

Backyard STEM for Tennessee 4-H

Climate Change Trends & Effects Worksheet

Access to the internet is required to complete this activity. Please use the following website to access resources needed to answer the questions below: <https://tiny.utk.edu/climatechange>

Seasonal Warming Trends in Tennessee and the United States.

1. In which season is Tennessee experiencing the fastest warming?	Spring Summer Fall Winter
2. Approximately how many degrees has each of the four seasons warmed during the period from 1970 to 2017 (round to the nearest 0.25 degree F)?	Spring <u> 2.25 </u> Summer <u> 1.5 </u> Fall <u> 1.25 </u> Winter <u> 3.5 </u>
3. Which season is warming the fastest by the most states?	Spring Summer Fall Winter
4. Name a state that is experiencing fastest warming for each of the seasons.	Spring <u> California, etc </u> Summer <u> Washington, Oregon </u> Fall <u> Texas, etc </u> Winter <u> Florida (entire east) </u>

Mosquito danger days.

1. What is the range of average daily temperature that is considered “disease danger days?”	<u> 61 </u> F to <u> 93 </u> F
2. Which Tennessee city has seen the biggest increase in “mosquito danger days” per year?	Chattanooga Nashville Jackson Memphis Knoxville Tri-cities
3. Name a city outside of Tennessee that has seen more of an increase in “mosquito danger days” than any city in Tennessee.	<u> Bluefield, VA; Reno, NV; San Francisco, CA; Burlington, VT; Las Vegas, NV; etc </u>

Frequency of heavy downpour rains.

1. Approximately how many heavy downpours occurred in Tennessee in the years listed?	1955 - <u> 15 </u> 1960 - <u> 10 </u> 1975 - <u> 27 </u> 1985 - <u> 15 </u> 2010 - <u> 27 </u>
2. Is the trend in frequency of heavy downpours increasing or decreasing in Tennessee?	Increasing Decreasing

Agricultural growing season.

1. Approximately how many days longer is the current growing season than it was in 1975 in the United States?	5 days 12 days 25 days
2. Rank these Tennessee cities from longest to shortest number of days later the first frost is coming.	Knoxville <u> 4 </u> Memphis <u> 1 </u> Nashville <u> 2 </u> Tri-Cities <u> 3 </u>

Occurrence of tornados.

1. Is there a consensus on whether climate change is affecting tornados?	Yes No
2. Is the trend in number of tornados per year in Tennessee going up or down? Use the data table to create a graph and answer this question.	Up Down

Tennessee Tornados

Data from www.tornadohistoryproject.com

<u>Decade</u>	<u>Number of Tornados</u>
1950 - 1959	95
1960 - 1969	74
1970 - 1979	180
1980 - 1989	114
1990 - 1999	220
2000 - 2009	289
2010 - 2016	277

