

ACTIVITY GUIDE

COMPLETE STREETS

Carbon dioxide released from transportation contributes to climate change. Participants design a city street and consider the balance between alternative transportation, traffic, and carbon footprint.

IN THIS KIT

- 1 electric football board
- 6 removable magnetic vehicle lanes (2 bus, 2 car, 2 bike)
- 2 removable magnetic medians
- Cars on green bases, buses on red bases, bikes on green bases
- 1 carbon bubble box (4 plexiglass sheets, 1 wooden base, aquarium tubing)

IN THIS KIT (continued)

- Carbon bubbles (red, yellow, green)
- Activity sign (protected in plastic display)

BIG QUESTIONS

- How does transportation contribute to climate change?
- What is the right balance of vehicles, lanes, and space in a city?

HOW TO SET UP

- 1) Assemble carbon bubble box by fitting plexiglass sheets into slots in wooden base (green tape at bottom, red at top). Slide aquarium tubing across the top of plexiglass to secure the top.
- 2) Place electric board on table and place 4 car lanes on the surface. Place all the vehicles in these lanes, representing the mixed use of lanes most common in our city.
- 3) Place one carbon bubble (red styrofoam ball = car, green ball = bike, yellow = bus) into the carbon bubble box for every vehicle on the road.

FINISHED KIT



ABOUT CUSP

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



Climate & Urban
Systems Partnership



COMPLETE STREETS

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.)

- Have you ever been stuck in traffic? (Alternative opening: What do you know about climate change?)
- Most streets look like this (point to board, with 4 traffic lanes filled with mix of cars, buses, and bikes), where everyone shares the same lanes. *(Turn on board, see vibration and traffic jams forming.)* What is happening here? *(Discuss traffic, danger of shared lanes for cyclists, etc.)*
- Another really important element of transportation is its impact on climate change. What do you know about climate change? *(Depending on age, discuss extreme weather events, hot summers or cold winters, or more advanced signs of climate change in the city.)*
- One really big contribution to climate change is carbon dioxide, or CO₂. When cars drive around, they release CO₂ into the air.
- *(Point to carbon bubble box.)* If you look over here, each of these bubbles corresponds to a vehicle on our street over there. Each red bubble matches a car, each yellow matches a bus, and each green matches a bicycle. What do you notice about the sizes of the bubbles? *(Engage in discussion about relative CO₂ impact of cars vs. buses vs. bicycles.)*
- Can you redesign this city street to make everyone safer, reduce traffic, and reduce the carbon dioxide impact of our city? See if you can keep the balls below the green line! *(Invite participant to rearrange lanes and cars to play with carbon and traffic impact. Sometimes it's easier to take all lanes & cars off the board and empty the CO₂ bubble box and slowly add vehicles/bubbles to the game. Encourage use of medians to protect bike lanes, continue discussion as they are redesigning.)*
- Can we have spaces between the lanes? This represents what urban planners call a “cartway”, the space between two sidewalks. This is the space we have to work with and by making lanes we should use the entire thing up.