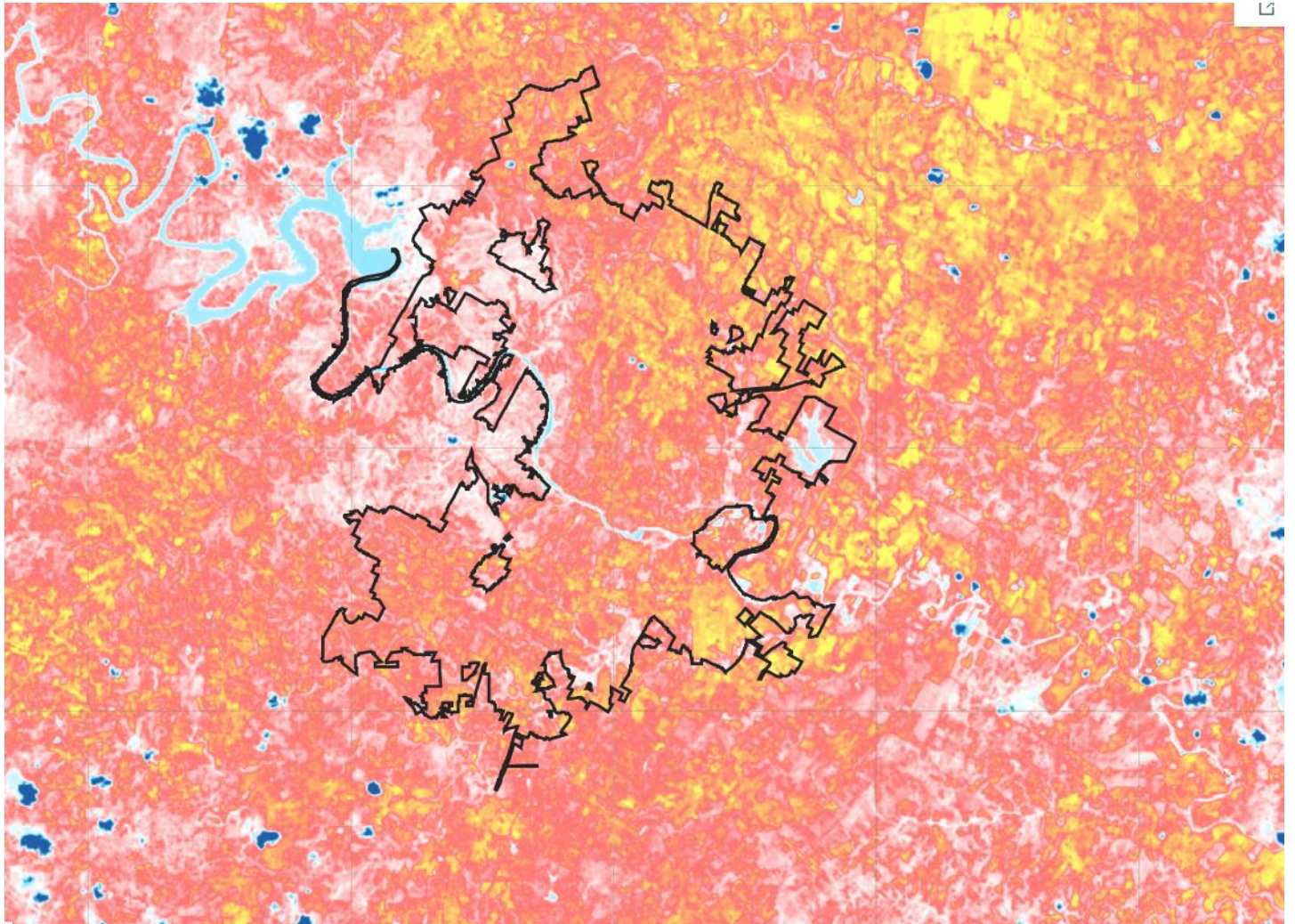

My NASA Data - Interactive Models

Patterns in Earth's Surface Temperature



Land Cover and Surface Temperature

Left Side

Surface (Skin) Temperature
(degrees Fahrenheit)

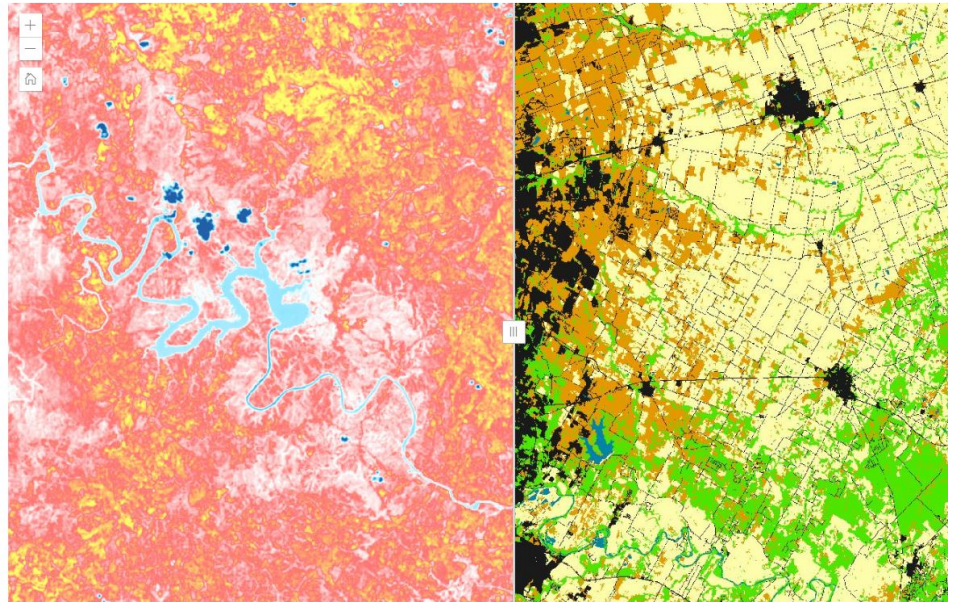


Right Side

Land Cover Classification



The map compares the recorded surface (skin) temperature of Austin, Texas on August 18th, 2020 on the left with land cover classification on the right. In the classification, green represents forests, yellow represents croplands, orange represents desert/barren, and black represents developed land, or cities.



[CLICK HERE](#)

Learning Objectives

- Students will analyze how surface (skin) temperatures vary among a community and determine what factors contribute to this variation.
- Students will describe the relationship between surface (skin) temperature and surface air temperature.

Essential Questions

- How does human activity affect the local environment?
- What factors contribute to variation in surface (skin) temperatures across a community?
- What factors affect air temperature in a community?

Materials Required

- Computer/Tablet
- Internet Access
- Google Form (optional)
- Link to [Patterns in Earth's Surface Temperature Interactive Model](#)

Teacher Answer Key

Teachers who are interested in receiving the answer key, please contact My NASA Data from your school email address at larc-mynasadata@mail.nasa.gov

Grade Band

- [3-5](#)

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- [6-8](#)
 - [9-12](#)

Supported NGSS Performance Expectations

- [4-ESS2-2: Analyze and interpret data from maps to describe patterns of Earth's features.](#)
- [MS-ESS3-3: Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.](#)
- [HS-ESS3-6: Use a computational representation to illustrate the relationships among Earth systems and how those relationships are being modified due to human activity.](#)

NGSS Disciplinary Core Ideas

- [ESS2A: Earth Materials and Systems](#)
- [ESS3C: Human Impacts on Earth Systems](#)

Science and Engineering Practices

- [Developing and Using Models](#)
- [Analyzing and Interpreting Data](#)

Crosscutting Concepts

- [Patterns](#)

Related Resources

- [Patterns in Earth's Surface Temperature Interactive Model](#)
 - [Human Impact and the Creation of Urban Heat Islands](#)
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