



EfW Maths Worksheet

Answer Sheet

This sheet is designed as a follow-up activity to a school trip to Exeter or Plymouth Energy from Waste plant. Download the Questions at: <https://zone.recycledevon.org/energy-from-waste-maths>

Word Problems

1.
 - a) $5 \times 6.5 = 32.5$ tonnes
 - b) $2 \times 5 = 10$ loads
Total amount of waste = $10 \times 32.5 = 325$ tonnes
From 1500 homes so $325/1500 = 0.22$ tonnes per home
 - c) If it rains the rubbish could get wet and could get heavier. This would mean the rubbish trucks would need to unload more often, so the round would take longer.

2.
 - a) $850 \text{ kg} = 0.85$ tonnes
 - b) $0.75 + 0.9 + 1.1 + 1.25 + 0.8 + 1 + 1.2 + 1 = 8$
 - c) 192 tonnes
 - d) 80°C more than 850°C

Data Interpretation

1. 56806 tonnes of waste
2. 51012 tonnes of CO_2
3. Average proportion is 1:0.9

Estimation

Answers could vary between 4000 & 4500. The average is actually 4251.

Statistics

1. $4733.83 =$ mean weight of waste treated
2. September is the closest month, with 22 tonnes more waste than average.

Fractions and Percentages

1. 12 tonnes
2.
 - a) 30 tonnes
 - b) $30 \times 365 = 10950$ tonnes of food waste per year