



SAMPLE LESSON PLANS

Grade 9 – Healthy Environment

Unit 1

SOLs:

- 9.2.W Identify global and local health-related environmental issues, including ways to prevent and manage asthma and allergies.
- 9.3.0 Develop a long-term plan for self and/or family to positively impact the environment.

Title: Global Environment and Health

Objectives/ Goals: Students will be able to identify global and local health-related issues and to cooperatively develop plans to address them.

Materials:

- Flip charts, informational resources.

Procedure:

Global Environmental Health/Local Application

- Using information from the resources in the references, provide an overview of global environmental issues (e.g., presentation, video).
- In small groups have students read an article on global environmental health issues and have each group assign a reporter to report out at least three global environmental health issues.
- Go around the class and have students share local examples of environmental concerns including how they impact health. Write these down on a list visible to the class.
- Have each group identify five ways that they can act locally to address the local concerns on the list.
- Each group will write their list on a flip chart and assign a reporter to share the list with the class.
- Have class look at all of the flip charts and identify common strategies.

- As a homework assignment, each student should draft their own plan to implement these strategies over the next 6 months. The plan should identify:
 - the strategy (e.g., reducing waste).
 - a statement of how implementing the strategy will positively impact the environment (e.g., less landfill, more land for other uses).
 - a 6 month goal- what would success look like? (e.g, to cut trash by 50%)
 - monthly individual and family activities that would help them reach their goals (e.g., wrapping holiday presents in recycled paper, volunteering to collect and recycle trash at a local roadside, lake, nature walk, or park).
 - a 2 week plan of daily activities that will help them reach their goals (e.g., putting recyclables in a bin and taking them out for pickup, carrying a reusable bag for purchases).
- Have students keep a two week log of progress on the activities in their Plan.
- In 2 weeks, in small groups have students discuss their lessons learned (e.g., positive experiences, challenges and how they overcame them). As a group agree on the top 5 lessons learned and write them on a flip chart.
- As a class, look at all of the flipcharts and identify common themes of “lessons learned”.
- Encourage the students to continue to set and pursue achievable goals and positively impact the environment.
- The reference list below includes information to enhance student learning (e.g., readings, activities).

Allergies and Asthma

- A significant environmental issue is the development of asthma and allergies. Devise a scavenger hunt for groups of students to research various internet sites (e.g., Allergy and Asthma Foundation <http://fightthecauseofallergy.org> , CDC <https://www.cdc.gov/nceh/ehhe/>) and Kids Health for Teens to identify information on:
 - What are allergies and asthma?
 - How are these illnesses linked to environmental conditions?
 - What are ways to prevent asthma?
 - How do people with asthma manage their asthma?
- Have students put the information they have gained on posters and share with the class.

Assessment Ideas:

- Evaluate student participation in class discussion and activities; completion of scavenger hunt.
- Quality of completed plans and record logs.

References:

- Allergy and Asthma Foundation - <http://fightthecauseofallergy.org>
- CDC Environmental Hazards and Health Effects <https://www.cdc.gov/nceh/ehhe/>
- EPA Games and Quizzes <https://www.epa.gov/students/games-quizzes-and-more>

- EPA Learning and Teaching about the Environment: <https://www.epa.gov/students>
- Global Asthma Report <http://www.globalasthmareport.org/burden/causes.php>
- Global Asthma Network <http://www.globalasthmanetwork.org/patients/causes.php>
- HealthyPeople.Gov Environment <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health>
- NIEHS- Your Environment- Your Health: <http://www.niehs.nih.gov/health/scied/teachers/>
- OSU Hydroville Curriculum Project- Problem-based environmental health curricula, resources, and events: <http://blogs.oregonstate.edu/hydroville/>
- WHO Environmental Health http://www.who.int/topics/environmental_health/en/

Articles and Videos

- “Environmental Issues Involving Global Warming” -8th Grader TED Talk <https://www.youtube.com/watch?v=PRJvuA5bW9s>
- National Geographic – “Allergy Misery” <http://environment.nationalgeographic.com/environment/global-warming/allergies-misery/>
- Scientific American: “The Link Between the Environment and Health” <https://www.scientificamerican.com/article/environment-and-our-health/>
- “This is Environmental Health” <https://www.youtube.com/watch?v=zmnEtCGDXMg>
- “Ozone, Air Quality, and Asthma” <http://kidshealth.org/en/teens/ozone-asthma.html?ref=search#>