



## Grade 7 Sample Lesson Plan: Unit 1 – People and the Environment

### SOLs

- 7.1.W Describe human activities that contribute to air, water, soil, and noise pollution.
- 7.2.T Describe how a healthy environment is essential to personal and community health.
- 7.2.U Evaluate the relationship of social and environmental factors to individual and community health.
- 7.3.U Demonstrate ways to conserve and promote the conservation of natural resources.

### Objectives/Goals

- Students will understand the link between human activity, the environment, and health

### Materials

- Video or PPT presentation
- Display board.
- Bowl and Sponges

### Procedure

#### *Step 1*

- Discussion and Activity – Human Activity and the Environment
  - Introduce students to the role of human activity in polluting the environment , Resources identified at the end of this unit may be helpful.
  - Reinforce the documented human health impacts of climate change due to human activity (e.g., CDC Climate Effects and Health <https://www.cdc.gov/climateandhealth/effects/default.htm#factsheets>)).
  - Draw 2 columns on the display board;
    - Ask students to share ways they have seen people contributing to air, water, soil and noise pollution; list these responses in the first column.

- Then ask students how they think these activities can be adjusted to reduce pollution – list these responses in the second column.
- Conclude by saying that, by modifying our activities, we each have the power to reduce damage to the environment.
- To demonstrate the value of water conservation, set up a bowl of water and several pieces of sponge, and do the following:
  - Ask student volunteers to come up and identify an activity that they engage in each day that uses water; at the same time they should dip the sponge in the water and hold it. As each student dips the sponge, the water level will lower.
  - Tell the class that the challenge with using natural resources is that eventually they get used up.
  - Ask each student with a sponge to identify one way that they can modify their activity to save water; as each student names this activity, have them squeeze the sponge back into the water. As each student identifies a water saving measure and squeezes the water back into the bowl, the water level will increase.
  - Conclude by saying that this reflects that even little contributions can improve the natural environment.

## 2. Activity: Appreciating Nature

- Have students engage in an active, outdoor scavenger hunt to appreciate nature and natural resources (e.g. example included below).
- Start an outdoor garden where students can grow edible ingredients as well as flowers and plants for beauty.


<http://www.doc.govt.nz/Documents/conservation-week/treasure-hunt-chart.pdf>

## Treasure hunt

Head out into your backyard or a local park (with a parent or guardian) and see if you can find all the items in the circles below.

When you find a match write it down or draw a picture of it in the empty box next to it.  
See if you can find a new item for each box!

Don't forget to check high and low, who knows what you will find!



<div style="background-color: #00AEEF; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something old</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #E67E22; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something bent</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #F1C40F; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something rough</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #4A5568; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something pretty</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>
<div style="background-color: #F1C40F; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something smooth</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #F1C40F; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something fluffy</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #E67E22; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something green</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #00AEEF; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something you've never seen before</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>
<div style="background-color: #E67E22; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something orange</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #4A5568; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something rotting</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #00AEEF; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something straight</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #F1C40F; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something slimy</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>
<div style="background-color: #F1C40F; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something dark</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #00AEEF; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something small</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #F1C40F; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something you can't touch</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #E67E22; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something new</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>
<div style="background-color: #4A5568; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something that smells nice</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #E67E22; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something bright</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	<div style="background-color: #00AEEF; color: white; border-radius: 50%; padding: 5px; display: inline-block;">Something big</div> <input style="width: 60px; height: 40px; margin-left: 10px;" type="text"/>	

Department of Conservation  
Te Papa Atawhai

# Winter Scavenger Hunt

 Squirrel	 Pine Cone	 Flying Bird	 Feather
 Maple Leaf	 Bird Nest	 Tracks of a mammalian omnivore	 Twig
 3 Pieces of Litter	 Cat (no claws) Cat Track	 A Berry	 Cardinal
 Pine Needle	 Chickadee	 Oak Leaf	 Dog (with claws)

**Example of a winter scavenger hunt checklist.**

### 3. Discussion and Activity: Healthy and Unhealthy Environments

- Ask students – What aspects of your environment at home, school, in your community are healthy? What aspects of your environment are unhealthy?

- Have students brainstorm healthy and unhealthy aspects of their daily environment and discuss how getting involved in promoting healthy environments can improve their own health and the health of their communities (e.g., reducing tobacco smoke, reducing smog from cars/factories, promoting walkable environments and opportunity for physical activity, increasing access to fresh fruits and vegetables).
- Visibly document the discussion.
- Assign students to write a one page reflection about the benefits of a healthy environment to personal and community health.

### 3. Activity: Conservation in Action

- Engage students in a group or community activity to promote conservation (i.e., wildlife conservation, energy conservation, water conservation, land conservation) such as a recycling activity or a local park or school grounds clean up day.
- Ask students identify one or two items that would normally be thrown away at school or at home to reuse as a classroom or home decoration. Prompt students with ideas (e.g., creating bird feeders out of milk cartons, book holders out of cereal boxes, jewelry storage out of gift boxes).
- Create rainwater containers from milk cartons or cans and host a brainstorming session during which students think about how they can use the rainwater in their classroom and around the school to save water.
- Assign students on a given day to try to conserve as much energy as possible while completing all necessary tasks (e.g., turning lights off, not watching television, limiting use of non-human powered devices such as the dishwasher or the car). Share their experience with the class.

## Assessment Idea

- Evaluate student participation in discussion and activities.

## References

- 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>
- KidsHealth “Ozone, Air Quality, and Asthma”  
<http://kidshealth.org/en/teens/ozone-asthma.html?ref=search#>
- NEA Environmental Activities and Resources  
<http://www.nea.org/tools/EnvironmentalEducationActivitiesAndResources.html>
- NIEHS- Your Environment- Your Health:  
<http://www.niehs.nih.gov/health/scied/teachers/>
- NIEHS- Kids Environment- Kids Health: <http://kids.niehs.nih.gov/topics/reduce/>
- Conservation Activities <http://www.doc.govt.nz/get-involved/conservation-activities/>
- “10 Fun Conservation Activities for Parents, Teachers, and Kids”

- Human Impact on the Physical Environment  
<http://www.pbslearningmedia.org/resource/181216317-human-impact/birds-flying-over-landfill-human-impact-on-the-physical-environment-geography/>
- Human Impacts on the Environment  
<https://www.youtube.com/watch?v=YXT-RTjTjew>
- Pollution (Land, Air, Water) [https://www.youtube.com/watch?v=vP3pbh - pu8](https://www.youtube.com/watch?v=vP3pbh-pu8)