

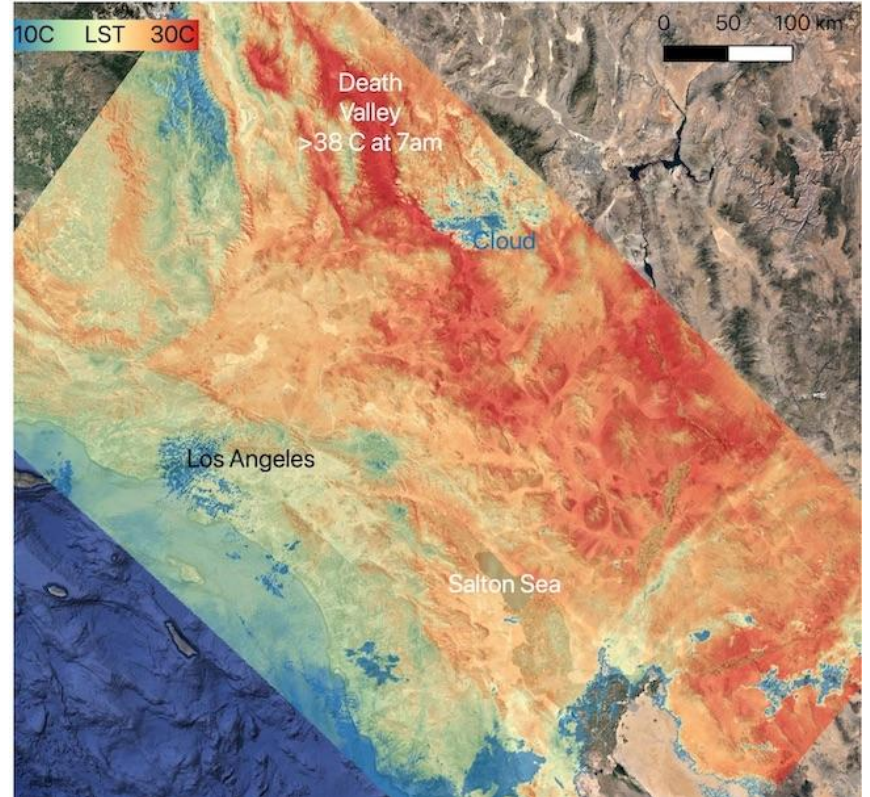
Mission Sensor Watch: Cool Your Community

Exploring Heat Islands with Google Maps

By Tiffany Lucey

Introduction to Google Maps

- Google Maps is a powerful tool for exploring our world!
- It provides satellite imagery, terrain views, and street views.
- You'll use it to find your community and identify potential **heat islands**—urban areas that are warmer than surrounding areas due to human activities.



Finding Your Community

1. Open Google in your web browser at <http://www.google.com>.
2. Search for your town, school, or home address (e.g., "Tom's River High School East").
3. Look for the small map on the right side of the search results.
4. Click on the map to open the full Google Maps view.

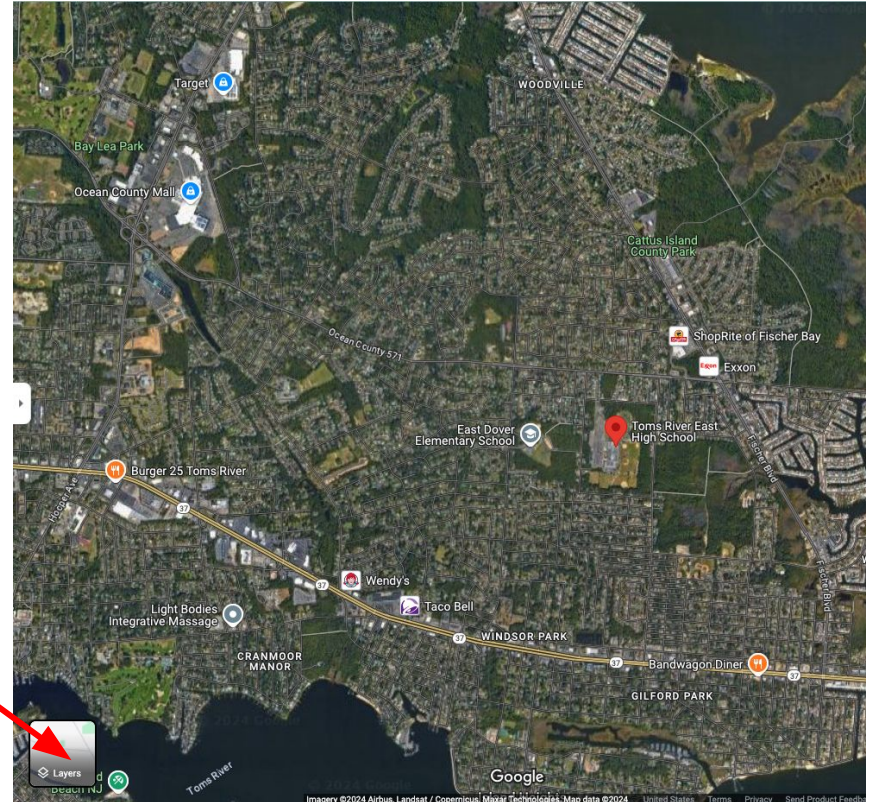
The screenshot shows a Google search for "Tom's River High School East". A red arrow labeled "2" points to the search bar. On the right side of the search results, there is a small map thumbnail with a red pin. A red arrow labeled "3" points to this map thumbnail. The search results include:

- Toms River Regional School District**: <https://www.trschools.com/ttheast>
- High School East**: The learning hub of High School East. Students Clever, Code of Conduct, summer reading assignments, anti-bullying info, mental health resources, Career ...
- Wikipedia**: https://en.wikipedia.org/wiki/Toms_River_High_School_East
- Toms River High School East**: Toms River High School East is a comprehensive four-year public high school, the third high school built in Toms River in Ocean County, in the US state of New Jersey ...

The map thumbnail shows a building labeled "Toms River East High School". Below the map, the search results for "Toms River East High School" are displayed, including a "See photos" button, "Website", "Directions", "Save", "Share", and "Call" buttons. The school's address is listed as "1225 Raider Way, Toms River, NJ 08753".

Switching To Satellite View

1. Find the Layers option at the bottom left edge of the map.
2. Click on Satellite to change the view.
3. The map will now show a real aerial photo of your school and surroundings.



Identifying Potential Heat Islands

Consider:

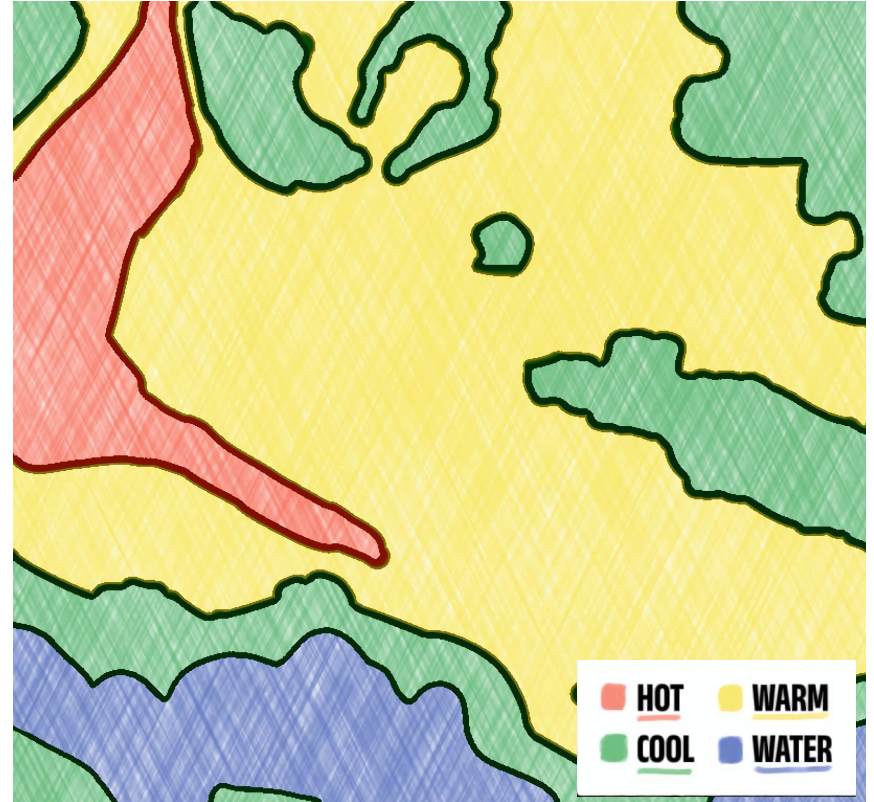
- How much green space is there?
- Are there large parking lots or dense buildings?
- How might these affect local temperatures?

To the right you'll see a map with areas circled in red. These are likely to be areas with heat island. Areas circles in green are unlikely to have heat islands.



Make A Heat Map Of Your Community

1. Any areas that you predict would be over 70 degrees, mark as hot and color it red.
2. Areas that you predict would be cooler, under 60 degrees, mark as green.
3. Finally, mark anything in yellow that's kind of in the middle, between 60 and 70 degrees.
4. Remember to include a legend to show what each color represents in your drawing.



Make A Heat Map Of Your Community



Imagine A Solution For Heat Islands

The EPA suggests five big ways to cool heat islands:

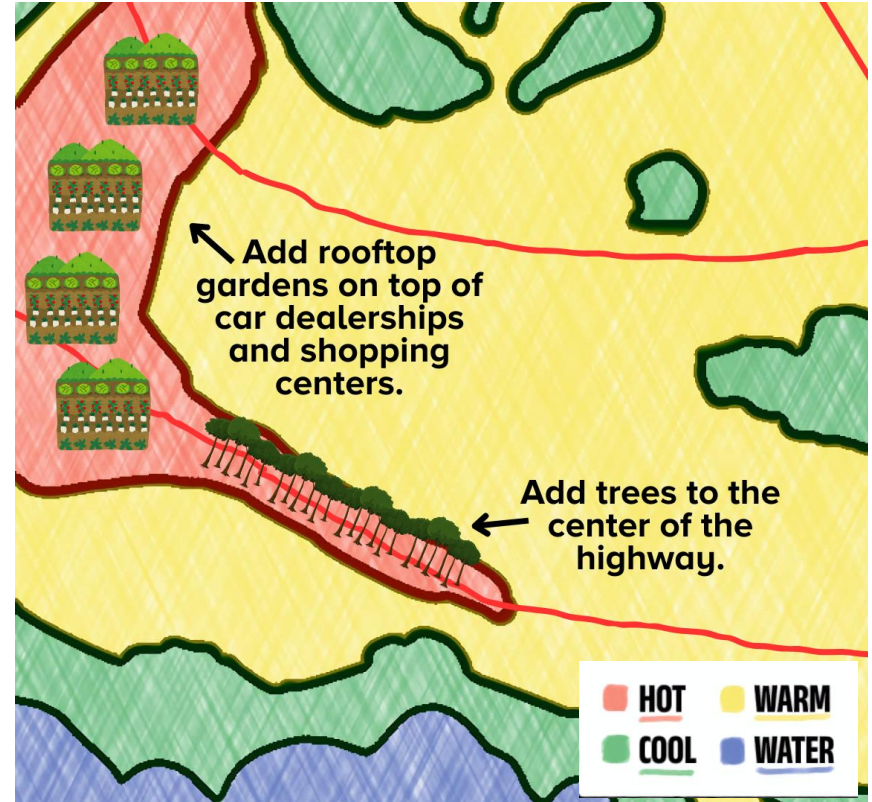
- Increase the number of plants in the area, by adding park land and more green spaces.
- Use cool paving materials that may require coatings over existing concrete or asphalt, or even new grass greenways.
- Build green roofs in which a rooftop garden can provide more shade. Green roofs can be 30–40 degrees Fahrenheit cooler than non-green roofs.
- Install cool roofs, which absorb less heat due to their color (typically white) and reflective properties.
- Plan smart growth projects that add green infrastructure improvements to regular street upgrades.

Imagine A Solution For Heat Islands

Consider the red areas on the map you drew.

- Which of the five big ways to reduce heat islands would work best for your community?
- Why do you think that solution would work for your community?
- How would you know your solution is successful?

Mark where you would include features or change the infrastructure to reduce heat islands.



Watch The Instructional Video!

