What’s the carbon footprint of .......?

What is the impact for the planet of every day things that you do and buy? This activity looks at the carbon footprint of nine different products or actions - can you guess which has the highest carbon footprint?

Look at the nine pictures below. Try to put them in an order from the largest carbon footprint to the smallest. Then look at the information on the next page to see if you were right!

A banana

A cheese burger

Driving one mile in a car

A return flight from Manchester, UK to Spain

Taking a shower

A mug of tea with milk

Leaving a light on for one year

A pair of jeans

Using a mobile for 2 minutes a day for 1 year.

The figures used in this activity are taken from the book: How Bad Are Bananas? : The Carbon Footprint of Everything by Mike Berners-Lee.
A banana has a carbon footprint of 80g CO₂. Bananas have lower carbon footprints than some other foods because:
a) they are grown in natural sunlight (not greenhouses)
b) they keep well so can be transported by boat, not by aeroplane
c) there’s hardly any packaging.

A cheeseburger has a carbon footprint of 2.5kg CO₂. Beef and cheese are both carbon intensive as animals use a lot of energy just to keep warm and move around. Cows (and sheep) also produce a lot of methane, a greenhouse gas which is much worse for the environment than CO₂.

Driving one mile in an average car produces 710g CO₂. Small, efficient cars produce much less CO₂ than cars with large engines. You can reduce your carbon footprint by taking the train, bus or a bike instead. Or try to share a car with more people.

A return flight from Manchester in the UK to Majorca, Spain produces 400kg CO₂. Aeroplanes burn a lot of fossil fuels, but the impact is made even worse by the fact that the emissions are released at high altitude. It’s not just flying abroad on holiday or business that we need to reduce, but also the amount of food that is imported by air.

Taking a shower produces 500g CO₂. This is based on spending 6 minutes in a typical electric shower. The footprint would be the same for a bath if you didn’t fill it right up and it was heated by an efficient gas boiler. Gas boilers are generally more efficient at providing heat than electricity, which keeps the carbon footprint lower.

A mug of tea with milk has a carbon footprint of 53g CO₂. If you didn’t put milk in the tea, the carbon footprint would be less than half - 21g CO₂. Milk has a relatively high footprint (723g CO₂ per pint). If, like many people, you boil more water than you need, this can waste another 20g CO₂ per drink!

Leaving a light on for one year produces 500kg CO₂. This is for a 100 watt incandescent bulb (like the one in the picture). A low energy bulb uses about 1/5 of the electricity and so if left on for a year, would produce 90kg CO₂. Since 2009 it has been illegal to sell 100w incandescent bulbs in the UK.

A pair of jeans has a carbon footprint of 6kg CO₂. In the UK, clothing and textiles make up on average 2% of a person’s carbon footprint. You can reduce this by buying clothes that are easy to wash and dry, buying clothes that will last, buying second-hand and donating or recycling them when you have finished with them.

Using a mobile for 2 minutes a day for one year produces 47kg CO₂. The carbon emissions come from manufacturing the phone (estimated at 16kg CO₂), the electricity used to charge it and the energy needed to transmit your calls across the network.