1. Do the following:

a. Explain what public health is.

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Explain how Escherichia coli (E. coli), tetanus, HIV/AIDS, malaria, salmonellosis, and Lyme disease are contracted.

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| Escherichia coli (E. coli): |  |
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| Tetanus: |  |
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| HIV/AIDS: |  |
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| Malaria: |  |
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| Salmonellosis: |  |
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| Lyme disease: |  |
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b. Choose any FOUR of the following diseases or conditions and explain how each one is contracted and possibly prevented: gonorrhea, West Nile virus, Zika, botulism, influenza, syphilis, hepatitis, emphysema, meningitis, herpes, lead poisoning.

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|  | Disease | How Contracted and Prevented: |
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c. For each disease or condition in requirement 1b,, explain

i. The type or form of the malady (viral, bacterial, environmental, toxin),

ii. Any possible vectors for transmission

iii. Ways to help prevent exposure or the spread of infection

iv. Available treatments.

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| Gonorrhea: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| West Nile virus: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Zika: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Botulism: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Influenza: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Syphilis: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Hepatitis: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Emphysema: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Meningitis: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Herpes: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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| Lead poisoning: | Type or form: |  |
| Possible vectors: |  | |
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| How to Prevent exposure or Spread: |  | |
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| Treatments: |  | |
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2. Do the following:

a. Explain the meaning of immunization.

b. Name EIGHT diseases against which a young child should be immunized, two diseases against which everyone should be reimmunized periodically, and one immunization everyone should receive annually.

Young child

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| 8. |  |

Everyone periodically

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| 1. |  |
| 2. |  |

Everyone annually

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| 1. |  |

c. Using the list of diseases and conditions in requirement 1b, discuss with your counselor which currently have no immunization available.

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3. Discuss the importance of safe drinking water in terms of the spread of disease.

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Then, demonstrate two ways for making water safe to drink that can be used while at camp. In your demonstration, explain how dishes and utensils should be washed, dried, and kept sanitary at home and in camp.

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4. Explain what a vector is

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5. With your parent's and counselor's approval, do ONE of the following:

⬜ a. Visit a municipal wastewater treatment facility OR a solid-waste management operation in your community.

Facility Visited:

i. Describe how the facility safely treats and disposes of sewage or solid waste.

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ii. Discuss your visit and what you learned with your counselor.

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iii. Describe how sewage and solid waste should be disposed of under wilderness camping conditions.

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⬜ b. Visit a food service facility, such as a restaurant or school cafeteria.

i. Observe food preparation, handling, and storage. Learn how the facility keeps food from becoming contaminated.

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ii. Find out what conditions allow micro-organisms to multiply in food, what can be done to help prevent them from growing and spreading, and how to kill them.

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iii. Discuss the importance of using a thermometer to check food temperatures.

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iv. Discuss your visit and what you learned with your counselor.

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6. Do the following:

a. Describe the health dangers from air, water, and noise pollution.

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| Air pollution: |  |
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| Water pollution: |  |
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| Noise pollution: |  |
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b. Describe health dangers from tobacco use, alcohol, and drug abuse.

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| Tobacco: |  |
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| Alcohol |  |
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| Drug abuse. |  |
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c. Describe the health dangers from abusing illegal and prescription drugs.

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7. With your parent's and counselor's approval, do ONE of the following:

⬜ a. Visit your city, county, or state public health agency

⬜ b. Familiarize yourself with your city, county, or state health agency’s website.

After completing either 7a or 7b, do the following:

i. Compare the four leading causes of mortality (death) in your community for any of the past five years with the four leading causes of disease in your community.

Mortality (death)

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Causes of disease:

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Explain how the public health agency you visited is trying to reduce the mortality and morbidity rates of these leading causes of illness and death.

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ii.. Explain the role of your health agency as it relates to the outbreak of diseases.

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iii. Discuss the kinds of public assistance the agency is able to provide in case of disasters such as floods, storms, tornadoes, earthquakes, and other acts of destruction. Your discussion can include the cleanup necessary after the disaster.

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8. Pick a profession in the public health sector that interests you.

Find out the education, training, and experience required to work in this profession.

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| Education: |  |
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| Training: |  |
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| Experience: |  |
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Discuss what you learn with your counselor.

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**When working on merit badges, Scouts and Scouters should be aware of some vital information in the current edition of the *Guide to Advancement* (BSA publication 33088).Important excerpts from that publication can be downloaded from** [**http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf**](http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf)**.**

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