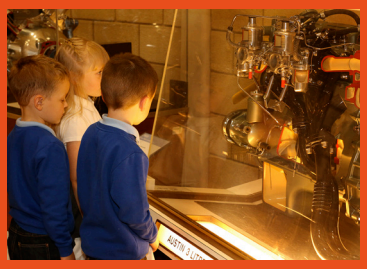
British Motor Museum Science Challenge



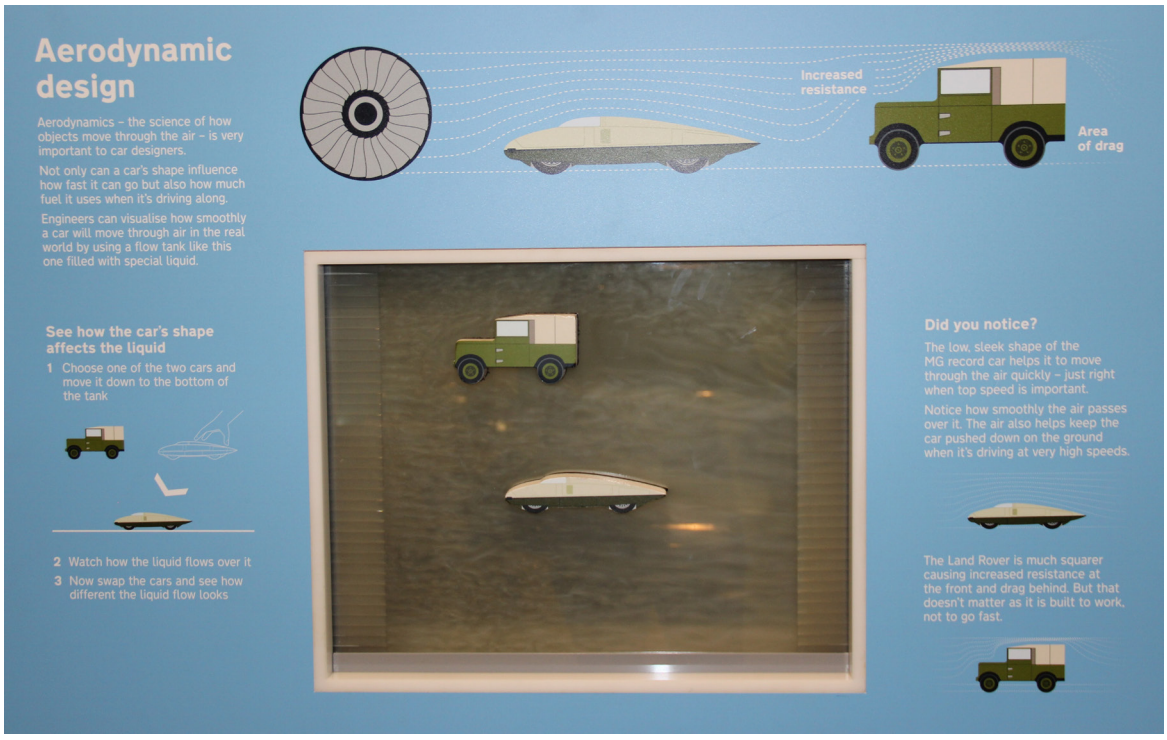
BRITISH MOTOR MUSEUM

British Motor Museum Science Challenge

Journey around the Museum and see if you can find all the science secrets behind our cars!

GO TO: DESIGN AND CONCEPTS

A really important secret to the science of cars is **AERODYNAMICS** - how air moves around an object!



MISSION 1

Try our Aerodynamics interactive wall: what makes the MG more aerodynamic than the Land Rover?

GO TO: GAS TURBINE

Another really important secret to the science of cars is **INVENTING** - trying out new things!

MISSION 2

These Gas Turbine Cars were the result of trying the kind of engines used in jets!

But which company made these cars?

ROVER ☐ LAND ROVER ☐ AUSTIN ☐

MISSION 3

Have a look at the three gas turbine cars in this area: can you find out their year and top speed?

Car	Year	Top Speed
 Rover T3		
 Rover T4		
 Rover BRM		

GO TO: SPORTS CARS

Another important secret is the **ENGINE** - the heart and muscles of a car!

MISSION FOUR

Can you find out what kind of engines these cars have?

Car	Year	Engine
 Leyland Straight Eight		
 Morgan 4x4		
 McLaren MP4 12C		

GO TO: LAND ROVERS

The next secret of the British car industry is...
MATERIALS - what the car is made from!

MISSION FIVE

Can you find the Land Rover Range Stormer?

What different materials can you see on this car?

PLASTIC

METAL

GLASS

RUBBER

SILK

PAPER

GO TO: MOTORSPORT

An important secret behind the science of cars is **FRICTION** - when two surfaces rub together!

MISSION SIX:

Rub your hands together! What can you feel happening to your hands?

Getting warm? ☐ **Getting cold?** ☐

This is a part of **FRICTION!**

MISSION SEVEN:

Find our two Formula One cars: Can you see any difference between the tyres on the 2 different cars?

GO TO: UNDER THE SKIN

This area of the Museum talks about the secrets behind **PARTS** — the different pieces that make up a car!

MISSION EIGHT:

Have a look at our brakes display...
Write down the times you get for each type of brake. Which one stops the fastest? Circle your answer.

Block

Drum

Disc

GO TO: UNDER THE SKIN

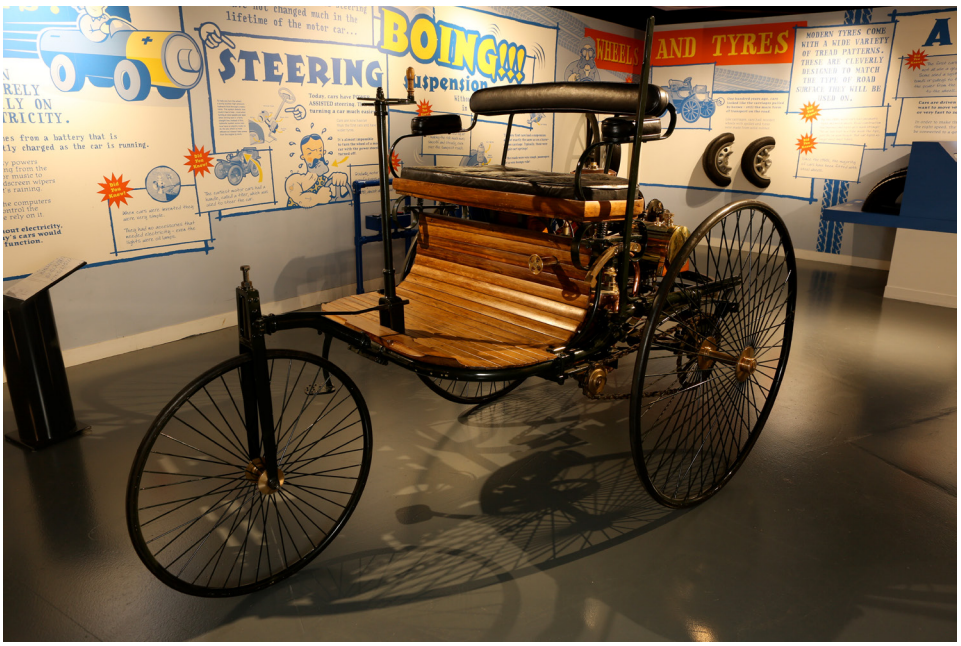
Have a look at the car in the middle of Under the Skin - this is the oldest car ever made!

MISSION NINE:

Have a look at the 1886 Benz. What is this car missing that are on our cars today?

Tick the boxes below!

- [ ] **BRAKES**
- [ ] **GEARS**
- [ ] **WHEELS**
- [ ] **SEAT BELTS**
- [ ] **STEERING WHEEL**
- [ ] **WINDSCREEN WIPERS**
- [ ] **HEAD LIGHTS**
- [ ] **ENGINE**



GO TO: UNDER THE SKIN

SUSPENSION is an important part of a car - it helps you have a smooth journey!

MISSION TEN:

Sit in our suspension chair, which kind of suspension gives you the smoothest ride?

COIL SPRING ⌜ ⌝ ⌞ ⌟

CART SPRING ⌜ ⌝ ⌞ ⌟

COIL SPRING WITH SHOCK ABORBER ⌜ ⌝ ⌞ ⌟

YOUR FINAL MISSION ...

You have travelled around the Museum and found out the secrets behind British cars.

But can you remember all those secrets?

Here is your final test...

1. What is the name that we give to the different things that cars are made from (eg. Metal)?

2. What force is made when two surfaces rub together?

3. What do we call all the pieces that make up a car (eg. Brakes)?

4. What part of a car is its heart and muscles that help it move?

YOUR FINAL MISSION ...

5. Whats the special word to describe how air moves around an object?

6. What kind of engine does the Rover-BRM have?

CONGRATULATIONS!

You have answered all of our questions, and found all the secrets of British cars!

Check your answers with your Leader and see how you did!