



## Sustainable consumption: individual action

### *Education in Chemistry*

Sustainability in chemistry 2021

**Goal 12: ensure sustainable consumption and production patterns**

[rsc.li/2ULAaWW](https://rsc.li/2ULAaWW)

**How can your individual actions reduce your 'material footprint' (the amount of primary materials needed to meet the basic needs for food, clothing, water, shelter, infrastructure and other aspects of life) to help tackle the climate crisis and ensure a sustainable future for our planet?**

### Learning objectives

- You will be able to reflect on your individual actions to determine how you could reduce consumption of materials.
- You will understand the impact these individual actions can have on the climate and society.

### Task 1

Read each of the following and answer the questions as honestly as possible. You can use the links in the guidance sheet to help you learn more about the impact of each individual action.

Individual action	Would you do this?	Why?	Who might object if lots of people did this?	Why might they object?	Where might this be difficult for people to do?
Switch to energy efficient light bulbs					
Recycle your electrical devices rather than keep them in a drawer					

<b>Individual action</b>	<b>Would you do this?</b>	<b>Why?</b>	<b>Who might object if lots of people did this?</b>	<b>Why might they object?</b>	<b>Where might this be difficult for people to do?</b>
Choose 'ugly' fruits to help reduce waste					
Campaign for better recycling in your school/area					
Choose a 'green energy tariff' despite it being more expensive					
Buy good quality, second hand clothes					
Use reusable plastics or sustainable alternatives					

## Task 2

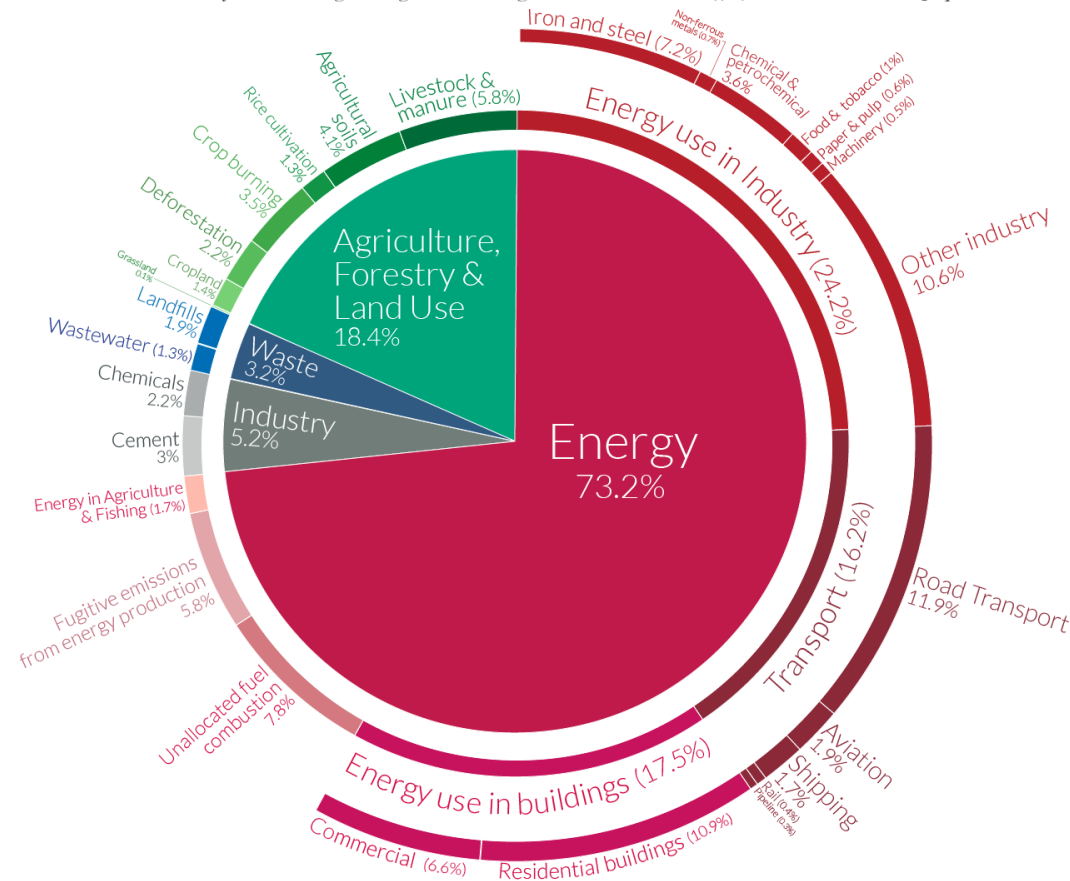
Link each of these actions to some data on global greenhouse gas emissions. Below is a pie chart with some data about the proportion of global greenhouse gas emissions by sector. For more information, visit: <https://ourworldindata.org/emissions-by-sector#energy-electricity-heat-and-transport-73-2>

Individual action	Which sector does this contribute to?	Put the actions in order of global greenhouse gas emissions from 1 (largest) – 7 (smallest)
Switch to energy efficient light bulbs		
Recycle your electrical devices rather than keep them in a drawer		
Choose 'ugly' fruits to help reduce waste		
Campaign for better recycling in your school/area		
Choose a 'green energy tariff' despite it being more expensive		
Buy good quality, second hand clothes		
Use reusable plastics or sustainable alternatives		

## Global greenhouse gas emissions by sector

This is shown for the year 2016 – global greenhouse gas emissions were 49.4 billion tonnes CO<sub>2</sub>eq.

Our World  
in Data



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## Guidance sheet

Individual action	Where to find more information
Switch to energy efficient light bulbs	Go to the 'Facts and figures' section of the Goal 12's webpage and find out about energy efficient lightbulbs:  <a href="https://www.un.org/sustainabledevelopment/sustainable-consumption-production/">https://www.un.org/sustainabledevelopment/sustainable-consumption-production/</a>
Recycle your electrical devices rather than keep them in a drawer	Use this infographic to learn some key statistics about electronic waste:  <a href="https://sdgs.un.org/sites/default/files/2021-07/SDG_report_2021_Goal%2012.png">https://sdgs.un.org/sites/default/files/2021-07/SDG_report_2021_Goal%2012.png</a>  Read Target 12.5 of this report, which provides more information about where e-waste production is highest and how it is managed in different places around the world:  <a href="https://unstats.un.org/sdgs/report/2021/extended-report/Goal%20(12)_final.pdf">https://unstats.un.org/sdgs/report/2021/extended-report/Goal%20(12)_final.pdf</a>
Choose 'ugly' fruits to help reduce waste	Find out how much food is wasted each year with the 'Food' section on the UN's goal 12 webpage:  <a href="https://www.un.org/sustainabledevelopment/sustainable-consumption-production/">https://www.un.org/sustainabledevelopment/sustainable-consumption-production/</a>
Campaign for better recycling in your school/area	Speak up about issues that are important to you. Get inspiration from the UN's ActNow Climate Campaign:  <a href="https://www.un.org/en/actnow/">https://www.un.org/en/actnow/</a>
Choose a 'green energy tariff' despite it being more expensive	Understand the considerations and complexities when it comes to making environmentally conscious decisions:  <a href="https://www.bbc.co.uk/news/business-56602674">https://www.bbc.co.uk/news/business-56602674</a>
Buy good quality, second hand clothes	Think about where and what you buy and how the production of clothes affects the climate:  <a href="https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf">https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf</a>  <a href="https://edu.rsc.org/resources/assessing-the-life-cycle-of-fashion-14-16-years/4010470.article">https://edu.rsc.org/resources/assessing-the-life-cycle-of-fashion-14-16-years/4010470.article</a>
Use reusable plastics or sustainable alternatives	Read about how developments in chemistry will help find alternative, sustainable plastics:  <a href="https://www.rsc.org/new-perspectives/sustainability/progressive-plastics/">https://www.rsc.org/new-perspectives/sustainability/progressive-plastics/</a>