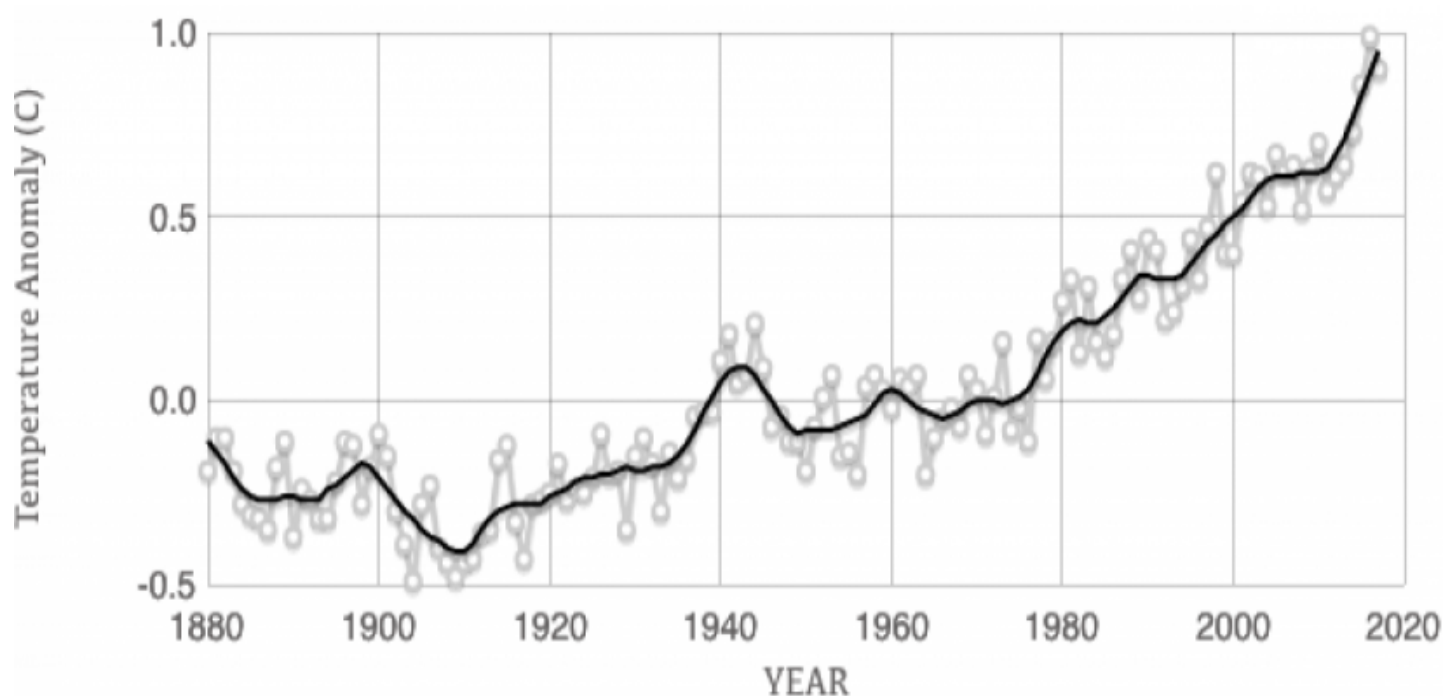


My NASA Data - Maps, Data, and Models

Global Temperatures Graph



Source: climate.nasa.gov

This graph illustrates the change in global surface temperature relative to 1951-1980 average temperatures. Seventeen of the 18 warmest years in the 136-year record all have occurred since 2001, with the exception of 1998. The year 2016 ranks as the warmest on record.

(Source: [NASA/GISS](https://www.nasa.gov)). This research is broadly consistent with similar constructions prepared by the [Climatic Research Unit](https://www.climaticresearchunit.com) and the [National Oceanic and Atmospheric Administration](https://www.noaa.gov).

Mini Lesson

Analyzing Air Temperature Graphs

Goal: Use the My NASA Data Cubes to guide students' exploration of graphs, maps, and datasets to enrich their observations and inferences.

Materials:

- 1 Cube per group/student

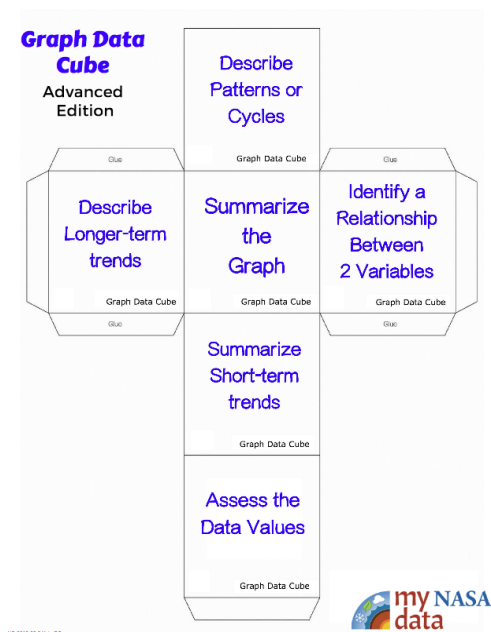
- 1 matching Cube Question Sheet
- 1 sheet of paper per student
- Pencil

Teacher Preparation:

Print copies of the cube on cardstock and cut out. Assemble the cube with glue. Note: consider laminating after you cut these out for multiple uses. Also, print off copies of the Cube Questions. Distribute to students for group or independent work.

Procedure:

1. Distribute one cube per group, as well as the related Cube Questions sheet.
2. Students roll the cube and find the matching question on the Cube Question sheet. E.g., “Identify a Relationship Between 2 Variables.”
3. Answer one question found under matching question on a sheet of paper, labeling the question with the number and letter of the question.
4. Repeat Steps 2-4 until at least 10 are answered.



Graph Data Cube - Advanced Template

Sphere(s)

- [Atmosphere](#)

Phenomenon

- [Changing Air Temperatures](#)

Dataset in LAS

-
- [Global Atmospheric Temperatures](#)
 - [Global Land-Ocean Temperature Index](#)
 - [Atmospheric Global Temperature Differences Time Series: 1884-2017](#)

Related Links

- [Data Literacy Cubes \(Graphs, Maps, and Data Tables\)](#)

Document Resources

Document Resources

- [Global Annual Mean Surface Air Temperature Change](#)