must not read from the PowerPoint slides or a paper, the slides should only contain "points" that you want your audience to read. It is a **PowerPoint**, not a **PowerParagraph**!
6. All content on each PowerPoint slide should be in large enough and clear enough font for audience members to read easily from the back of the classroom.
7. You should be familiar with all vocabulary and information that you use in your presentation and be able to answer questions from the audience and instructor about your presentation.
8. Students will be graded on the above criteria plus neatness and creativity. Audience critiques will also be taking into account.
9. Order in which students will present will be determined by a random drawing. Due date for PowerPoint: _____ for all students.
10. Participation points will be given for each day of presentations. If a student has an excused absence on the day of presentations, that student may make up participation points by completing the research sheet for each presentation done that day.

Microbiology
Bacteria Wanted Poster
Research

Name _____
Date _____
Hour _____

1. Name of Moneran _____
2. Description including Gram stain reaction _____

3. Organism's *Modus Operandi* (MO in police jargon) or how the organism attacks and spreads _____

4. Most common victims upon which they prey _____

5. Hide out of the culprit or where it is most likely to be found _____

6. Most common injury done to victim _____

7. Is it considered armed and dangerous or rate the degree of damage caused_ _____

8. Number of victims _____

9. Most effective weapons against the microbe _____

10. Any other identifying characteristics (such as tattoos) _____

