

**TEACHER'S GUIDE - TODAY'S ENVIRONMENTAL FABLES**

Fable	Characters	Action	Stop and think	Read - ability
#1 Global Pro-Environment Conference	Teddy, Polar Bear, Coyote, Reindeer, Gorilla, Mole, Ostrich, Woodpecker, Eagle, Grasshopper, Beetle, Butterfly, Whale, Sunfish, Starfish, Tilapia, Slug, Worm	- Our Solutions: *Act to stop global warming *Act to reduce waste *Act to reduce water pollution *Act to stop air pollution *Act to fight climate change	What action can I take? How can I model best practices for others? What can I do to highlight problems and solutions?	
#2 Land Pollution Solutions	Teddy, Earthworm, Snail, Toad, Turtle, Lizard, Salamander, Cicada, Snake, Crocodile	<b>Problem: land pollution</b> <b>4R solution:</b> *Reduce waste. *Reuse products. *Recycle plastics, paper, glass, metal. *Restore natural cycles by composting plant residue.	What can I reuse or recycle instead of throwing in the trash? Am I careful not to litter?	5 <sup>th</sup> gr.
#3 Air Pollution Prevention	Teddy, Fly, Moth, Bumblebee, Locust, Robin, Duck, Pelican, Hawk, Quail, Sea Gull	<b>Problem: air pollution</b> <b>5R solution:</b> * Reduce use of electricity *Reuse instead of buying new manufactured products. *Recycle instead of putting in trash. * Ride bike or walk instead of driving. *Regularly use eco-friendly products.	Which of my activities pollute the air? What can I do to prevent air pollution?	6 <sup>th</sup>
#4 Some Water Pollution Solutions	Teddy, Catfish, Bass, Minnow, Trout, Cod and also to Horseshoe Crab, Shark, Starfish, Sturgeon, Salmon	<b>Problem: water pollution</b> <b>6R solution:</b> *Reduce water-use indoors *Reject chemical products in favor of natural products outdoors. *Release cooking oil or grease into trash. *Recycle motor oil. *Refuse to litter. Pick up litter. *Restore pure water.	How do my usual activities add to water pollution? What can I do to stop water pollution?	5 <sup>th</sup>

#5 Global Warming Conclusions	Teddy, Crow, Raven	<b>Problem: global warming</b> <b>5R Solution:</b> *Reduce use of electricity, energy. *Reuse packaging. *Recycle paper, plastic, glass, metal. *Restore natural cycles by composting plant residue. *Regularly use eco-friendly products.	What can I do to stop global warming? What do I reduce, reuse and recycle? What do I compost? What changes do I make in using energy?	8 <sup>th</sup>
#6 Climate Change Affects Everyone	Teddy, Sawyer Habitat Bear, Dolphin, Moose, Prairie Dog, Snapping Turtle	<b>Problem: Climate change</b> <b>7R solution:</b> *Reduce use of electricity, energy and water. *Regularly use eco-friendly products. *Recycle everything possible. *Reuse anything you can. *Ride or walk. *Readily volunteer for community environmental projects. *Restore tree loss by planting a tree.	What can I do to stop climate change? What habits can I change?	6 <sup>th</sup>

**Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects**

Reading Standards for Literacy in Science and Technical Subjects 6–12

RST Grades 6–8 students:

- 2. Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.
- 8. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

**Next Generation Science Standards**

5<sup>th</sup> grade. (5-ESS3-1)

C. Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth’s resources and environments. (5-ESS3-1)

Middle School. MS ESS3.C: Human Impacts on Earth Systems.

♣ Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth’s environments can have different impacts (negative and positive) for different living things.

(MS-ESS3-3)

♣ Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise.

(MSESS3-3),(MS-(ESS3-4) ESS3.D: Global Climate Change

♣ Human activities, such as the release of greenhouse gases from burning fossil fuels, are major factors in the current rise in Earth's mean surface temperature (global warming). Reducing the level of climate change and reducing human vulnerability to whatever climate changes do occur depend on the understanding of climate science, engineering capabilities, and other kinds of knowledge, such as understanding of human behavior and on applying that knowledge wisely in decisions and activities.

### **Science Standards of Learning (SOL)**

#### **Earth Resources**

3.8 The student will investigate and understand that natural events and humans influence ecosystems. Key ideas include

- a) human activity affects the quality of air, water, and habitats;
- b) water is limited and needs to be conserved;
- c) fire, flood, disease, and erosion affect ecosystems; and
- d) soil is a natural resource and should be conserved.

6.9 The student will investigate and understand that humans impact the environment and individuals can influence public policy decisions related to energy and the environment. Key ideas include

- a) natural resources are important to protect and maintain;
- b) renewable and nonrenewable resources can be managed;
- c) major health and safety issues are associated with air and water quality;
- d) major health and safety issues are related to different forms of energy;
- e) preventive measures can protect land-use and reduce environmental hazards; and
- f) there are cost/benefit tradeoffs in conservation policies.

## Lesson Plans for Today's Environmental Fables

### Vocabulary

verb	noun	Noun - person	Adjective/adverb
	environment =condition or influence that affects growth & development	environmentalist	environmental environmentally
	ecology = science, relation of living things to environment <b>eco-systems eco-friendly</b>	ecologist	ecological ecologically
	nature =all animals, plants, other things in the world not made by people, all events & processes not caused by people <b>natural resource</b> = air, land, water, plants, animals	naturalist native	natural/naturally unnatural
	habitat = place where plant/animal lives in nature habitation		
	human = person, people humanity Habitat for Humanity		
	globe = world, earth <b>global-warming</b>		global = world-wide
	climate= long-term pattern of weather in specific region <b>climate-change</b>		climatic
pollute = make impure, contaminate	<b>pollution</b>	polluter	polluted
contaminate = make unfit for use by adding something harmful	contamination		contaminated
consume = use up	consumption consumer	consumer = person who buys/uses goods & services	consumable
emit = give out	emission		
waste =use/spend carelessly/uselessly	waste = material thrown away		wasteful = use in careless/foolish manner
conserve =keep safe, save	conservation natural resource conservation		
prevent = keep from happening	prevention		preventable unpreventable
reduce = make smaller or less	reduction		reduced reducible
reuse = use again			reused reusable

recycle= reprocess in order to regain materials for human use	recycle	recycler	recycled recyclable
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Prefix + root word	Root word + suffix
<b>re</b> = again reuse = use again	<b>able</b> = can recyclable = can be recycled
<b>un</b> = not unnatural = not natural	<b>ist</b> = person who studies naturalist = person who studies nature
	<b>er</b> = person who consumer = person who consumes/uses

### Lesson plans for 6 environmental fables

1. Background knowledge. Introduce topic. What do you know about this topic? Why is this a problem? List facts students give.
2. Vocabulary. Introduce new vocabulary.
3. Reading. Read the fable aloud.
4. Comprehension. Discussion:
  - a. Who are the participants? Why were these animals invited to participate?
  - b. Define the problem.
  - c. What are the causes of the problem? Natural? Human-made? List.
  - d. What are some examples of the problem?
  - e. What are some solutions? What can we do? List.
  - f. Compare with background knowledge list.
5. Writing. Students make chart. Fill in information after reading and discussion.

#### Today's Environmental Fables

fable	problem	definition	causes	solutions

6. Application. In small groups: Make illustrations for the fable. Create a cartoon with speech bubble dialog. Make posters. Create a song or chant of solutions. Research one issue from other sources. Answer the 'Stop and Think!' questions in a personal journal.

### Environmental problems

#### Our Solutions:

- \*Act to stop global warming
- \*Act to reduce waste
- \*Act to reduce water pollution
- \*Act to stop air pollution
- \*Act to fight climate change

### Problem: land pollution

#### 4R solution:

- \*Reduce waste.
- \*Reuse products.
- \*Recycle plastics, paper, glass, metal.
- \*Restore natural cycles by composting plant residue.

### Problem: air pollution

#### 6R solution:

- \*Reduce use of electricity
- \*Reuse instead of buying new manufactured products.
- \*Recycle instead of putting in trash.
- \*Ride bike or walk instead of driving.
- \*Restore carbon dioxide-absorbing trees.
- \*Regularly use eco-friendly products.

### Problem: water pollution

#### 6R solution:

- \*Reduce water-use indoors
- \*Reject chemical products in favor of natural products outdoors.
- \*Release cooking oil or grease into trash.
- \*Recycle motor oil.
- \*Refuse to litter. Pick up litter.
- \*Restore pure water.

### Problem: global warming

#### 5R solution:

- \*Reduce use of electricity, energy.
- \*Reuse packaging.
- \*Recycle paper, plastic, glass, metal.
- \*Restore natural cycles by composting plant residue.
- \*Regularly use eco-friendly products.

### Problem: climate change

#### 7R solution:

- \*Reduce use of electricity, energy and water.
- \*Regularly use eco-friendly products.
- \*Recycle everything possible.
- \*Reuse anything you can.
- \*Ride or walk.
- \*Readily volunteer for community environmental projects.
- \*Restore tree loss by planting a tree.