

Trees In Trouble – Activity #77



TEKS:

Science

1.1 A, B

1.2 A, B, C, D, E

1.4 A, B

1.10 A, B

2.1 A, B

2.2 A, B, C, D, E, F

2.3 A, B

2.4 A, B

2.9 A, B

2.10 B

3.1 A

3.2 A, B, C, D, E, F

3.4 A, B

3.9 A, C

3.10 A

4.1 A

4.2 A, B, C, D, E, F

4.4 A, B

4.7 A

4.9 A

4.10 A

5.1 A

5.2 A, B, C, D, E, F

5.4 A, B

5.9 A, D

5.10 A, B

6.1 A

6.2 A, B, C, D, E

6.4 A, B

6.12 E

7.1 A

7.2 A, B, C, D, E

7.4 A, B

7.10 B

7.13 A, B

8.1 A

8.2 A, B, C, D, E, F

8.4 A, B

Texas Overview:

Sept. 13, 2008. That was the day Hurricane Ike slammed into Galveston Island. For residents living along the Gulf Coast, that day changed not just their lives but also their landscape. Trees and shrubs were submerged in a salty storm surge brought ashore by the hurricane. As a result of the salt poisoning, more than 10,000 trees were labeled as dead or dying. This is a sure sign of trees in trouble. Many of these trees were planted after the Great Storm of 1900 more than a century ago.

Texas Forest Service headed to Galveston after the storm to survey the damage and help save the trees. After studying the trees, foresters determined the roots and trunks likely absorbed too much salt, damaging the food stored for spring budding or production of leaves. If the trees can't produce leaves, they can't produce food. Photosynthesis, the food-making process, takes place mainly in the leaves. The salt seems to have acted as an herbicide, killing the trees. Foresters tried a salt leaching process, but it has not showed signs of working.



The dead trees are being cut down. But a big question remains. What you do with all the wood? Some artists made sculptures out of the trees. Mystic Seaport, a shipyard in Connecticut, took trees to help restore the Charles W. Morgan, the last surviving wooden whaling ship in the country. Oaks are the preferred wood for refurbishing this ship.

The cost of removing these trees will cost millions of dollars. This does not include the decrease in home values because of the death of so many valuable landscape trees. The tree loss also resulted in habitat and ecosystem damage.

After Hurricane Ike struck Galveston, the storm cut a path through East Texas. Many pines and other trees were damaged by high winds. Some trees were blown down and others lost their tops. When the top of a pine tree is

8.11 A, B, C

Language Arts

1.4 B, C

1.5 A, B, C

1.18 B

2.1 A, B, C, D, E

2.4 A, B, C, D

2.12 A

3.1 A, B, C, D, E

3.4 A, B, C

3.9 G

3.12 A, J

4.2 A, B, C

4.1 A, B, C

4.13 A-H

5.1A, B, C

5.2 A, B, C, D

5.12 A

5.15 A, B, C

6.23 A, B, C, D

6.24 A, B

6.26 A, B, C

7.22 A, B

8.22 A, B

8.23 A, B, C

8.24 A, B

8.25 A, B, C, D

ripped off, the tree can't grow any taller because the part of the stem that allows it to grow is gone.

Another problem: when trees are damaged, they have a harder time fighting off disease, insects and fungal infections.



Resources:

http://fhm.fs.fed.us/fhh/fhh_08/tx_fhh_08.pdf

http://txforestservice.tamu.edu/uploadedFiles/FRD/Urban_Forestry/GalvestonROWSurvey-Full%20Report.pdf

www.agr.state.tx.us/agr/media/media_renderer/0,1460,1848,17080,29509_0,00.html?clipContentId=29505

http://txforestservice.tamu.edu/uploadedFiles/FRD/Urban_Forestry/BroadwayTreatmentPlan.pdf

All photos provided by Texas Forest Service.