

ROLL YOUR RIDE

LEARN HOW TRANSPORTATION CHOICES AFFECT CLIMATE CHANGE WHILE PLAYING A FUN, CARNIVAL-STYLE GAME!

HOW TO PLAY:

- **ROLL 6 BALLS DOWN THE TABLE. YOUR GOAL IS TO HAVE A TOTAL SCORE, AFTER THROWING ALL 6 BALLS, OF LESS THAN 14, OR OVER 29.**
- **EACH NUMBER REPRESENTS A MODE OF TRANSIT. 1, 2, 5, AND 6 ARE ECO-FRIENDLY TRANSIT OPTIONS. 3 AND 4 ARE NOT AS ENVIRONMENTALLY-FRIENDLY MODES OF TRANSPORTATION.**

You likely get around—whether that’s to school, to work, or doing an errand—by walking or bicycling, driving a car, or riding the train or bus. In this game, after throwing 6 balls into spaces, your goal is to have a score of less than 14 or greater than 29. Because 1, 2, 5, and 6 are the best numbers for getting these scores, these numbers correspond to the most environmentally-friendly transit options. 3 and 4 don’t help a lot with getting a very low or high score, and these numbers represent transportation modes that aren’t as good for the environment.

As you can see, changing your transportation methods can greatly reduce your carbon footprint. What can you do? Switch to riding public transportation, set up a carpool, or purchase an electric vehicle.

If just one driver per household switched to taking public transportation for a daily commute of 10 miles each way, this would save 4,627 pounds of carbon dioxide per household per year—equivalent to an 8.1% reduction in the annual carbon footprint of an average American household!

FOR EVERY MILE THAT YOU TRAVEL,

A **BICYCLE** releases **90** grams of CO₂ equivalents, if the food that supplies your energy is cereal with milk

A **DIESEL COMMUTER TRAIN (CALTRAIN)** releases **150** grams of CO₂ equivalents and **45** when all seats are filled

A **SMALL GASOLINE CAR** releases **335** grams of CO₂ equivalents

A **LARGE GASOLINE CAR** releases **463** grams of CO₂ equivalents

An **ELECTRIC CAR** releases **110** grams of CO₂ equivalents (if there is only one person in the car) and a **PLUG-IN HYBRID** releases **185** grams (if there is only one person in the car)

A **LOCAL BUS** releases **136** grams of CO₂ equivalents

OTHER MODES OF TRANSPORTATION:

Highway Motorcoach (Greyhound): **43 grams/mile**

Intercity Rail (Amtrak): **147 grams/mile**

Domestic Air Travel: **744 gram/mile**

ELECTRIC CARS AND THEIR CARBON EMISSIONS:

It can be tricky to calculate the carbon emissions of electric cars, but they are usually based on where you live and the sources of energy that power electricity in that area. Take a look at this:

California

Sources of Electricity	
49.36%	Natural Gas (<i>non-renewable</i>)
24.15%	Hydropower/Solar (<i>renewable</i>)
Carbon Dioxide Emissions per mile	
110g	Electric Car
185g	Plug-In Hybrid

Nevada

63.79%
9.46%

145g
204g

WANT TO LEARN MORE?

There are many good websites to check out if you're interested in learning more about how transit affects carbon emissions.

Energy Uses, organized by mode of transportation: tinyurl.com/emissions-by-transit-mode

Calculate Your Electric Vehicle emissions, based on where you live: tinyurl.com/electric-car-emissions

Electricity Sources, organized by state: tinyurl.com/state-electricity-sources

Conserving energy to prevent climate change is a hot topic! Check the Transit News page at thetransportationmuseum.com/transit-news to learn more!