

# UN Sustainable Development Goals Teacher Resource Pack



This resource pack provides background information and suggestions for related classroom activities to accompany the DiscoverChemEng 'I want to...' poster.

In a separate document, teacher notes provide additional tips, suggested answers and references.

If you need more posters, please email [DiscoverChemEng@icheme.org](mailto:DiscoverChemEng@icheme.org) with your request.

Please check our DiscoverChemEng website for more resources.

Scan here to  
find out more



IChemE

[www.icheme.org/discoverchemeng](http://www.icheme.org/discoverchemeng)

# Contents



	Page
Background	3
UN Sustainable Development Goals	4
What you will see on each page for classroom activities	6
Help stop world hunger (SDG 2)	8
Help make life saving medicines (SDG 3)	9
Help provide clean water (SDG 6)	10
Help deliver clean energy (SDG 7)	11
Help reduce, reuse and recycle our waste (SDG 12)	12
Climate action (SDG 13)	14
Challenge; further discussion ideas	15
Work with lots of different people to solve problems (SDG 9) class review	16

# Background



The Institution of Chemical Engineers wants to provide teachers with access to educational and careers resources to showcase the range of career options in chemical engineering.

Chemical engineers play a pivotal role in how we live, working across every industry, across the globe, linking sectors together to help address the United Nations' Sustainable Development Goals (UN SDGs). You can find more information about these goals at [UN SDG Goals](#).

Chemical engineers are committed to finding a more sustainable way of manufacturing the products and services we need to lead healthy, fulfilling and meaningful lives. To meet these goals, we need to encourage more young people to consider a career in chemical engineering.

This pack provides opportunities to support science, maths, citizenship and decision-making parts of the curriculum for school pupils in UK schools, or equivalent, aged between 7 and 11 years.

Serving Society - IChemE  
animation: [How chemical engineers can reimagine the future for everyone](#)



# What are the UN Sustainable Development Goals (SDGs)?



Sustainable development means giving people what they need now, without stopping people in the future having what they need.



The United Nations Sustainable Development Goals (SDGs) are a vision for all our futures and these 17 goals are important both for people and planet Earth.

Everyone should have the right to a certain standard of living, including; healthy food, clean water, places to live and work, clothing, education and healthcare.



<https://www.un.org/sustainabledevelopment/> (2024)

# I want to...



Help stop world hunger



Help make life saving medicines



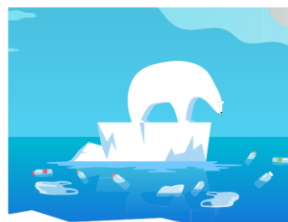
Help provide clean water



Work with lots of different people to solve problems



Help deliver clean energy



Help fight climate change



Help reduce, reuse and recycle our waste



Help make our travel better for the environment

**Chemical engineers** do all of this and more!

[www.icheme.org/discoverchemeng](http://www.icheme.org/discoverchemeng)

# What you will see on each page for classroom activities

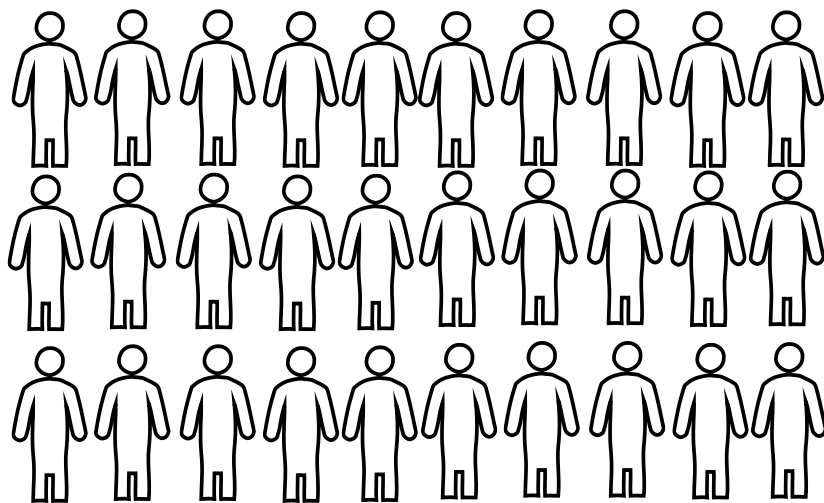
UN  
Sustainable  
Development  
Goal

Describes how chemical engineers work  
towards the SDGs



Visual data to show how many children as a percentage would be impacted in a class of 30.

A separate page showing 30 children may be copied, shared or shown as a prompt to encourage the children to think about percentages as a proportion of the class; for example: 50% = 15 children, or half of the class



Prompt questions to help the children think about and talk about each of the sustainable development goals. Refer to the classroom poster

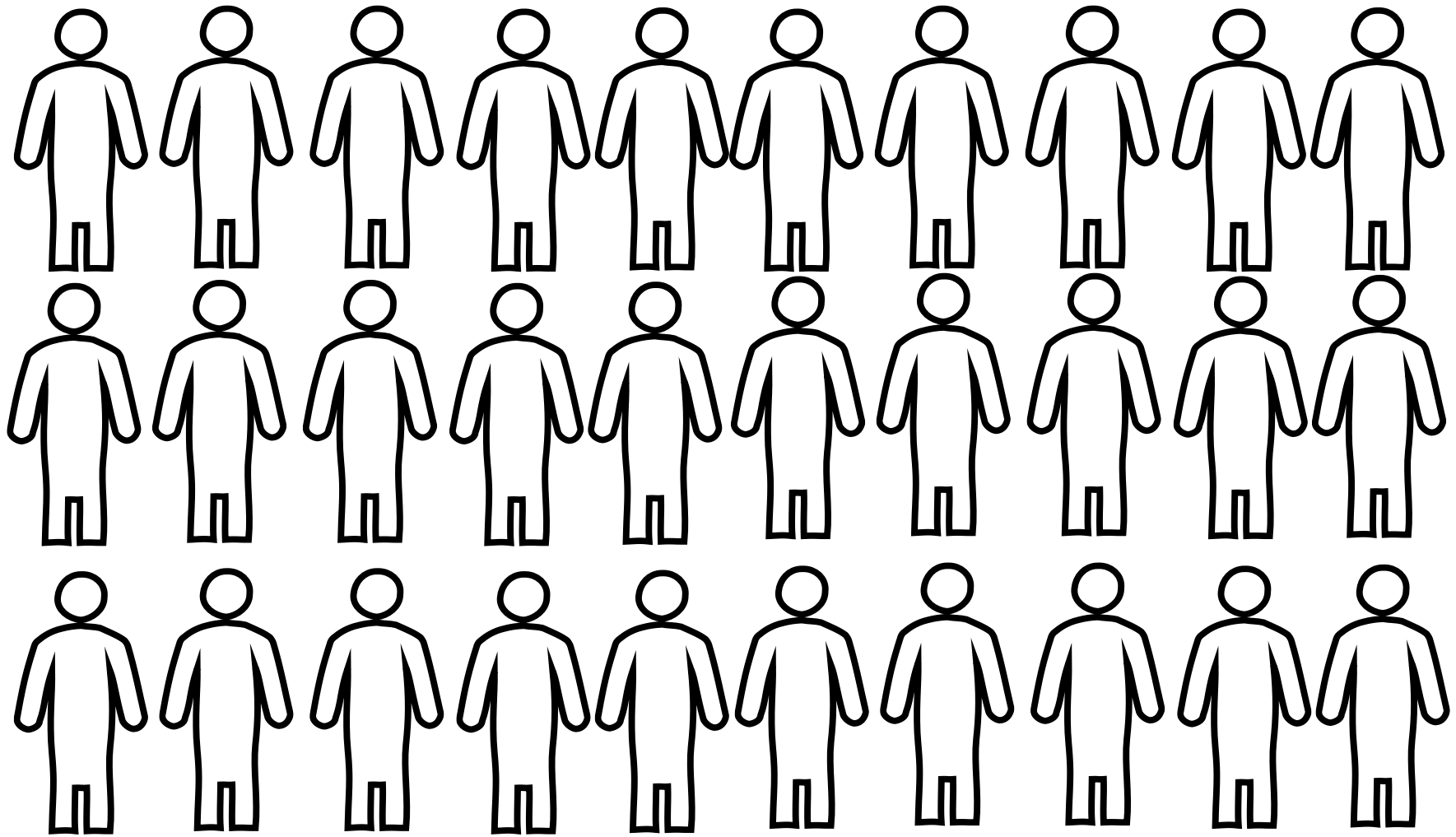
I want to...

	Help stop world hunger		Help make life saving medicines
	Help provide clean water		Work with lots of different people to solve problems
	Help deliver clean energy		Help fight climate change
	Help reduce, reuse and recycle our waste		Help make our travel better for the environment

Chemical engineers do all of this and more!

[www.icheme.org/discoverchemeng](http://www.icheme.org/discoverchemeng)

A class of 30 children

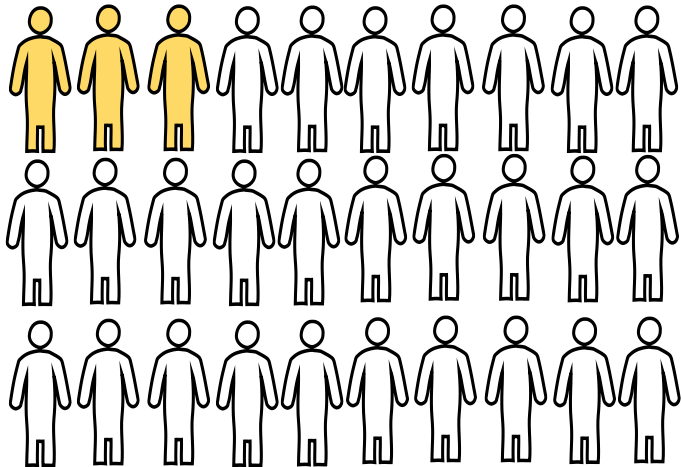


2 ZERO HUNGER



Help stop world hunger

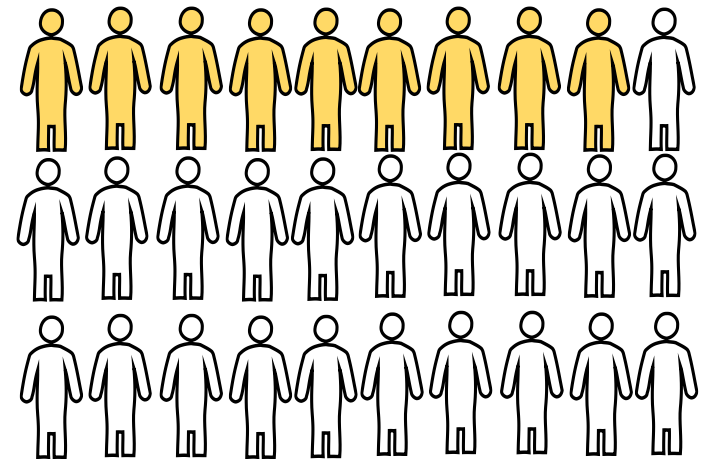
9.2% of the world's population are always hungry.  
Equal to nearly 3 children in a class of 30



How do you feel when you are hungry?

Is hunger only a problem in some countries?

Nearly 30% of the world's population cannot easily get enough food.  
Equal to nearly 9 children in a class of 30





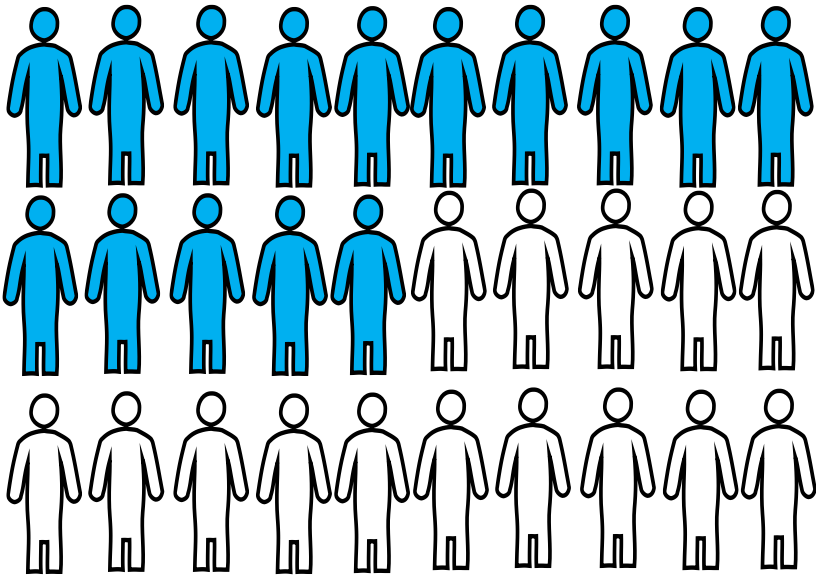
3 GOOD HEALTH AND WELL-BEING



Help make life saving medicines

More than half the world's population is not covered by essential health services.

This is around 50% or equal to 15 children in a class of 30



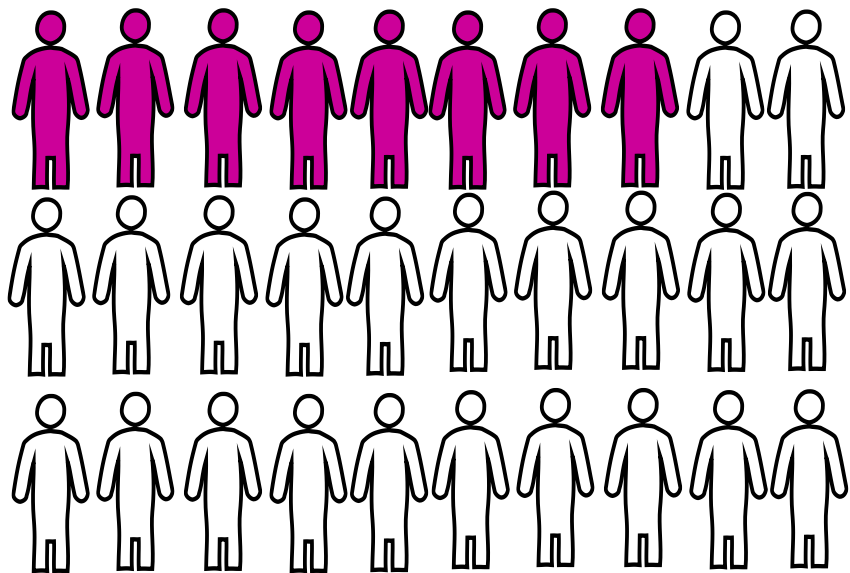
Where do you go for help when you are poorly?

How can people look after their health?



Help provide clean water

27% of the world's population still lack safely managed drinking water. Equal to just over 8 children in a class of 30



What would your day look like without water to drink?

Have you ever been on a trip where you needed to find water to drink, or has your tap ever stopped working?

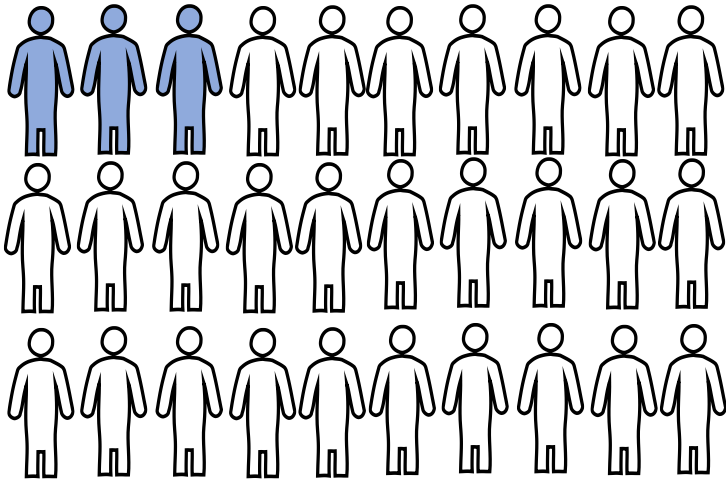
7 AFFORDABLE AND  
CLEAN ENERGY



Help deliver clean  
energy

9% of the world's population cannot  
access electricity. Equal to nearly 3  
children in a class of 30

What would your day look like without  
electricity?



What can you do to use energy more  
efficiently?



Help reduce, reuse and recycle our waste

17% of the world's food was wasted in households, food service and shops, in one year. Estimated as **120** kg of food for each person in the world

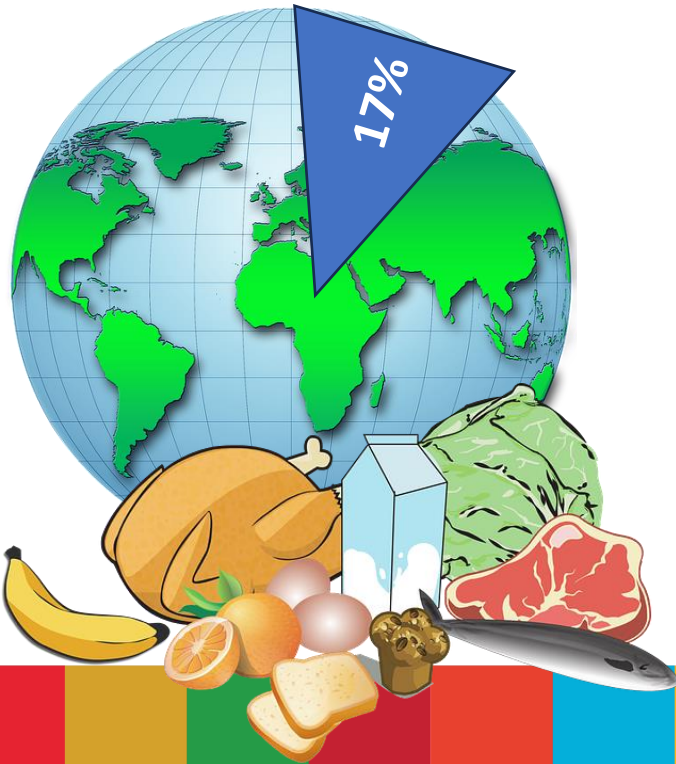
Think about place value for 120

\_\_\_\_\_ hundreds

\_\_\_\_\_ tens      \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_ =

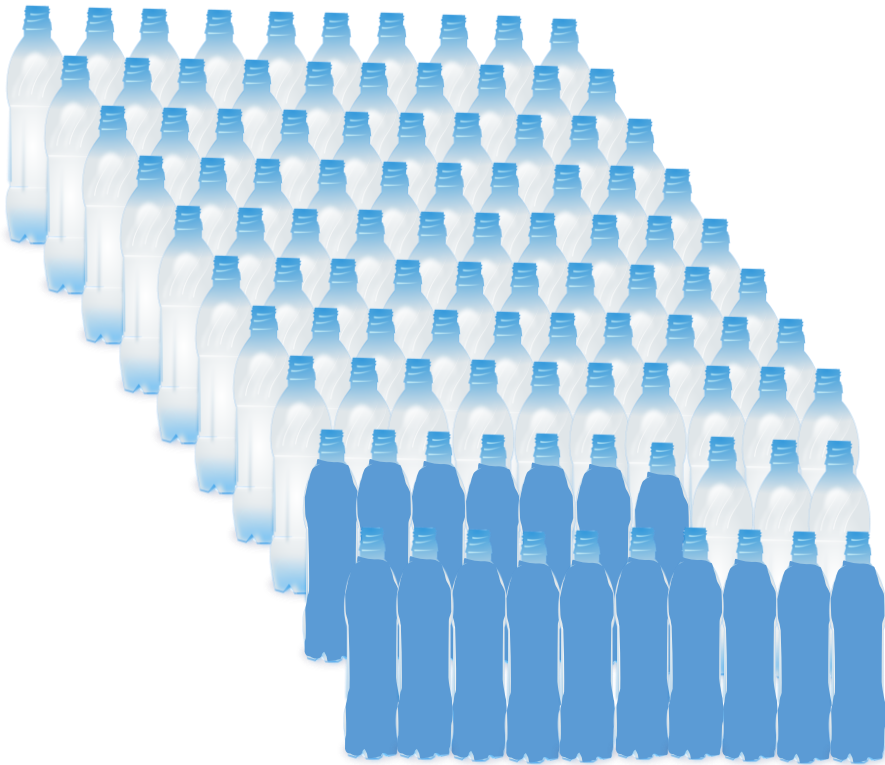
\_\_\_\_\_ ones

How can you reduce food waste?





Help reduce, reuse  
and recycle our  
waste



The Big Plastic Count (2024) found that UK households discard an estimated 90 billion plastic pieces annually, with 17% being recycled in the UK, that's equivalent to only 17 out of these 100 bottles

What would your day look like without plastic?

How can you recycle more?



Help fight climate change

Climate change is caused by global warming. Carbon dioxide is released into the atmosphere when factories and cars burn fuel along with other activities, and this causes the Earth to warm up.



Help make our travel better for the environment

The amount of carbon dioxide produced by your daily activities is called your carbon footprint. Making your carbon footprint smaller helps fight climate change.



What small changes can everyone make to reduce their carbon footprint?  
What other ideas can you think of?



Reduce Reuse Recycle

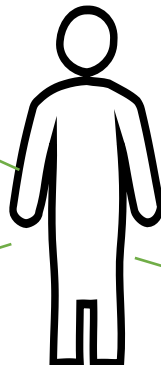
Reduce food waste or grow your own



Change the way you travel



Using less energy at home and school



Challenge

What do you think each of these children need from the Sustainable Development Goals?



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Work with lots of different people to solve problems

Class review

How can people work together?

What can each person or community do?

Of these SDGs, are there any goals that one person can support, and work towards, on their own?

Or our school can work towards?

Or our local community?

Or our country?

Or the world?

