

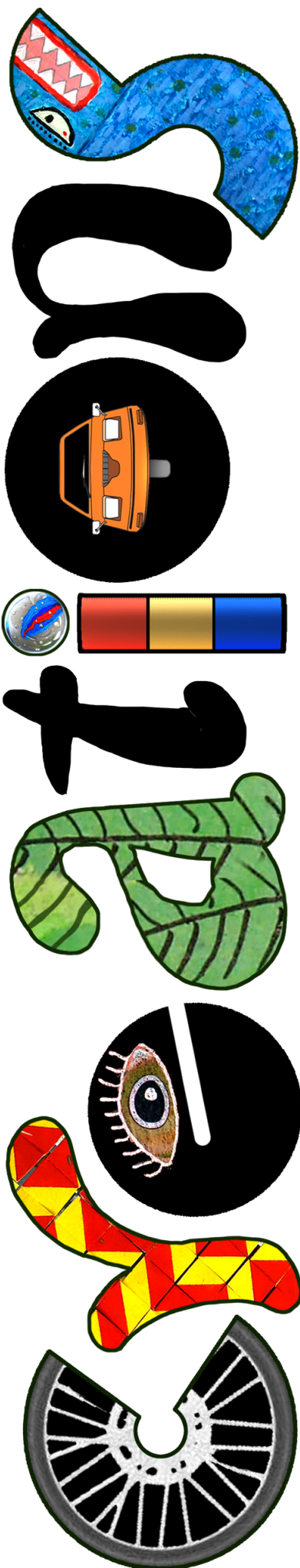


**TOM
KAREN**

Future Designers

Letchworth
Garden City
Heritage Foundation

Teaching resources for **Key Stage 1**
and **Key Stage 2** which focus on car
design with links to local history figure
Tom Karen.



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Find out more:

www.discover-lethworth.com/tom-karen-creations

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Introduction

In Summer 2022, the Letchworth Garden City Heritage Foundation (LGCHF) displayed 'Tom Karen: Creations' at the Museum at One Garden City. This wonderful exhibition celebrated the life and work of designer Tom Karen. Tom was known for his iconic vehicle designs including the Bond Bug, Reliant Scimitar GTE and the Raleigh Chopper bicycle, as well as his toys, like Marble Run and Ogle Mogles.

Honouring Tom's legacy, the Cultural Learning team at the Foundation partnered with Pixmore Junior School to co-create cross-curricular teaching resources inspired by his work. Alex Evans, Head Teacher at Pixmore, volunteered to research and develop the resources which were the basis of the project, supported by Mollie Mclellan, Cultural Learning Officer for the Foundation.

Thank you:

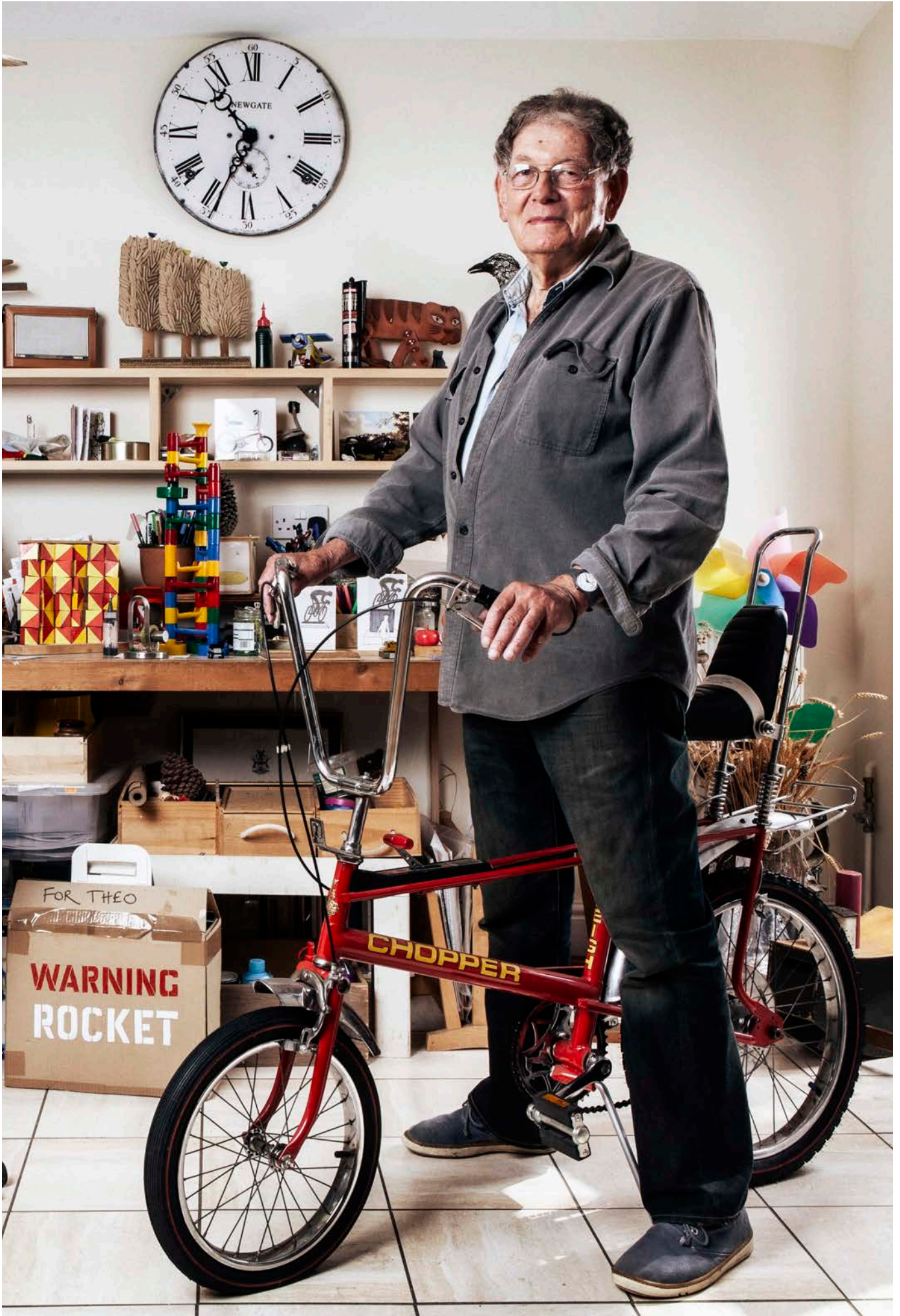
This project would not have been possible without support from our funders, SHARE Museums East and Hertfordshire Association of Museums, or Alex Evans, Head Teacher at Pixmore Junior School.

Alex Evans volunteered her time to help create these resources, assisting in the writing and delivery of this work. Thank you Alex for championing our work and being our partner throughout the process.

Delivering the project over the Autumn Term 2022 and Spring Term 2023, the team continued to learn from the students' experience how the project could evolve. Student's visited the Museum and used the facilities at the Broadway Gallery to begin designing their own vehicles. Once complete, the students works were then installed within the existing 'Tom Karen: Creations' exhibition.

To enable other schools to get involved, the team have collated resources including an interactive virtual scan of the 'Tom Karen: Creations' exhibition, educational videos for KS1, KS2 and KS3, lesson plans and worksheets.

The Foundation hope to continue co-devising work like this with Letchworth Garden City schools to support the delivery of arts and cultural activity.



Who is Tom Karen?

Josh tidy

Thomas Joseph Derrick Paul Kohn was born on 20th March 1926 in Vienna, Austria, and grew up in a large house known as Kohn Villa in the Czech city of Brno. His maternal grandfather was the famous painter Arthur Von Ferraris, while his paternal great-grandfather was the founder of a successful brickworks. A cement works was added by his paternal grandfather, and the plant became the largest in Czechoslovakia, employing 500 people and supplying the family with considerable wealth.

While the family did not practice Judaism, Kohn was a Jewish surname, and the Kohns fled Brno five days before Tom's 13th birthday in 1939 as the Nazis began to invade Czechoslovakia. Tom's father was arrested by the Gestapo, but was released a few days later and escaped to the UK through Poland and Sweden.

Meanwhile, Tom, his mother, his older brother Felix, and his younger sister Bettina, travelled through Prague to Belgium, and found refuge for two years in the South of France. They then travelled through Spain and Portugal to reach the UK in 1942, when Tom was 16.

Between 1942 and 1945 he studied aeronautical engineering at Loughborough College, and when his family return to Czechoslovakia in an attempt to recover their belongings,

Tom found work with Hunting Percival, an aircraft manufacturer based in Luton. Upon becoming a British citizen in 1948, Tom changed his surname from Kohn to Karen. He then worked as a technical illustrator for the Air Registration Board in Croydon, and moved to Chipstead in Surrey.

While there, he designed and built sets for the amateur dramatics group, the Chipstead Players, helped the young people with their productions, joined a pottery class, and discovered his love for creating things.

In 1955, after receiving some compensation for his family's lost wealth in Czechoslovakia, Tom enrolled at the Central School of Arts and Crafts to study industrial design. Less than a year later, he was recruited by Ford to work in their Design Studio in Dagenham. He worked on the design of small car parts – shelves for glove boxes and badges for car fronts – but he had bigger ambitions.

In 1958, he won the annual design competition held by the Institute of British Carriage and Automobile Manufacturers with his own design for a car, the Rascal. He left Ford the next year to join David Ogle Associates, which was then still a small one in Stevenage.

However, now married and living in London, Tom wanted to work closer to home, and so became a designer of white goods, first for Hotpoint and then for Philips.

In 1962, David Ogle was killed in a car crash, and Ogle's senior director, John Ogier, asked Tom to take over as managing director and chief designer at David Ogle Associates, which had recently moved to Letchworth.

Within the year, Tom and his wife had moved to Ashwell, and Tom recruited Christopher Pepper, a fellow former member of the Chipstead Players, to become Ogle's director in charge of administration and finance.

Both Christopher and Tom remained with Ogle for the rest of their working lives.

This exhibition explores some of the highlights of Tom's career, and some of the wider Ogle team's chief successes during his time there, and also capture some of his invention and charm, especially in his more recent creations.

Tom sadly passed away, aged 96, on December 31st 2022. He remained to his final days curious, inventive and still keen to change the world through good design. May he rest in peace.

The Bondbug

Josh tidy

After Reliant Motors bought Bond Cars in 1969, they asked Tom Karen to revisit one of his earlier designs for a car called the Reliant Rogue.

From this he created the Bond Bug which, like the Raleigh Chopper, was made for a younger audience, and had been ‘chopped’ together from parts of various Reliant cars. Their designs had similarities, too. Both had low seats, and the wheels of the Bond Bug were again a defining feature.

But this time, it wasn’t because of their size, but because of their number – there were only three!



The three-wheeled Bond Bug was a micro car (perfect for our micro-museum!) that came only in bright orange, and had a top speed of 76mph.

The Bug launched in June 1970, in the grounds of Woburn Abbey in Bedfordshire.

‘One enthusiast described it as ‘like your own private aircraft’’

Production ceased in 1974 with only 2,268 of them having been made.

NB: Thank you to automotive photography specialists, Supercharged Photography, for the contemporary photographs in these Bond Bug displays.

See more of their excellent work, and find out how to commission them, here: www.superchargedphotography.co.uk

Reliant Scimitar

Josh tidy



At the Earl's Court Motor Show in 1962, the Ogle SX250 was launched. David Ogle had been commissioned by Boris Forster, a director of a cosmetics company, to design a body to fit on the chassis of a Daimler SP250. After Ogle's death, the project was completed by Tom Karen. Though the SX250 was never commercially produced, it caught the attention of Ray Wiggin, the Assistant General Manager, and later Managing Director, of Reliant Motors.

Wiggin commissioned Karen to remodel the body to fit the Reliant Sabre, a sports car launched in 1961 that had been a commercial failure. This was Ogle Design's first commissioned work for a car designer, and the Reliant Scimitar GT SE4 Coupe was widely praised upon its launch at the 1964 Motor Show.

In 1965, Triplex commissioned a version of the SE4, dubbed the Scimitar GTS (Glass Top Special), to show off their new safety glass products at that year's Motor Show. This car was covered in a total of 43 square feet of glass, but its true innovation was the estate-type passenger cell added by Tom Karen, which made the GTS the first hybrid of sports car and estate car.

In 1967, Wiggins asked Karen to produce the GTS for the

general market, adding more room for luggage and passengers.

During the production process, Tom had a half-size model produced, split down the middle to show two possible designs.

On the right, the ceiling was simply lifted at the back of the car to give more vertical space in the boot.

On the left, however, Karen had added an estate car body, and a 'waistline' that rose all the way to the back.

Wiggin chose the left side, and the Reliant Scimitar GTE (SE5) was launched to the public in August 1968.

While rising waistlines are now commonplace, it was a revolutionary design feature at the time. Other innovations introduced by the Scimitar GTE were backseats that could be folded down together or separately, and, after 1969, windscreen wipers on the rear window.

The Reliant Scimitar also had the royal seal of approval – it was Prince Philip who bought the GTS and used it as his personal car for two years, while Princess Anne received a GTE from her parents as a joint 20th birthday and Christmas present in 1970. She went on to own a further eight Scimitar GTEs.



Popemobile

Josh tidy

One of the more unusual design assignments Ogle took on was the design of two new Popemobiles, for the visit of Pope John Paul II to the UK in 1982.

They were the first Popemobiles to be armoured, and use bullet-proof glass, following an assassination attempt on the Pope the previous year.

Two of each model were produced – one huge truck, with an Ogle-designed cab on top of a Leyland T45 Truck, and one based on a Range Rover, photographed here outside the Ogle factory.

Tom later said, “I think he took one of the Range Rovers back with him to Rome. I have seen Pope Mobiles since then and none of them seem to be as elegant as our Pope Mobile. It was very nice.”

The Raleigh Chopper

Josh tidy

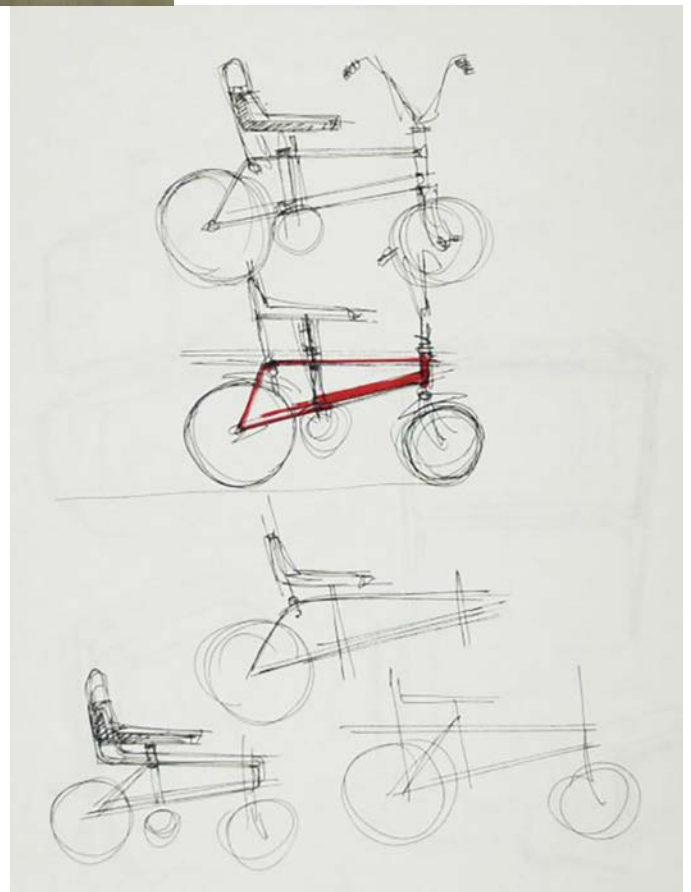


Tom Karen designed the 'Chopper' bike for Raleigh in 1966. They wanted to create a bicycle for children that would rival the Schwinn Sting-Ray in the US market in 1963.

The name 'chopper' comes from the practice of 'chopping' motorcycles that was popular throughout the 1960s. Motorcycles were modified with paints and parts from other motorcycles, and soon kids were inspired to make their own 'choppers' by customising their bicycles.

Many of these 'chopped' or 'chopper' bikes looked similar – a low seat, high handlebars, and large tyres. Karen included these features in his own 'chopper', but added a few of his own to create his iconic design. One of the new features Tom added was the large tyre in the back, with a smaller one in the front, to give a feeling of power moving through the bike. Another new feature was the kickstand. When the bike was stationary, the bike could stand by itself, leaning slightly to one side like the motorcycles that originally inspired it.

It is worth noting that Raleigh's Head Designer, Alan Oakley, also claims to have been the designer of the Chopper, leading to some division amongst fans of this design icon. Tom certainly readily acknowledges the work of the team at Raleigh in developing the concept to final production, and in coining that name, but the Design Council has recognised Tom Karen as its designer, and his sketches clearly show his original idea.



Before you Start

This project mainly focuses on Design Technology but also supports the curriculum for Science, Maths, History and Literacy as well as supporting their learning for life.

Specialist equipment to prepare:

- Car build craft materials
- Collect recycled drink bottles and 4 lids per child
- Buy wooden dowels, straws and Blu Tack
- Cut dowel to size and make holes in bottle lids

Before starting the project, tell the children their task of a building a car for the future.

They will design the car themselves and build a prototype with electric controls.

At the end they will race their cars, seeing who's is the fastest.



Lesson Plans: KS1

Week 1

Learning Objectives:

1. To carry out research to develop design criteria
2. To understand what a designer does to create toys. Analyse existing products to aid design

Tasks

Tell the children we are going to have a task of being a designer and make a toy car for a child from recyclable materials.

We will be looking at using some ideas and inspiration from a designer called Tom Karen.

Use resources and video to focus on the toys that Tom Karen made:

- Talk about what Tom did a designer
- What did he build his toys from?
- Who were the toys made for?
- What kind of cars/vehicles could we make?

Use the video links and slides to discuss how the wheels in a car work (fixed wheels on moving axle or fixed axle and moving wheels).

- Watch the simple toy car video
- Draw and design a toy car.
- Look at resources and power point of Tom Karen and video

Resources

Powerpoint

Key Vocabulary:

- Body
- Axle
- Wheels

What is an axle and how they are essential in all vehicles, from bicycles to trains:

www.bbc.co.uk/teach/class-clips-video/design-and-technology-ks2-axles/zmhfvk7

Lesson Plans: KS1

Week 2

Learning Objectives:

1. To create a mood board to gather ideas for a new product (Outside shape focus)
2. iPads or Computers

| Tasks | Resources |
|---|---|
| Recap - What is the purpose? Being designers like Tom Karen, ask the students to put their ideas down on a picture board. Using pictures from magazines/ catalogues choose some toy vehicles that you would like your vehicle to look like. What colours would you use? | iPads Or <ul style="list-style-type: none">• Toy catalogue/toy car print outs• Glue• Scissors Link to science, reducing air resistance |



Lesson Plans: KS1

Week 3

2 ACTIVITIES

Learning Objectives:

1. To plan the steps to make their design
2. To be able to mark and cut accurately using a junior hacksaw
3. To use precision in assembly of a product to make a sturdy structure

| Tasks | Resources |
|--|--|
| <p>Think about how they will construct the car and gather resources. Selection of plastic bottles lids, straws, Sellotape, glue.</p> <p>Think about instructions and steps they need to take to build the toy car.</p> <p>Children to use their designs – how could we change the look of the car – use of cardboard paper/paint.</p> <p>Explain that the children will need to make the body the toy vehicle and that one way to do this is to use recyclable materials. Show how to use straw and Sellotape to make the axles on a bottle - Practice getting them straight otherwise the vehicle will not run straight.</p> <p>Use of ruler to check – helping each other.</p> <p>Use of scissors.</p> <p>Cut the wooden dowels and make a simple frame as in the video and explain that in this lesson they will learn how to do this.</p> <p>Demonstrate activity going over safety rules then children make their own in pairs.</p> | <p>Video</p> <p>KS1 Car Axels (instructions) printout</p> <ul style="list-style-type: none">• Strips of wooden dowel (cut to 12cm)• PVA glue• Sellotape• Straws• Plastic bottles• Bottle lids (with dowel-sized hole in centre)• Rulers• Pencils• Cardboard• Paper <p>Can reference TKC video – Tom uses recycled materials to make his birds</p> <p>Maths link - measuring with a ruler. Sorting skills, correct number of wheels and lids</p> <p>www.bbc.co.uk/teach/class-clips-video/design-and-technology-ks2-axles/zmhfvk7</p> |

Lesson Plans: KS1

Week 4

2 ACTIVITIES

Learning Objectives:

1. To create a detailed final design which can be used to aid construction of their new toy.
2. To be able to mark and cut accurately with scissors

Tasks

Continue Week 3 as above if needed.

Explain that the children will need to make a chassis for the toy vehicle and that one way to do this is to make a simple wooden frame and that in this lesson they will learn how to do this.

Demonstrate activity going over safety rules then children make their own in pairs.

Demonstrate how to measure up fold and score the top of a net for a car body with tabs to fit a particular shape for the side of the net.

Resources

As Week 3

Plus, car net templates or ready cut card rectangles for sides

Maths link - measuring counting



Lesson Plans: KS1

Week 5

2 ACTIVITIES

Learning Objectives:

1. To make a prototype car body exploring nets and surface decoration
1. To be able to measure, mark, score and cut accurately and use precision in assembly of a product

Tasks

Ask pupils to complete the prototype by using the techniques modelled.

Demonstrate some decorative techniques which give a better-quality finish.

If using a net or card sides, ask children to decorate their net flat and then laminate before assembling it.

To find correct size of paper for bottle when making own sides: Draw side and cut out twice. Use string to measure length of curve and cut card strip with extra for tabs to make the top. Score top to fit side (using string to measure where to score) Decorate whilst flat and then assemble.

Resources

- Card
- Scissors
- Rulers
- String
- Various materials to use for decoration
- Laminating wallets

Week 6

Learning Objectives:

1. To be able to evaluate their product describing what went well and areas for improvement

Tasks

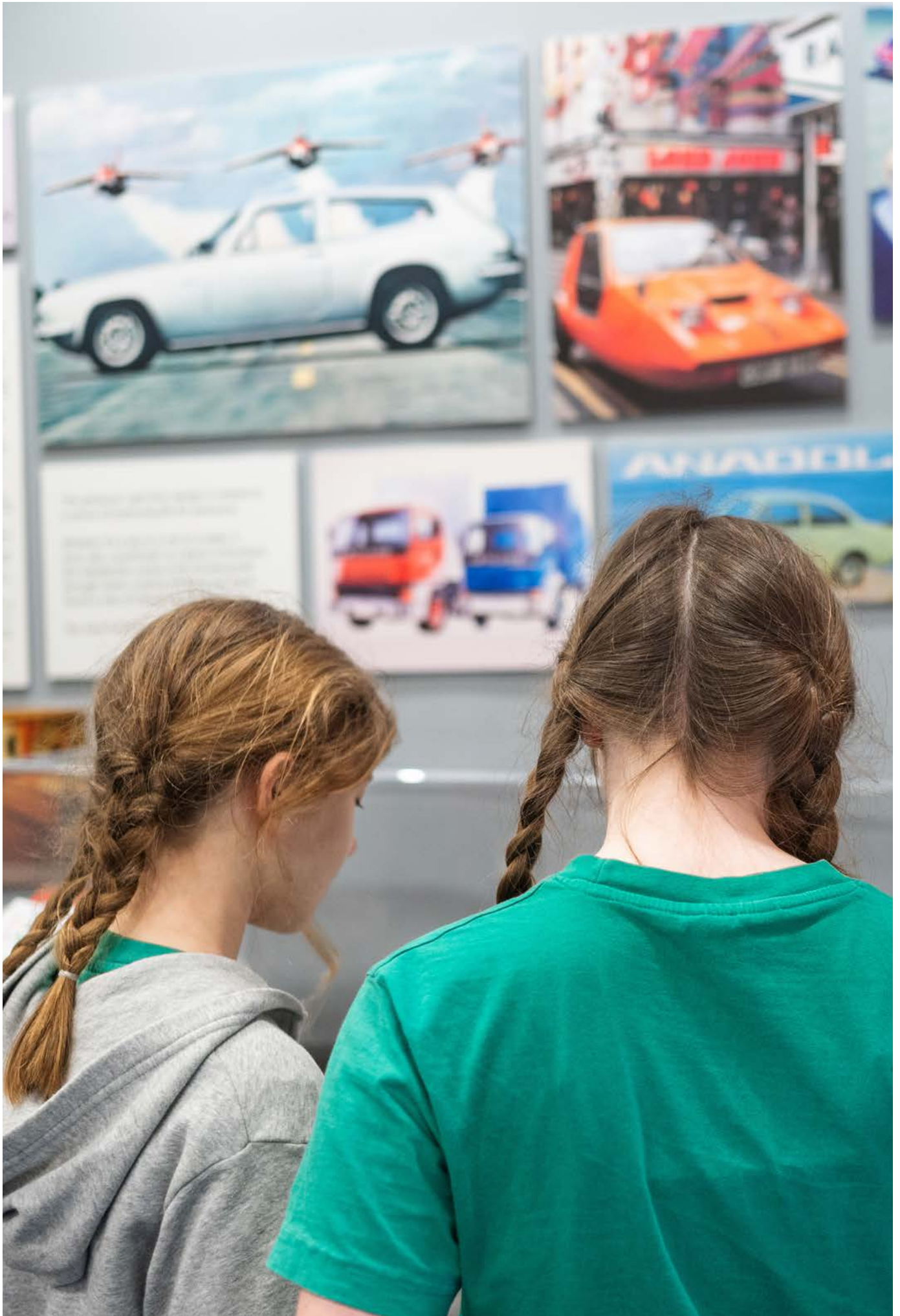
Look at the toy cars do they work? They should give positive feedback as well as constructive criticism about what worked well and what didn't.

Photograph and video the final products.

Children to complete a product evaluation. What did they do? How could they make it better?

Resources

- Evaluation sheet



“The pupils having an end project [...] I think was hugely valuable and their faces when they saw their work up on the wall was priceless!”

Alex Evans

Head Teacher Pixmore Junior School

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Please share feedback of your experience using the digital resources. Letchworth Garden City Heritage Foundation will use your feedback to improve the services we provide for schools.

www.forms.office.com/e/QRmDKjk6Lt

Before you Start

This project mainly focuses on Design Technology but also supports the curriculum for Science, Maths, History and Literacy as well as supporting their learning for life.

Specialist equipment to prepare:

- Electric circuit (crocodile clips, switch, pulley and cogs)
- Car build craft materials (square section wooden strips 10mm, card triangles, dowel and straws, wheels)

Before starting the project, tell the children their task of a building a car for the future.

They will design the car themselves and build a prototype with electric controls.

At the end they will race their cars, seeing who's is the fastest. This project will be inspired by a local history figure, designer Tom Karen.



Lesson Plans: KS2

Week 1

Learning Objectives:

1. To carry out research to develop design criteria
2. To analyse existing products to aid design

Tasks

Introduce the project and discuss the work of a designer – what does a designer do. Look at the work Tom Karen did around vehicle design.

Look at Tom Karen 360 virtual exhibition. Discuss who was Tom Karen, why is he important to us. Watch Tom Karen Key Stage 2 (LGCHF) video.

Discuss what is meant by the terms ‘controllable’ and ‘vehicle’.

What do you already know about cars (and toy cars) and how to make things move quickly? Elicit that the shape of the chassis/body has an impact and use the term aerodynamics. Ask: What other criteria do you think a successful vehicle is going to need to be the fastest?

Create a class mind map of everything they think vehicles should have. Think about designing the car for the future. The controllable cars will be electric (battery) but what could vehicles be powered by in the future? They should try to keep ideas general at this stage.

Use the video link and slides to discuss how the wheels in a car work (fixed wheels on moving axle or fixed axle and moving wheels).

Discuss how we future proof car designs, why is it important to consider the fuel type (and how this impacts the look of the car)

Make links to electricity science unit and consider how we might make our vehicles move.

Task: Students to draw a car and label the wheels, chassis, windows, doors, engine, fuel type.

Resources

- Powerpoint
- Key Vocabulary
- 360 Online Tom Karen: Creations:
www.discover-leitchworth.com/tom-karen-creations
www.bbc.co.uk/teach/class-clips-video/design-and-technology-ks2-axles/zmhfvk7

Key Vocabulary:

- Controllable
- Vehicle
- Pulley
- Belt
- Chassis
- Body
- Axle
- Wheels
- Aerodynamics

Lesson Plans: KS2

Week 2

Learning Objectives:

1. To create a mood board to gather ideas for a new product (Outside shape focus)

| Tasks | Resources |
|---|---|
| <p>Recap learning so far, what do we already know about cars? We have analysed existing cars and we have gathered vital information to help begin our designing; we have thought about how to make our vehicle functional.</p> <p>Today we are going to think about how to make our product appealing and fit for purpose.</p> <p>Recap-What is the purpose? To make it go as fast as possible and be environmentally friendly.</p> <p>Look at some mood boards together and explain their purpose.</p> <p>What do they want from their design? The car to look good but to be able to go fast.</p> <p>Do they think Tom Karen achieved cool and practical cars? How was he thinking about the future when designing.</p> <p>Ask pupils to find pictures of things that go fast (objects, animals) and things they like to create a mood board.</p> <p>What do they notice about the shape and aesthetics of the things on their mood board? (Links to science, reducing air resistance)</p> <p>Which design features did they like best and could incorporate into their design? Why?</p> <p>Children use iPads/laptops/print outs to create mood boards and share with their group.</p> | <ul style="list-style-type: none">• iPads• Laptops• Print outs fast animals and objects |

Lesson Plans: KS2

Week 3

| | | 2 ACTIVITIES |
|--|---|--------------|
| <p>Learning Objectives:</p> <p>Week 3 (a)</p> <ol style="list-style-type: none"> To create a design based on research To plan the steps to make their design | <p>Learning Objectives:</p> <p>Week 3 (b)</p> <ol style="list-style-type: none"> To be able to mark and cut accurately using junior hacksaw To use precision in assembly of a product to make a sturdy structure | |
| <p>Tasks</p> <p>Recap mood boards and speed/efficiency emphasis.</p> <p>Ask students to look at original car design and say what went well with their car design and what they could do to make it better – thinking about mood boards, speeds, how does it look etc. How will you put them all together?</p> <p>Today we are going to sketch our final design and then decompose the task and break it down into the different elements we are going to need to do to reach that design.</p> <p>Students to draw annotated sketches for their car ideas. Children must remember their success criteria when designing.</p> <p>As a class, decompose the task of making their final product. What steps will they need to do along the way?</p> | <p>Resources</p> <ul style="list-style-type: none"> Drawing supplies. Their car drawings from lesson 1 Their mood boards | |
| <p>Explain that the students will need to make a chassis for the toy vehicle and that one way to do this is to make a simple wooden frame and that in this lesson they will learn how to do this.</p> <p>Demonstrate activity going over safety rules then children make their own in pairs.</p> <p>Give out squared paper so that they can line up their square accurately. Use cardboard triangles on the corners to reinforce. Add a cardboard panel across the middle for resting all the electronics on.</p> <p>Add cardboard triangles as axle holders. Insert dowel and add wheels.</p> | <ul style="list-style-type: none"> Strips of dowel PVA glue Junior hacksaw Rulers Pencils Squared paper Cardboard triangles Cardboard Straws Square section strip wood 10mm² | |

Lesson Plans: KS2

Week 4

2 ACTIVITIES

Learning Objectives:

Week 4 (a)

1. To create a detailed final design which can be used to aid construction of their new toy

Learning Objectives:

Week 4 (b)

1. To be able to mark and cut accurately using a junior hacksaw
2. To use precision in assembly of a product to make a sturdy structure.

Tasks

Design finalisation

Look back at planned steps. What will they be doing make their car?

Ask children to remind themselves of their design criteria and look back at their designs from last week.

Children to choose which car template best fits their criteria/design and therefore which one they will make.

Give a basic demonstration of how the car templates work, folding it from a 2D shape to a 3D shape.

Children to draw on the paper template they choose, making it look like their car designs.

Resources

Continue week 3(b).

- Strips of dowel
- PVA glue
- Junior hacksaw
- Rulers
- Pencils
- Squared paper
- Cardboard triangles
- Cardboard
- Straws
- Square section strip wood 10mm²

Lesson Plans: KS2

Week 5

| | | 2 ACTIVITIES |
|---|--|--------------|
| <p>Learning Objectives:</p> <p>Week 5 (a)</p> <ol style="list-style-type: none"> To make a prototype car body exploring nets and surface decoration To be able to measure, mark, score and cut accurately and use precision in assembly of a product | <p>Learning Objectives:</p> <p>Week 5 (b)</p> <ol style="list-style-type: none"> To explore mechanical and electrical systems | |
| <p>Tasks</p> <p>Give detailed demonstration of how to measure up the fold lines and score them on a template for a car body which has tabs for gluing.</p> <p>Once happy they have mastered the techniques, check how their cars look.</p> <p>Ask pupils to complete the prototype by using decorative techniques.</p> <p>Demonstrate some decorative techniques which give a better-quality finish.</p> <p>Students should have windows on their cars, if laminating they could cut out the paper from the windows for a solid and see through finish.</p> <p>Make sure students finish decorating their net flat before assembling it.</p> <p>Car nets to be laminated to add strength ready for assembling the final car, using hot glue on the tabs.</p> | <p>Resources</p> <ul style="list-style-type: none"> Card Scissors Rulers String Various materials to use for decoration Laminating wallets | |
| <p>Give children sets of equipment to include: electric motor, battery, switch and transmission system, pulleys, elastic bands, wheels.</p> <p>Challenge them to make their chassis move in a straight line (use wooden frame made in week 3).</p> <p>They may need to play around with different pulleys and different rubber bands to find the best fit before they glue the wheels to the axis.</p> | <ul style="list-style-type: none"> Electric motors Motor mount Batteries Battery holder Wheels Pulleys Elastic bands Balsa wood Wire/Crocodile clips Chassis made in week 3 PVA | |

Lesson Plans: KS2

Week 4

2 ACTIVITIES

Learning Objectives:

1. To be able to evaluate their product describing what went well and areas for improvement

Tasks

Race the cars, recording their speed.

Winner is the fastest car.

Look at the drag test results and compare to the designs of the cars. They should give positive feedback as well as constructive criticism about what worked well and what didn't.

Children to complete a product evaluation.

Recap Tom Karen information. Are their cars similar or different to his designs? Why? How have times changed since Tom was a designer.

What can students do if they want to be a designer today? (Art clubs, projects, make a soap box car?)

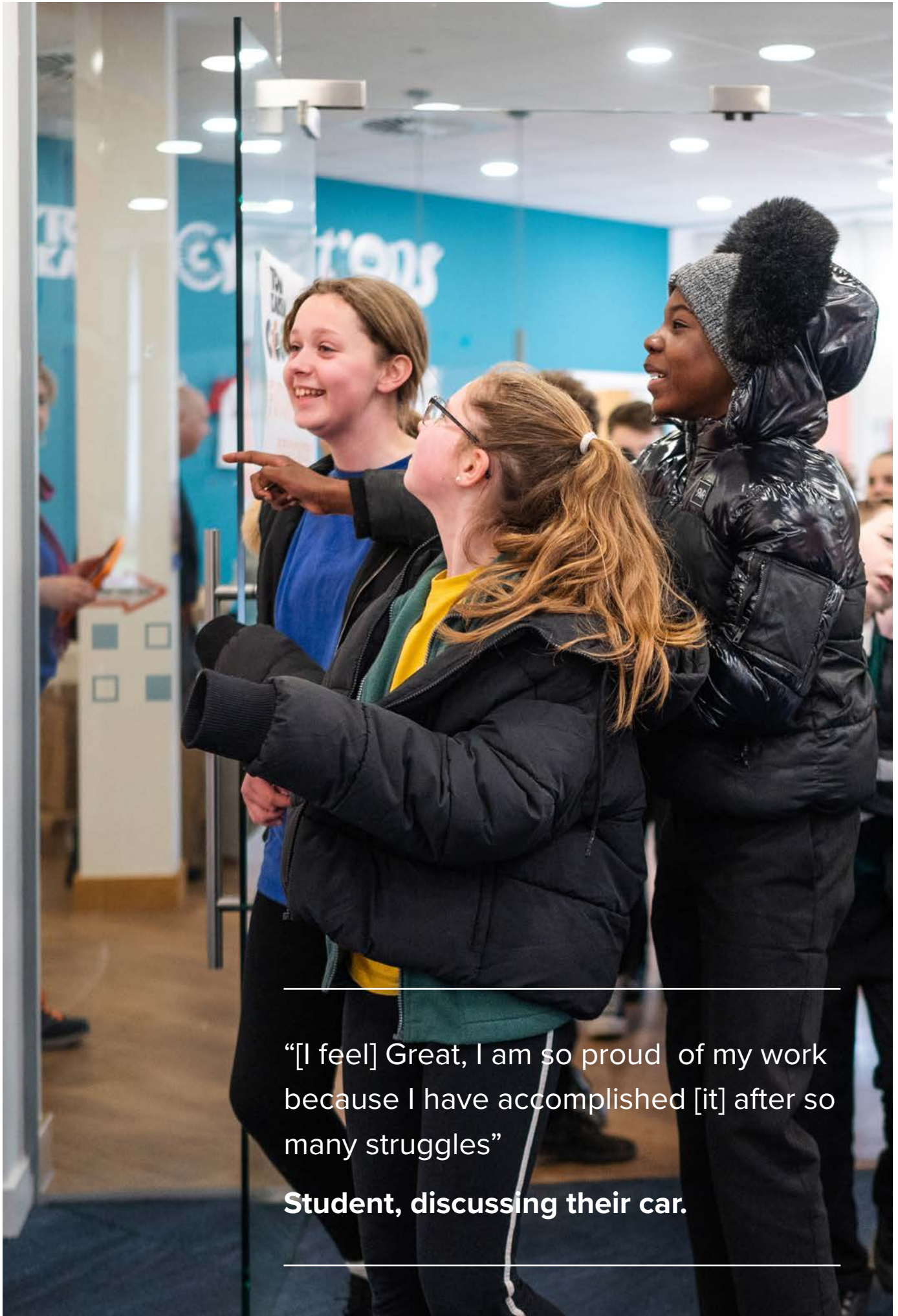
Resources

- Evaluation sheet

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www.forms.office.com/e/QRmDKjk6Lt



“[I feel] Great, I am so proud of my work because I have accomplished [it] after so many struggles”

Student, discussing their car.

Worksheets to Print

- Page 27. Car Evaluations
- Page 28. Sharing our Work (optional worksheet, children to co-design a display board with their cars and designs to share with the school)
- Page 29. KS1 Car Axel (instructions)
- Page 30. Notes & Sketch pages

Links to other resources

KS2 Car making and electrics instructions :

www.tts-group.co.uk/blog/2016/11/02/pulley-motorised-vehicle.html

Tom Karen:

- 'Tom Karen: Creations' online interactive exhibition
- LGCHF educational videos
- Powerpoint
- A3 Car template printouts (Wedge, Double Wedge, Bus)

www.discover-leitchworth.com/tom-karen-creations

Car Evaluation



What was your favourite part of the project?

What did you do to make your car? Describe the steps you took.

What went well when you made your car?

Why?

What did you find difficult?

Why?



Sharing our Work



Today you are a curator. Curators decide where things go in a museum or art gallery.

Can you design a display board to show all of the cars our class has made?

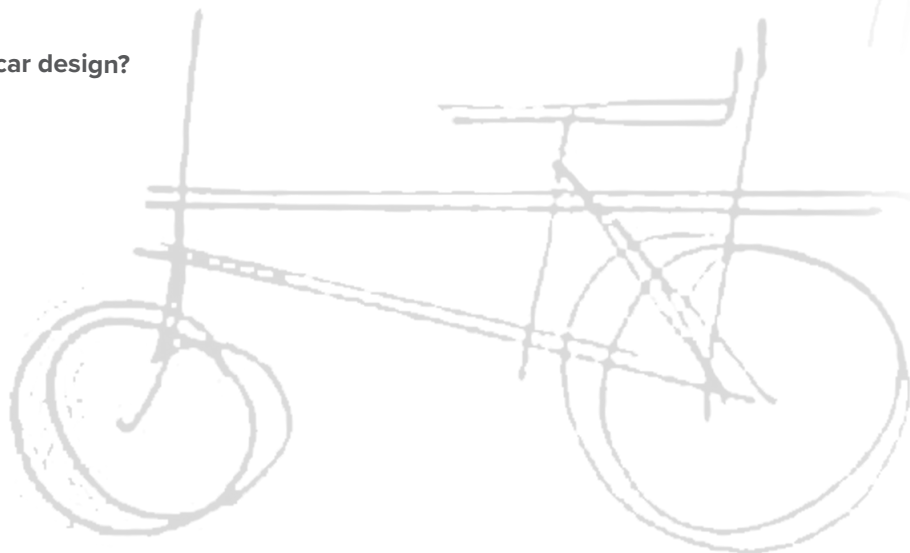
Use your imagination, how would you like to everyone to see it?

Don't forget:

- You need a title
- You need to tell everyone how we made our cars
- You need to show everyone's cars



What inspired your car design?



KS1 Car Axel



Measure 11cm and mark with a pen on 2 straws



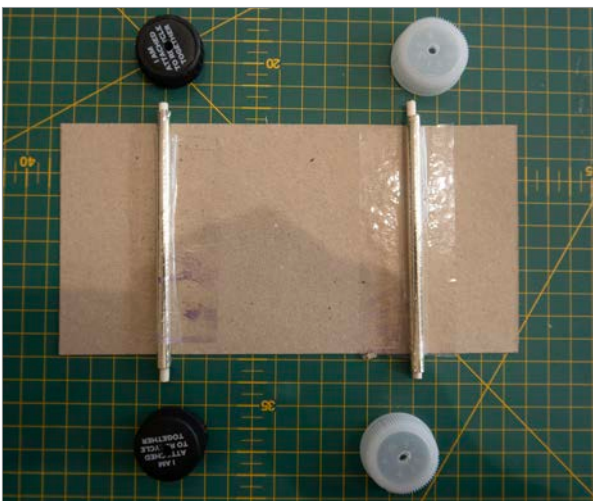
Draw a rectangle on thick card. Make 2 sides 10cm and the other 2 20cm.



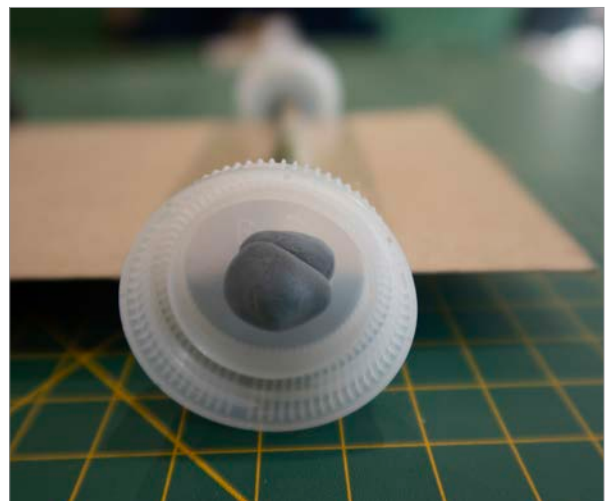
Cut out your rectangle and your straws.



Stick your straws onto your card. Push your wooden sticks through the straws



Check your wheels are matching sizes



Stick your wheels on your wooden sticks with blue tack on the outside

Notes & Sketches



A large, empty rectangular box intended for notes and sketches.

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A large, empty rectangular box intended for notes and sketches.



**TOM
KAREN**

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