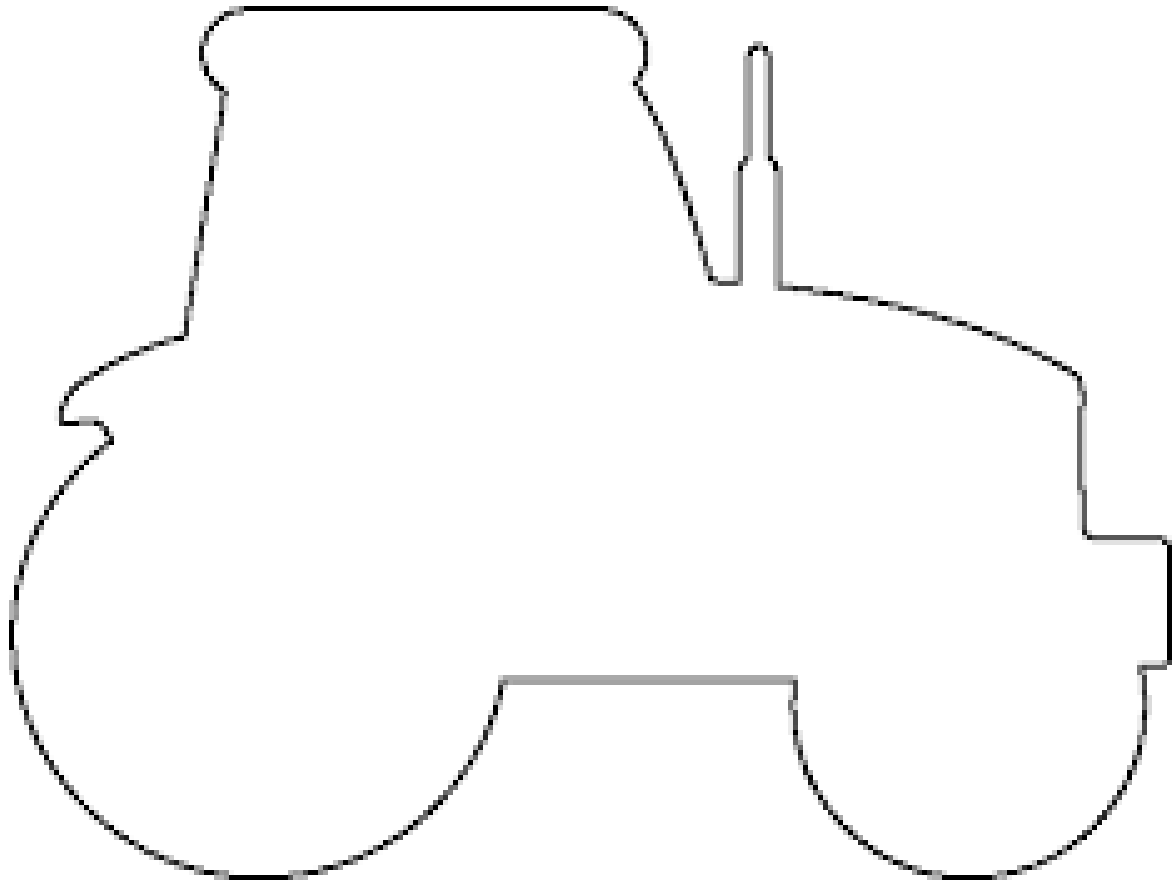


Farm Facts: Tractors

Have you watched Sam's video and listened to his five interesting facts about tractors? Continue your learning here with some fun activities to try in the classroom or at home.

Activity 1:

In your own words, write down each of the 5 facts Sam gave you on the video. Copy, trace or print the tractor outline below and write your facts in the blank space. Perhaps you could cut them out and stick them into a scrapbook, or display them on a noticeboard or the fridge?



Activity 2: Recycled Machines

Can you produce a tractor, using only recycled household materials? Think about what materials would work well for which parts – for example, bottle tops would work well as tractor wheels because they are round, strong and have grip. Remember to think about Sam’s facts and try to include all the components he told you were important.

We would love to see your creations, so please send a photo to tattoneducation@cheshireeast.gov.uk

Activity 3: Horsepower

Horsepower is a unit of measurement that we use to explain the rate at which a machine can do its work. When steam engines were invented, they provided an efficient alternative to horses pulling equipment. A unit of horsepower is the amount of work one horse can do every second and engine power is measured against this, to make sure it is performing as well as, or better than, the horse would have. This is why the name ‘horsepower’ was given.

Can you solve these tricky puzzles about horsepower? You might need a calculator to help along the way! You will find the answers at the bottom of the page.

- 1) A horse can pull 550lbs of weight every second. What is this weight in kilograms? HINT: 1kg is the same as 2.2lbs.
- 2) A horse can pull 550lbs of weight every second and in that time, it can move 1 foot in length. 1 foot is the same as 0.3m. How long would it take the horse to move the weight 30m?
- 3) If a tractor has 435 horsepower, how many kilograms of weight can it pull? HINT: Use the kilogram figure you got from question 1.

Answers:
1) Method: $550 \div 2.2 = 250\text{kg}$
2) Method: 0.3m takes 1 second, 30m takes 100 seconds – there are 60 seconds in a minute = 1 minute 40 seconds
3) Method: 1 horsepower pulls 250kg of weight, 250kg x 435 = 108,750kg

