Finding Data

Data Year
You can either use 2024 data or you can use historical data from previous years for your project. Some people prefer to use historical data because it enables better estimation of the materials required and because the entire project can be done quickly rather than over the course of an entire year. Other people choose historical data because they are creating a blanket to commemorate the year of a special occasion, such as a birth or a wedding.

Data Region
Temperature projects display data for a specific region, so you will need to choose the geographic location of your dataset. Many people choose specific cities for their projects, but your data can reflect anything from global weather to the temperatures in your own backyard.

Data Type
Temperature blankets traditionally use temperature data - either daily lows and highs, daily averages, or weekly/monthly averages. Don't let this deter you from choosing a different type of dataset, though. You can use any type of data that covers the span of a year and is collected regularly.

Luckily, at NOAA, there is *plenty* of data to choose from! Listed below are some websites where you can find a variety of datasets.

Climate at a Glance
This tool from NCEI provides historical temperature data for the years 1895-2023. You can view data for the globe, nation, region, state, division, county, or city. Along with average temperatures, you can also view anomalies and rankings. Data for a year can be downloaded quickly as a CSV file. (https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/national)

NOWData
This tool from NWS provides historical and current weather data for 122 weather forecast offices across the country. You can view average temperatures, low and high temperatures, snowfall, precipitation, and more. (https://www.weather.gov/wrh/climate)

Regional Climate Centers
This landing page links out to the six Regional Climate Centers. These websites can help you find historical and current data related to a specific region, state, or county. Many centers have data related to weather events such as snowfall, soil temperature, drought, and precipitation. (https://www.ncei.noaa.gov/regional/regional-climate-centers)

NCEI Data

Looking for data on sea ice or ocean acoustics? Maybe you're more interested in geomagnetism and space weather. This landing page will point you to sources for a variety of datasets - NCEI's archive currently contains over 60 petabytes of data! (https://www.ncei.noaa.gov/products)

Climate and Hazard Mitigation Planning (CHaMP) Tool

This tool provides in-depth historical and predicted data for states in the Northeast and states surrounding the Great Lakes. The data includes rainfall, fog, winter weather, extreme heat, and more. Datasets for individual counties can be downloaded as CSV files or printed as charts. (https://champ.rcc-acis.org/)

xmACIS2

This site provides quick access to daily and monthly data in both HTML and CSV formats. (https://xmacis.rcc-acis.org/)

CoCoRaHS

CoCoRaHS, which stands for the Community Collaborative Rain, Hail & Snow Network, is the place to go for data related to - you guessed it - rain, hail and snow! This citizen science collaborative has been driven by volunteers for the past 25 years. The CoCoRaHS Data Explorer tool can help you find detailed data. (https://www.cocorahs.org/)

National Data Buoy Center

Find historical and recent data from over 1300 buoy stations across the world! This site allows you to find data for a variety of groups: wind gusts, wave heights, sea level pressure, sea surface temperature, visibility, water level, and more. (https://www.ndbc.noaa.gov/)

Center for Operational Oceanographic Products and Services (CO-OPS)

NOAA's Tides and Currents website hosts a wealth of meteorological and oceanographic data. You can find both historical and recent data for water levels, tides, water temperature, barometric pressure, and more. (https://tidesandcurrents.noaa.gov/)

Climate Stripes

Instead of doing a project that represents one year of data, why not do a project that visualizes average data over the course of a century? The Climate Stripes Story Map will show you visualizations of the average temperature and average precipitation rates across the country from 1895 to 2022. Make sure to read the About the Images section for a description of how the stripes were created using data from NCEI. (https://www.climate.gov/news-features/features/climate-stripes-graphics-show-us-trends-state-and-county)