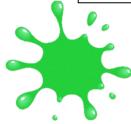
PUPIL WORKSHEETS

DESIGN A TEAM LOGO

Based on what you have learned so far, each team member should come up with ideas for a team logo. Use what you know about colour to make a careful choice.

Restricted Colour Palate

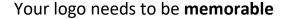
It is sometimes best to limit yourself to 2 or three colours to create a more dramatic effect. Look back at your colour mixing sheet and decide which colours go together best.



Each team member should annotate their designs explaining why they have chosen particular colours and how they decided on the design itself.

Remember:

Simple designs can sometimes be the most effective



Be **neat** and tidy in your presentation

Make your annotations clear and relevant

As a team, **positively** discuss each design together, before deciding on a team logo.

Remember:

Be respectful of other team members' work

Not everyone can be the best at drawing. Judge the design itself and not the person's ability to draw!

Find something **positive** to say about each idea

*It is the job of the graphic designer to copy out the final design

This could be the design that you decide as a group is the best, or you could take the best bits from a number of designs and put them together to make a new logo.





UNIFORMS

Uniforms are worn for many practical reasons. They can be used to protect clothing or to protect a product or environment. Uniforms are also used to encourage the feeling of belonging to a team.

Find pictures of people wearing different uniforms and stick in the space below



Fill in the grid below with occupations that may wear a uniform. Can you think of one reason that they might wear a uniform?

Occupation	Reason for uniform
School uniform	Feeling of equality
Firefighter	
Chef	
Your ideas	
Your ideas	
Your ideas	



A team uniform makes members of the team feel included.

It lets others know that you are a team and are working together.

It also shows that everyone in the team is equal and no team member is more important than the others.

Each team member should design a t-shirt to be worn by the team.

Consider how colour plays a part in uniforms?

Look at different work uniforms to get ideas. Think carefully about the colours that you use. The colours that you choose should be in keeping with your team logo, which should be included in your t-shirt design.

As a team' look at all the ideas and choose one of the designs or a combination of ideas to create a team t-shirt.

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TEAM UNIFORM

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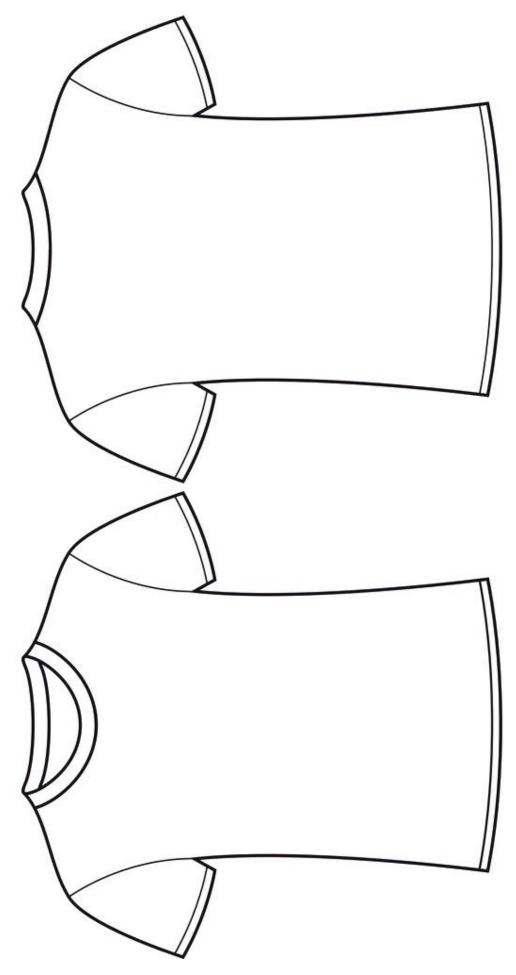
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TEAM T-SHIRT DESIGN



FRONT



TEAM T-SHIRT DESIGN



BACK

FACTS & ACTIVITIES

FORCES AIR RESISTANCE & GRAVITY

Air Resistance

Air resistance is caused by air pushing against a moving object. The air pushes on the object and slows it down. If you've ever been on a roller coaster, or cycled fast downhill, you might have felt this air resistance as wind on your face. A parachute uses air resistance to slow down an object's descent to the ground.

Gravity

Gravity is the force that pulls objects towards the ground.

Sir Isaac Newton discovered gravity when he saw an apple fall from a tree. He started to wonder why it fell downwards and came up with the idea of gravity.

Gravity stops us floating off in to space.

Things to think about...

What will happen if you drop a cannon ball and a feather at the same time from a high building?

PRIMARY STEM PROJECT

CLASSROOM ACTIVITY

Experiment with Air Resistance & Gravity You will need:

1. A4 paper 2. Thin card 3. Scissors

Step 1 Loosely scrunch an A4 piece of paper into a ball and hold in your hand at shoulder height. In the other hand hold a flat piece of paper.

> Drop both pieces of paper at the same time from shoulder height.

Which piece reaches the floor first? Why do you think this is?

Step 2 Repeat the experiment using the scrunched up paper and a paper aeroplane pointing downwards. Remember to drop them at the same time!

Which force makes the plane fall to the ground?

What force slows the scrunched up paper down?

To make something travel faster it needs to be streamlined or more aerodynamic

Step 3 Using your car chassis as a base, experiment by adding different shapes to the car to make it a more aerodynamic shape.

Use paper or thin card to make modifications. Consider about how weight will affect the speed of the car.

Ask your teacher to assemble the race track and air launch system. You can now test your car.

Do the modifications affect how fast/far the chassis will go?





WHAT IS STREAMLINED?

Collect pictures of objects that you think are **streamlined** and stick them to this page. This could be animals, vehicles, objects or shapes.

Annotate your collection of images



LABEL THE CAR PARTS

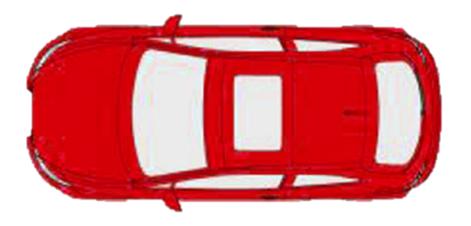
Windscreen - Wheel - Front Bumper - Rear Bumper
Wheel Arch - Head Lights - Number Plate - Tyres
Sun Roof - Windscreen Wipers - Ariel - Bonnet

SIDE ELEVATION











PLAN

REAR ELEVATION

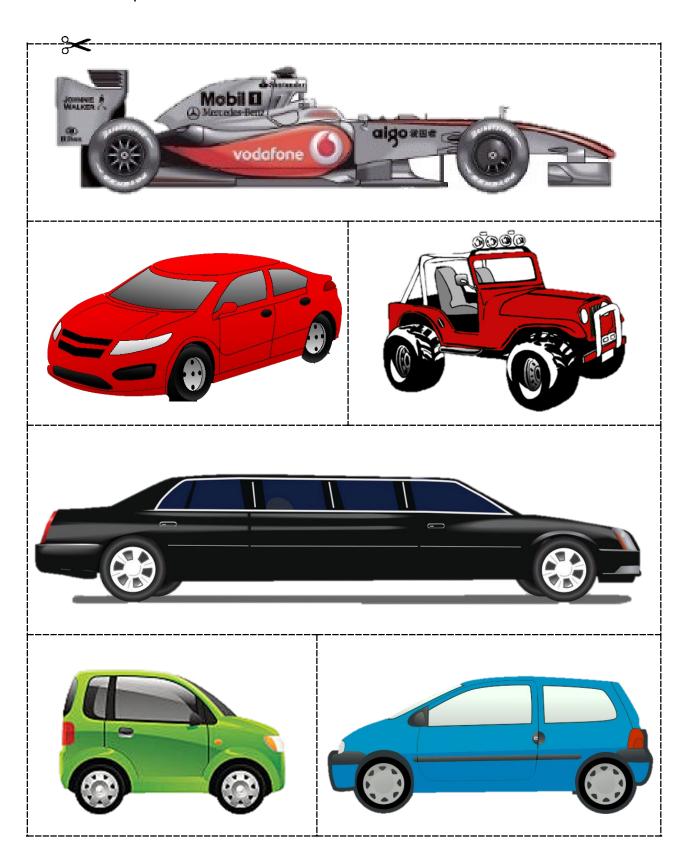
Extension Work

Car you label these parts?

Front grille - Indicator - Lights - Mirrors Wheel Hub



Cut out the pictures of cars and match the statements.



Label the cars using the following titles and then choose the correct description from the list below.

What would be a good type of fuel to use to help to make a vehicle environmentally friendly?

Which car is best for the environment?

Put the cars in order, from best to worst, considering environment.

Sports Car Limousine Smart Car F1 Racing Car Saloon Car Hatchback

4 X 4 All-Terrain

}<

A car specially designed to be driven on a race track. It only seats one person.

A low built car, made to perform well at high speeds. Can usually seat 2 people.

A long luxury car driven by a chauffeur. It can carry between 15-20 people and is often used for weddings or special events.

A family car designed to carry up to 5 people. It has plenty of space and a boot at the back for luggage or shopping.

A medium sized car. Can seat 4-5 people. The back of the car opens fully up to improve access to the boot.

A small car used to carry 2 people. It is environmentally friendly. Easy to park in small spaces.

A vehicle that drives on all four wheels and is often designed to be driven off road.



Car design is constantly changing. Why do you think this is?

Vehicles for different users have different features. Think about the difference between a Formula One racing car and a double decker bus. What makes them different and why?

Using the internet, research different motorised vehicle designs. Choose 3 different types of vehicle. Print out pictures of the vehicles, stick them into the boxes below and answer the questions.

What do you think is good about this
design?
What changes could you make to improve
What changes could you make to improve
the design?
What do you think is good about this
design?
What shanges sould you make to improve
What changes could you make to improve
the design?
What do you think is good about this
design?
What changes could you make to improve
the design?



SUMMERY & EVALUATION.

Have you completed the following tasks?

How well have you done?

Have you	y/n	How well did you perform this task?
Learned about uniforms and their purposes?		
Learned about forces, such as air resistance and gravity?		
Learned about technical drawings and how they are used?		
Added any new words to the glossary?		
Add other things that you have done here.		
Add other things that you have done here.		
Add other things that you have done here.		

In this box write down one thing that you think you did well and one way that you could make improvements.	



DESIGN TASK

Using only RED, GREEN, BLACK & WHITE, design a logo for a new F1 team called

Denford F1 Racing

Use this sheet to develop your ideas and draw the logo as a badge on the cap Template.





