Grade 9 Sample Lesson Plan:
Unit 1 – Global Environment and Health

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

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](http://fightthecauseofallergy.org), CDC [https://www.cdc.gov/nceh/ehhe/](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 Idea**

- 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](http://fightthecauseofallergy.org)
- CDC Environmental Hazards and Health Effects [https://www.cdc.gov/nceh/ehhe/](https://www.cdc.gov/nceh/ehhe/)
- EPA Games and Quizzes [https://www.epa.gov/students/games-quizzes-and-more](https://www.epa.gov/students/games-quizzes-and-more)
• EPA Learning and Teaching about the Environment: https://www.epa.gov/students
• 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”
• Scientific American: “The Link Between the Environment and 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#