Human Health & Climate Change Trivia Game

Incorporated Minnesota Standard:
• 8.3.4.1.2

Description of Activity:
This group trivia game emphasizes the human health effects of climate change. The teacher divides the class into two or more teams. After the teacher asks a trivia question (provided below), the groups must discuss amongst themselves, agree upon an answer, and then send a representative to the board to write down the answer as quickly as possible. The team to write down the correct answer first receives one point.

Goals of This Activity:
• Reinforce the concept that climate change affects both the planet as well as human health
• Promote listening skills and group discussion & collaborations skills
• Promote exercise & physical movement via ‘racing’ to the board

Appropriate Grade Levels:
6-8

Time Needed:
30 – 45 minutes

Materials Needed:
• Chalkboard, Dry-erase board, or Smart Board with appropriate writing utensils
• Human Health & Climate Change Trivia Questions

Number of Participants Needed:
2 teams with at least 2 students

Directions:
Divide the class into two or more teams, each with at least two students. Ask each team to designate a team representative for that round. Choose a question from below and read it to the class. After the question is read, the groups discuss amongst themselves what the answer to the question is. Once an answer is agreed upon, each team sends their representative up to the board to write down their answer as quickly as possible. The first team to write down the correct answer receives one point. The team with the most points at the end of the game wins. Team representatives can rotate on a question-to-question basis.
Adaptations:
- Trivia questions are also available as a slide set on the Minnesota Department of Health’s website.
- Teachers may choose to use mini white boards or chalk boards for each team.

**Human Health & Climate Change Trivia Questions:**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>1. True or False: Climate and weather are the same thing. <em>(Adaptation: explain why the statement is True or False.)</em></td>
<td>1. False. Weather is the current conditions of the atmosphere at a particular time and place. Climate is the pattern of weather over time.</td>
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<tr>
<td>2. Climate change can lead to an increase in infectious disease. Infectious diseases are caused by:</td>
<td>2. Both. For example, Lyme Disease is caused by a bacteria and West Nile is caused by a virus. Both are considered to be infectious diseases.</td>
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<td>a. Bacteria</td>
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<td>b. Viruses</td>
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<td>c. Both</td>
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<td>3. What can trigger an asthma attack?</td>
<td>3. D. All of the above. Asthma symptoms can be the worst during the summer when it’s especially hot and humid.</td>
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<td>a. Heavy exercise</td>
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<td>b. Air pollution</td>
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<td>c. Hot and humid weather conditions</td>
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<tr>
<td>d. All of the above</td>
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<td>4. What is a substance that causes allergies called?</td>
<td>4. Allergen. Some examples of allergens include dust, mold, and pollen.</td>
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<td>5. Do droughts affect human health? Why or why not?</td>
<td>5. Yes. Droughts can cause a variety of health problems in humans including heat stress and asthma attacks.</td>
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<td>6. “I am a type of greenhouse gas high up in the atmosphere that protects you from UV radiation from the sun. However, close to Earth, I am a pollutant and can cause many health problems. What greenhouse gas am I?”</td>
<td>6. B. Ozone. Breathing in ozone can cause chest pain, coughing, and a sore throat. It can also make asthma worse.</td>
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<tr>
<td>a. Carbon Dioxide</td>
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<td>b. Ozone</td>
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<td>c. Methane</td>
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<td>d. Water Vapor</td>
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<td>7. Sunscreen protects us from what type of radiation from the sun?</td>
<td>7. Ultraviolet Radiation or UV Radiation. Some UV radiation is blocked by ozone high in the atmosphere. However, some UV radiation sneaks through and can damage our skin by giving us sunburn. We wear sunscreen to protect our skin from getting sunburn from UV radiation.</td>
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<tr>
<td>Question</td>
<td>Answer</td>
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<td>8. List three things you can do during a heat wave to keep yourself cool.</td>
<td>8. Correct answers are up to the teacher’s discretion. Examples include: Standing in the shade while outside. Drinking plenty of water. Wearing light-colored clothing. Wearing a hat with a wide brim. Staying inside where there is air conditioning. Using a personal fan and/or spray bottle while outside.</td>
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<tr>
<td>9. True or False. Young children and elderly are both vulnerable to extreme heat and high levels of air pollution. <em>(Adaptation: explain why the statement is True or False.)</em></td>
<td>9. <strong>True.</strong> Both young children and elderly should be especially careful when it is very hot out and in areas where there are high levels of air pollution.</td>
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<td>10. As a result of global warming, ticks are able to survive longer during the warmer seasons. That means that there is an increased chance of ticks to spread a disease to humans. Which infectious disease can ticks transmit to humans?</td>
<td>10. <strong>A. Lyme Disease.</strong> Individuals who spend a lot of time outdoors (especially in wooded areas) during the spring, summer, and fall are at risk of coming in contact with a tick that could transmit Lyme Disease to him or her through a tick bite.</td>
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</table>
| a. Lyme Disease  
| b. Food Poisoning  
| c. West Nile Virus  
| d. The Common Cold  | |
| 11. After a severe thunderstorm or tornado, which consequence do humans often have to deal with in regards to health? *(Choose all that apply.)* | 11. **A. C. & D.** Many of the health effects of an extreme weather event such as a severe thunderstorm or a tornado occur after the weather event itself. It is very important that individuals affected by an extreme weather event have access to clean drinking water, safe food, and adequate shelter. |
| a. Unsafe drinking water  
| b. Where the soccer team will practice the next day  
| c. Lack of safe food to eat  
<p>| d. Lack of shelter  | |
| 12. True or False. Climate change can cause several negative health affects in humans. <em>(Adaptation: explain why the statement is True or False.)</em> | 12. <strong>True!</strong> Climate change doesn’t just affect the environment. It also affects us! |</p>
<table>
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<tr>
<th><strong>Bonus!</strong> Put this sequence of events in the correct order: <em>(Write only the letters.)</em></th>
<th><strong>Answer</strong></th>
</tr>
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<tr>
<td>a. Minnesota has to import fresh fruits and vegetables from other states and countries.</td>
<td>F. C. D. A. E. G. B. As you can see, climate change can begin a cascade of events that can affect our health.</td>
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<td>b. Minnesotans are not as healthy because they can’t afford fresh fruits and vegetables.</td>
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<td>c. Farmers are not able to grow crops because there is not enough water.</td>
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<td>d. There is not enough fresh homegrown food for Minnesotans.</td>
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<td>e. The price of fresh food increases because it has to be shipped from far-away locations all the way to Minnesota.</td>
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<td>f. Climate change causes Minnesota to have several severe droughts during the summer months.</td>
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<td>g. The price of fresh food increases so much that people cannot afford fresh food.</td>
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**Group discussion question for after trivia game:** What are some other ways that climate change can affect human health?