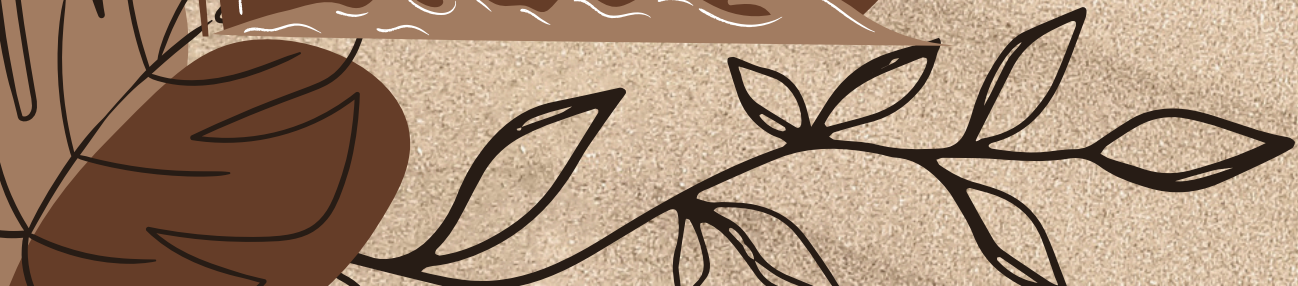




**WHAT IS THE MOST  
ENVIRONMENTAL WAY TO  
TRAVEL FROM ICELAND TO  
FLORENCE?**





# ENVIRONMENTAL PROBLEM

Our way of life has changed a lot since the middle of the 20th century. The industrial revolution and increasing pollution has lead to a negtive effects on the nature. The situation can be explained as a disruption of the carbon balance.

## WE NEED A BALANCE BETWEEN CARBON DIOXIDE AND OXYGEN

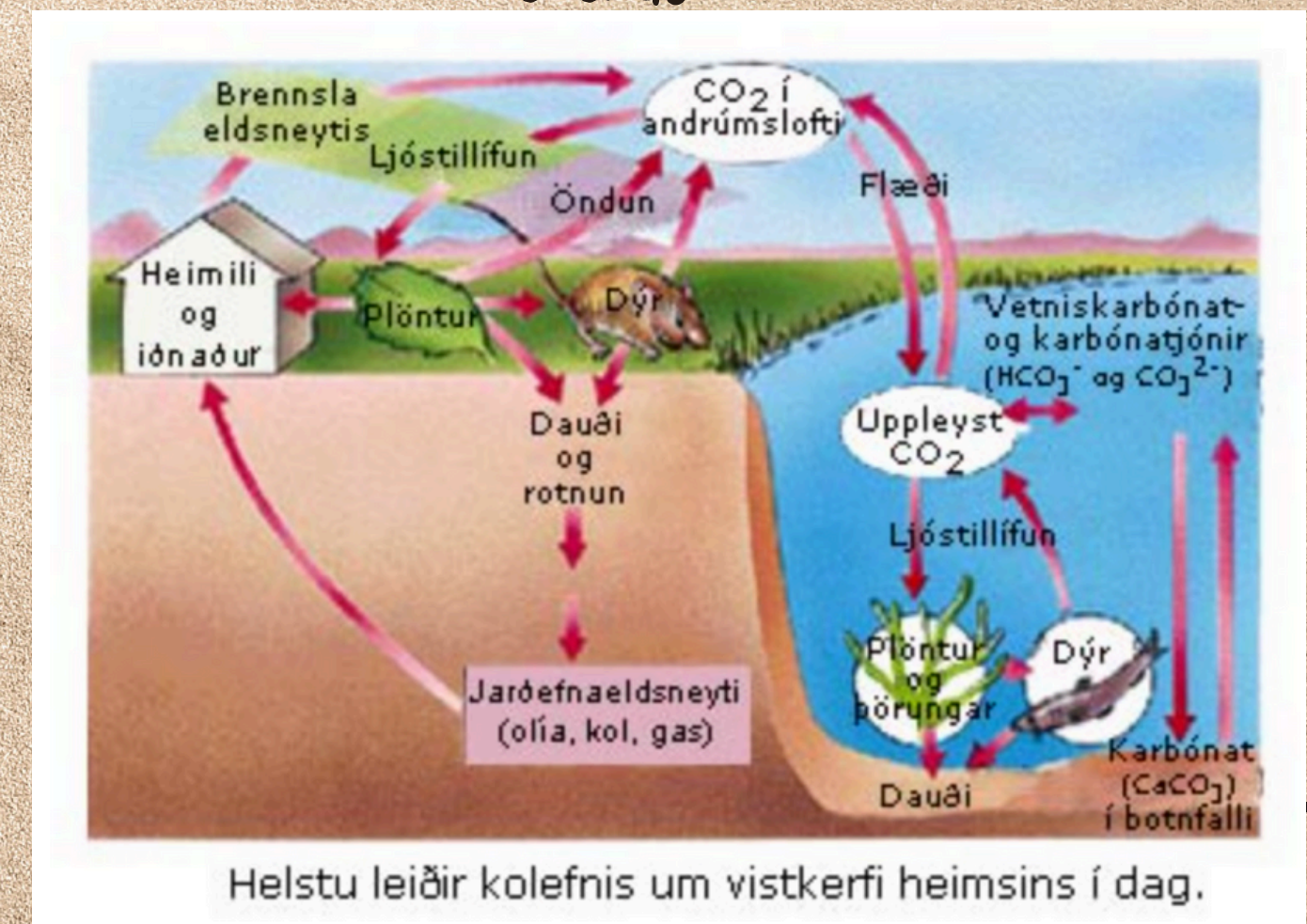
- Carbon dioxide is a necessary component in our atmosphere for life on earth as we know it. This particular gas element lets rays from the sun enter the atmosphere but traps much of the heat that gets returned from our planet, blocking heat beams from Earth. This is what we call a greenhouse effect. Carbon dioxide is the most potent of our environment's greenhouse gases.
- During the last two centuries the strength of carbon dioxide has increased in our atmosphere. The prime reason for this being that we burn an incredible amount of carbon-based fossil fuels; coals, oil and gas. Historically a balance was kept between carbon dioxide and oxygen by plants and other photosynthetic beings that are able to bind the carbon dioxide but they are not longer able to keep up. To make matters worse we, the humans, cut down a much greater amount of forests and other woodland than we or nature is able to replenish.

## PHOTOSYNTHESIS (A PLANT CELL)

CARBON DIOXIDE + WATER + SOLAR ENERGY => GLUCOSE + OXYGEN

## BURNING (AN ANIMAL CELL)

GLUCOSE + OXYGEN => CARBON DIOXIDE + WATER + ENERGY



In this project we are going to focus on:

WHAT IS THE MOST ENVIRONMENTAL WAY (MINIMAL USAGE OF CARBON DIOXIDE) TO TRAVEL FROM ICELAND TO FLORENCE?

### Route 1

Aðaldalur – Akureyri: A car

Akureyri – Reykjavík: An airplane

Reykjavík – Keflavík: A car

Keflavík – Florence: An airplane



The most common way travelling to another country or the quickest way?

### Route 2

Aðaldalur – Seyðisfjörður: A car

Seyðisfjörður – Danmörk: A ferry

Hirtshals/Dan – Florence: A car



This way takes far more time but is it more environmental friendly?

### Useful web sites and information

<https://kolvidur.is/carbon-calculator/>

Information from the Smyril line:  
the average release of carbon dioxide from Seyðisfjörður to Hirtshals is 27 kg per person with a vehicle

A COMPARISON BETWEEN THE USAGE OF CARBON DIOXIDE ACCORDING TO DIFFERENT WAY OF TRAVEL



Route 1	CO <sub>2</sub>
Aðaldalur – Akureyri: A car	20 kg
Akureyri – Reykjavík: An airplane	40 kg
Reykjavík – Keflavík: A car	10 kg
Keflavík – Florence: An airplane	440 kg
Total CO <sub>2</sub>	510 kg

route 2	CO <sub>2</sub>
Aðaldalur – Seyðisfjörður: A car	40 kg
Seyðisfjörður – Danmörk: A ferry	27 kg
Hirtshals/Dan – Florence: A car	100 kg
Total CO <sub>2</sub>	167 kg

Difference CO <sub>2</sub>	
Route 1	510 kg
Route 2	167 kg
Difference	343 kg