

Succession of Forests
5E Lesson Plan

2. Subject area / course / grade level: Ecosystem, Slow Changes, 5th grade

3. Materials List:

- Map of Texas ecoregions, colored pencils/crayons
- Variety of Seeds traveling by wind or animal fur and waste - suggestions to include Pinecones, Mesquite seeds, Crapemyrtle, Hickory.

4. Overarching TEKS, [ELPS](#), [CCRS](#), and Global Graduate/other district standards (chart or list).

<i>TEK</i>	<i>CCRS</i>	<i>ELPS</i>	<i>Other</i>
<i>5a(2)(3)(4)</i>		<i>§74.4. (c) (1) (A) (B) (C)</i>	
<i>5b(10)</i>			

5. Lesson Objective/Summary: Students will learn how a forest can change over a long period of time.

7. Community-Based Resources:

- A. <http://texastreeid.tamu.edu/index.aspx>,
https://tpwd.texas.gov/publications/pwdpubs/pwd_pl_w7000_1187a/media/1.pdf
<https://www.texasgateway.org/resource/ecological-succession>
https://www.allaboutbirds.org/guide/Red-cockaded_Woodpecker/media-browser-overview/466849

- B. Use a Blended Learning model for student
https://docs.google.com/document/d/e/2PACX-1vRmXkorSSj_z5gnRCpClcqRVOy2_cH8CYIwTQMybRj_LHnjd0WQo40492ty8eg250GYRJTMsgNhRGooof/pub

Or

- https://docs.google.com/presentation/d/e/2PACX-1vQRkz8wbFdaELROA8RypvKTCazfcRBl-ob-4IV_gDnA-YWVdnGm8kUAVFp-Pcgw7nkPMWPiGrBFuENG/pub?start=false&loop=false&delayms=3000

8. Engage: Whole Group - Teacher Led (5min)

Watch the video of the Red-cockaded Woodpecker

[https://www.allaboutbirds.org/guide/Red-cockaded Woodpecker/media-browser-overview/466849](https://www.allaboutbirds.org/guide/Red-cockaded_Woodpecker/media-browser-overview/466849)

write down things they see and hear... Ask - What Ecosystem do you think this bird is found in, explain why you choose that ecosystem?

9. Explore: Student Led - Partner/small group (10 min)

Have students create a key to identify where the ecoregions of Texas are identifying the Gulf Coast Prairies and Marshes to the Pineywoods to the Post Oak Savannah

https://tpwd.texas.gov/publications/pwdpubs/pwd_pl_w7000_1187a/media/1.pdf

10. Explanation: Small Group with the Teacher (10 min)

Using the video <https://www.texasgateway.org/resource/ecological-succession> explain each vocabulary term in your own words, you may need to pause and rewind .

Pioneers Species on Rock - (use the word Lichen)

Intermediate Species or Early Colonizers - (use the words soil and fungi)

Biodiversity or Opportunists - (explain how seeds are dispersed)

Mature Forest - (explain how seeds are dispersed)

11. Elaboration: (10min)

Using either seeds collected yourself or through the Trees of Texas

<http://texastreeid.tamu.edu/index.aspx> to identify and classify seeds into the different stages of succession.

Seeds that spread by wind - Intermediate or early colonizers

Seeds that are spread by animals would be a mature forest

What type of trees are found in the Pineywoods forest compared to the Western Gulf Coastal Plain?

12. Evaluation: (10 min)

Use the Pond Succession and Succession Vocabulary to check on what you have learned

<https://www.texasgateway.org/resource/ecological-succession>