



## Order by Size

Many human activities, such as manufacturing products and driving cars, release **greenhouse gases** that contribute to **climate change** to varying degrees. In this exercise, students are asked to rank a selection of activities according to their annual emissions.

While students practise their multiplication, division, subtraction, and addition skills, this exercise should also help them gain awareness of these activities' relative emissions and **impacts**. Each student should be provided with the handout.

Although the numbers do not correspond to the activities' real annual emissions, they do convey the idea that some activities **pollute more** than others and they also provide a rough indication of each activity's relative impact.

### Answer Key:

1. Flying aeroplanes (2)
2. Getting rid of our rubbish (3)
3. Growing plants for food (5)
4. Making clothes (8)
5. Cutting down trees (10)
6. Driving cars and lorries (12)
7. Making our buildings (17)
8. Raising animals for food (20)
9. Making electricity and heating (30)



Following this exercise, we recommend discussing how these activities contribute to global emissions. We also suggest mentioning that many different people around the world are trying to work out how to adapt these activities so that they have a smaller impact on the climate.

**Growing plants for food** - clearing land (trees suck up and store nasty gases so cutting them down releases these gases again), transporting food (lorries release nasty gases).

**Raising animals for food** - some animals release nasty gases when they fart or burp. Growing food for these animals also releases nasty gases.

**Driving cars and lorries** - cars and lorries burn fuel, which creates nasty gases.

**Making electricity and heating** - by burning fuel to create power for electricity and heating, we create nasty gases.



**Flying aeroplanes** - aeroplanes burn fuel, which releases nasty gases.

**Making clothes** - clothes factories release nasty gases

**Getting rid of rubbish** - using lorries to take rubbish to the dump/landfill releases nasty gases. Then, when our food rots away in the landfill, it too releases nasty gases.

**Cutting down trees** - trees suck up and store nasty gases so cutting them down releases the gases they were storing.

**Making our buildings** - factories used to make the materials for construction release nasty gases as does constructing the buildings themselves.

We welcome feedback and would be delighted to hear your thoughts on this activity. Feel free to send an email to [schools@climatescience.org](mailto:schools@climatescience.org) and we'll be sure to get back to you soon :)

