

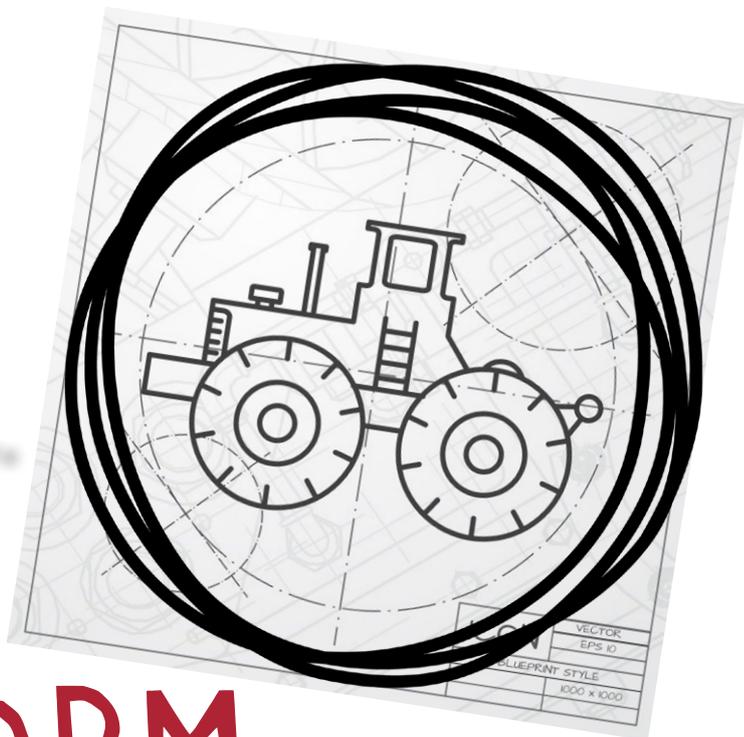


TRANSFORM-A-TRACTOR! DESIGN COMPETITION FOR KS2 PUPILS

Organised by 'Suffolk Agricultural Association'
in association with 'Cook with me Kids'



www.suffolkshow.co.uk



TRANSFORM A TRACTOR!

We are delighted to invite KS2 pupils to take part in our exciting 'Transform-a-Tractor' competition 2017. Learn about the history of farm machinery and agriculture in our county. Use your imagination and **DESIGN A FUTURISTIC TRACTOR TO WIN** the prestigious 'Suffolk Farming School Of The Year' award for your school!



THE COMPETITION...

Use your imagination to design and build the tractor of the future! Design a free standing tractor from recycled food packaging no larger than 80cm x 80cm. Your tractor must have a job on the farm! Use the info pages in this pack for inspiration and work as a team to see if you can create a useful tractor of the future!

Your class has the opportunity to excel in this fun, hands-on learning competition. Agriculture dovetails into many areas of the National Curriculum and the Suffolk Farming School of the Year competition gives you a chance to bring agriculture into your classroom.

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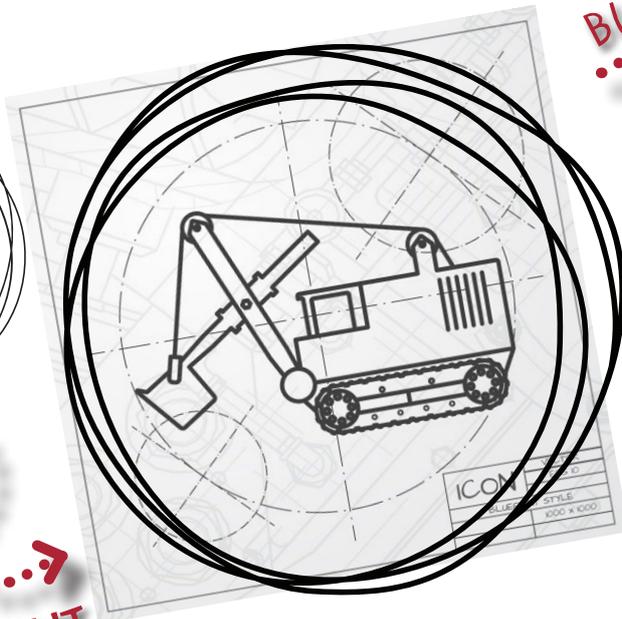
Intro

GET INVOLVED

Can you design a tractor of the future? Get inspired by farming and create free standing tractor from recycled food packaging no larger than 80cm x 80cm. Your tractor must show creativity, imagination and flair! How is it powered? Is it robotic, carbon neutral or powered by chicken poo? Will it have 6 or 8 wheels or will it be a tractor, hover craft style? Could your tractor design help shape the future of farming?



DESIGN IT



BUILD IT



COMPETE...AND WIN!

All tractor models will be judged by farmers and the top five schools will go forward to the semi-final which will take place on 9th May 2017 at Trinity Park (transport costs will be paid for in full by the SAA). At the semi-final, children will experience a day of interactive workshops including cookery, art, meeting farmers and an opportunity to see the machinery and technology that shapes farming in Suffolk. Pupils will be assessed on their knowledge, team work and enthusiasm with the top three schools going through to the final on the 1st June 2017. Don't miss out!!



2

Intro

MORE INFO...

The Suffolk Agricultural Association (organisers of the Suffolk Show and the School Farm and Country Fair) is a registered charity that promotes agriculture and rural related industries. The Suffolk Farming School of the Year was launched in 2013 in conjunction with 'Cook with me Kids', a not for profit organisation, working with schools and groups to help teach children the importance of real food and its provenance.

DATES FOR YOUR DIARY:

9 December 2016: All school entry forms must be submitted. Please see page 12 of this brochure for the form.

w/c 27 March 2017: All finished models must be labelled and ready for collection. We may ask you to deliver your model to the collection point nearest to you.

9 May 2017: If selected, your class must be available to attend the workshop day.

1 June 2017: The final three schools will be required to send a small selection of pupils to the Suffolk Show (during half term week).

SEN INFO FOR SCHOOLS:

Schools listed as SEN, will enter into their own class in round 1 and all SEN Schools will have their models judged together. A minimum of one school from this group will be chosen to go through to the semi-final, where they will compete against all schools.

Cook With Me Kids and the SAA will endeavour to ensure that any additional support needs are addressed for the workshop day and final.



We have found the children develop their ability to work as a team whilst learning about different aspects of farming. They increase their confidence in public speaking and, whatever their ability, they can excel in this very well run and exciting competition!



Sandy Rowe, Teacher,
Saxmundham Primary School
(Double competition winners)



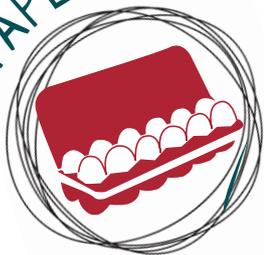
Info & dates



DESIGN & BUILD

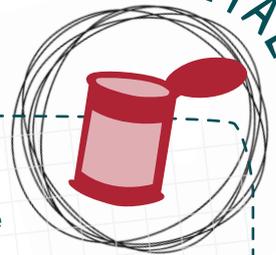
Get inspired by farming and create free standing tractor from recycled food packaging, no larger than 80cm x 80cm. Check out our ideas for using everyday recycled packaging for your model.

PAPER



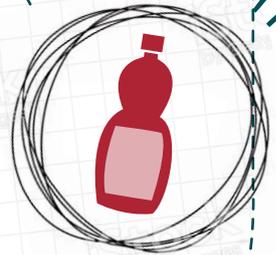
Your tractor could be constructed from recycled boxes pinned together with glue. Try using egg trays, paper bags and card tubes and collect old newspapers and magazines for a papier mache tractor!

METAL



Metal is a harder material to work with and mould but will achieve some effective results. Collect tin cans, milk and yoghurt tops, drink cans and crisp wrappers to add some extra shine! Be careful of any sharp edges!

PLASTIC



Plastic is a sturdy and waterproof material that will not disintegrate. You will be surprised how easy it is to collect everyday plastic food packaging such as yoghurt pots, drink bottles and plastic wrappers.

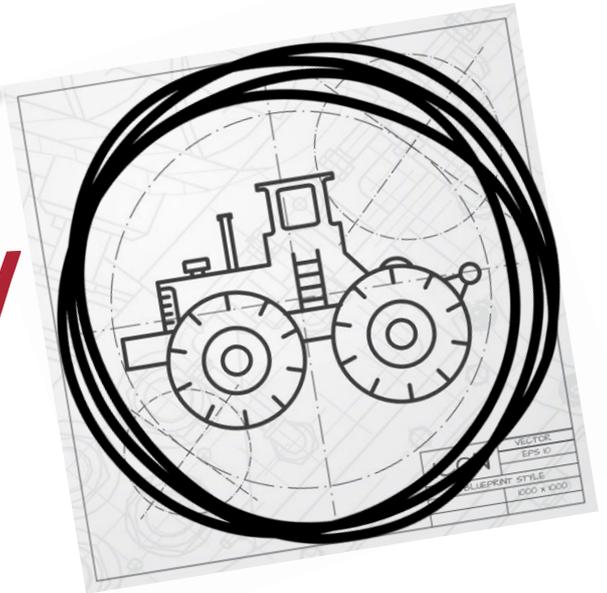
POLYSTYRENE



Many foods come packaged in polystyrene to prevent them from being damaged. Look out for apple trays, coffee cups and fast food trays to add to your recycled food packaging collection.



MACHINERY TIMELINE



Take inspiration from the machinery of the past and present for your design. Use this timeline to learn about the history of farm machinery and how new technologies and designs have shaped farming of today.



For centuries, farmers worked the fields with horse or ox-drawn ploughs, hand-tools for planting and reaping. About five hundred years ago, it would take almost two days to plough a hectare of land using oxen.



The modern tractor was developed from steam-powered traction engines during the 1850s. With the introduction of petrol engines in the 1880s, it wasn't long before tractors using the new petrol driven engines appeared around 1889.



The basic design of the tractor hasn't altered much since the early 1900s. The two large rear wheels provide traction, or grip, while the two smaller wheels provide steering. During the 1930s a system of linkages and hydraulic controls were developed that turned the tractor into a very versatile machine.

5

History

FARMING SEASONS

Learn more about the year round process of farming so that you can identify which tasks are already mechanised and which could be in the future...this will help you with your final tractor design!



SPRING is a season for ploughing, sowing seeds and spreading fertiliser on the soil. It's a very busy time for everyone involved in farming. The farmer uses the tractor to help prepare the soil, sow the seeds, fertilise, spray the crop to ensure they are healthy so they grow properly.



SUMMER months are the busiest time of the year for the tractor. The tractor is involved in lots of important jobs such as cutting hay, helping the combine harvester to gather the crop, trimming hedges and verges, spreading manure and generally making itself a really useful machine!



AUTUMN months mean that although the combine harvester has been busy and the straw bales are safely stored away, there's still plenty of work for the tractor to do. It's time to sow rye and wheat, fertilise the fields and plough some fields before winter.



WINTER may be cold and the snow covers the ground but the tractor is still busy on the farm. There's so many things to do before Spring such as mending fences, clearing ditches, cutting dead branches from trees.

FARMING FUTURES

Take a look at some of the types of tractor attachments that are used on a farm today for inspiration. On the next page, design your tractor model with some imaginative and futuristic features...



PLOUGH: The farmer uses a tractor and plough to cut and turn the soil before planting a crop. The plough's steel blades dig deep into the soil and turn it over, leaving long grooves called burrows.

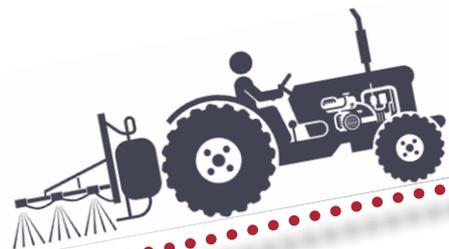


CULTIVATOR: A tractor with an attached cultivator is used to stir and condition soil either before planting to get air into the soil and make the ground smooth; or after the crop has begun growing to remove unwanted seeds and ventilate the ground.

FERTILISER SPREADER: A tractor with a fertiliser spreader is used to spread the fertiliser in the field. Fertiliser feeds the soil, helping plants to grow quicker and healthily.



Ideas



YOUR IDEAS...



REMEMBER: You need to design a free standing tractor from recycled food packaging no larger than 80cm x 80cm. Your tractor must have a job on the farm! Use the pages in this pack for inspiration and work as a team to see if you can create a useful tractor of the future..!

USEFUL WEBSITES...

www.suffolkshow.co.uk/education
www.face-online.org.uk
www.farmingismagic.co.uk
www.countrysideclassroom.org.uk
www.whyfarmingmatters.co.uk



Ideas

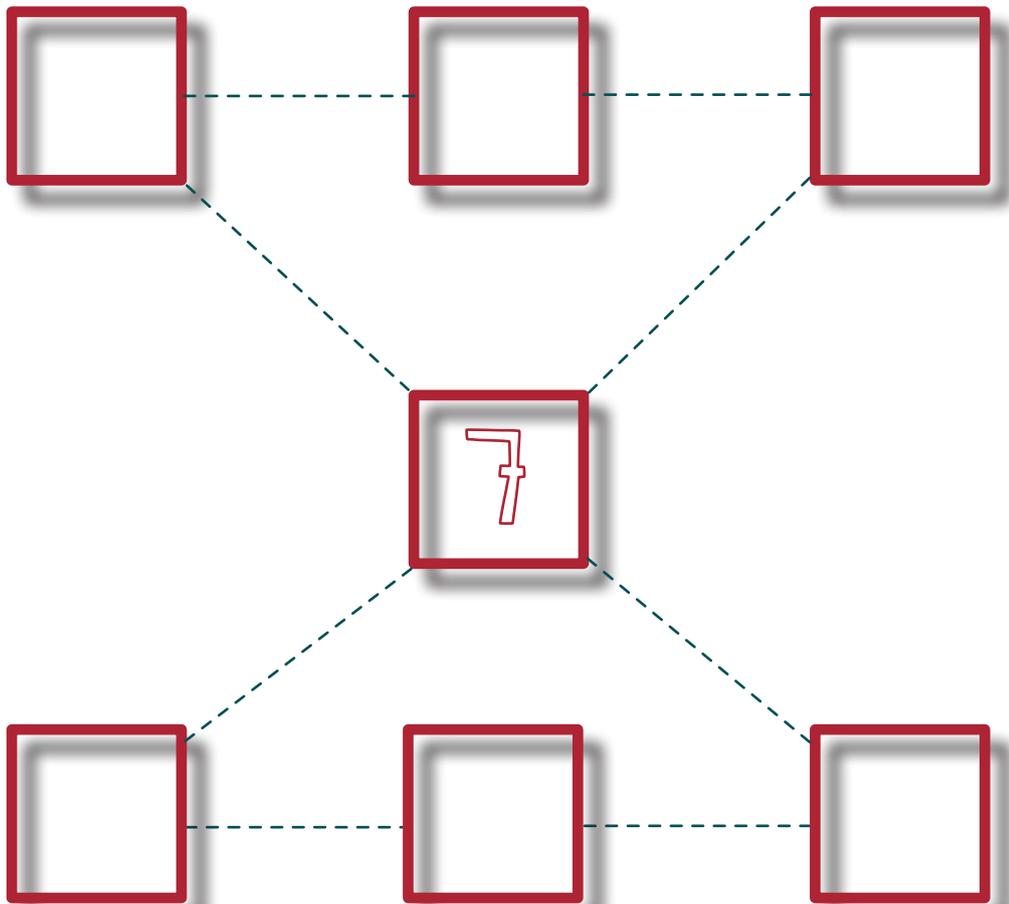
Check out the fun farming quizzes on the next two pages to help you learn...



CLASSROOM QUIZ

THE PLOUGHING PUZZLE...

The farmer has a large field to plough. To make the job a bit easier, he wants to divide the field into seven rectangles so that whichever way he ploughs the total will always be the same. All you need to do is to fill in the blank rectangles using the numbers 1 - 3 - 5 - 9 - 11 - 13, so that all the rows (horizontally, vertically and diagonally) will add to 21. You can only use each number once!



CLASSROOM QUIZ

THE JOB LIST...

Now that the farmer has sorted out the parts for his tractor he can tackle all the jobs on his list. There's just one little problem. . . he can't remember in which order the jobs have to be done. Can you help him? Rearrange the jobs below into the order that you think the farmer should do them.

The jumbled list:

- 1 Spread fertiliser
- 2 Put the tractor in the barn
- 3 Plant seeds
- 4 Plough the field
- 5 Have a cup of tea
- 6 Harrow the field (a harrow is a tool used to smooth soil over the seeds)
- 7 Switch the tractor engine on

Your list:

- 1
- 2
- 3
- 4
- 5
- 6
- 7



CONTACT:

For more information please contact
Helen Fomenko
(Show & Education Officer).

Suffolk Agricultural Association
Trinity Park
Felixstowe Road
Ipswich
Suffolk
IP3 8UH

(T) 01473 707124
(F) 01473 707120
(E) helen.fomenko@suffolkshow.co.uk

FINAL DETAILS:

Please fill in the tag (as shown on the right), cut out and attach to your model. Please ensure that labels are laminated and that your model is appropriately packaged for transportation!

REMEMBER:

Your tractor must be freestanding and no larger than 80cm x 80cm. It needs to be well put together and be of a sturdy nature as it will be moved around a lot.

ATTACH TO
YOUR MODEL



School name:
.....

Address & postcode:
.....

Tel number:
.....

Email:
.....

Contact name:
.....

How many pupils worked on your tractor model?:
.....



Contact & Info

ENTRY FORM:

We would like to take part in the 2017 Suffolk Farming School of the Year Competition...

School name:

.....

Address & postcode:

.....

Tel number:

.....

Email:

.....

Contact name:

.....

Special educational needs and/or disabilities?

NB: Please photocopy this sheet for your reference.

Please return this form by 9 December 2016 to:

Helen Fomenko (Show & Education Officer)

Suffolk Agricultural Association, Trinity Park, Felixstowe Road, Ipswich, Suffolk IP3 8UH.

(E) helen.fomenko@suffolkshow.co.uk

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Entry Form