

# ACTIVITY GUIDE



## URBAN HEAT ISLANDS

Climate change is expected to bring hotter summers to Pittsburgh. Participants explore causes of high and low surface temperatures in cities and discuss solutions to keep Pittsburgh cool.

### IN THIS KIT

- Informational signs:
  - Heat island map\*
  - Heat island information
  - Albedo information
  - Try it! sign
- Heat Island Hotspots yardstick
- 8 Pittsburgh scenes with temperature gradient

\*colors on the map indicate land surface temperature, a measurement that is different than (but has a strong relationship to) air temperature

### BIG QUESTIONS

- What are urban heat islands? Why are cities hotter?
- How do different surfaces result in different temperatures?

### HOW TO SET UP

- 1) Display Pittsburgh scene cards with the temperature gradient hidden (folded behind the card).
- 2) Display Try It! sign, heat island map, and heat island yardstick.

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## FACILITATION GUIDE

(This works best if children are directed to the activities, while caretakers are engaged in conversation and display information. This script is written for one visitor at a time but can be adapted for groups.)

- Urban areas are often much hotter than surrounding areas. Why do you think that might be? *(Discuss potential causes. Urban Heat Islands are caused by concrete and other absorbent surfaces capturing heat, and also by a lack of green spaces that cool through evaporation. Urban Heat Islands change local weather patterns and increase city energy use to regulate indoor temperatures.)*
- Take a look at these pictures. Which place is the hottest? Which is the coolest? Order them from hottest to coolest. *(Discuss factors of a location that could result in warmer or cooler temperatures. Point participant to the albedo sign and explain how different surfaces absorb or reflect light.)*
- Now, flip them over and compare your guesses to our heat index ruler. Why are some places hotter than others? How does your own neighborhood compare? How might green infrastructure change the temperature of city spaces on hot days?

## FINISHED KIT



## ABOUT CUSP

CUSP helps urban communities explore climate impacts and solutions through active engagement with local examples.



Climate & Urban  
Systems Partnership

