Meridian Innovators

DESIGN TODAY
SHAPE TOMORROW.

DESIGN TOOLKIT

Closing Date: Friday 28th February 2025

The winner will be announced in school at the end of the Spring term.

Introduction

What is the competition about?

Every day, the world is being impacted by technology. Meridian Innovators is a competition which aims to challenge and inspire you to design creative & innovative technology solutions to problems in the world today.

How long does the competition last?

The competition runs twice per year - once during the Autumn term and once during the Spring term.

Can I work in a team?

You can enter as an individual or in a group of up to three people. All the names of people in your group must be included in the Workbook.

How many entries can my group submit?

Each group or individual who participates can only enter one design.

Can my design be for anything?

Each term, there will be a new design brief which will tell you the theme for the competition that term. Whatever you design must fit the brief.

When and how can I submit a design?

Only the last two pages of this WORKBOOK need to be submitted. This can be done in two ways. It can be emailed to the school office (FAO: Mr Ritson) - with the subject 'Meridian Innovators' or it can be printed out and given to Mr Ritson.

Are there prizes?

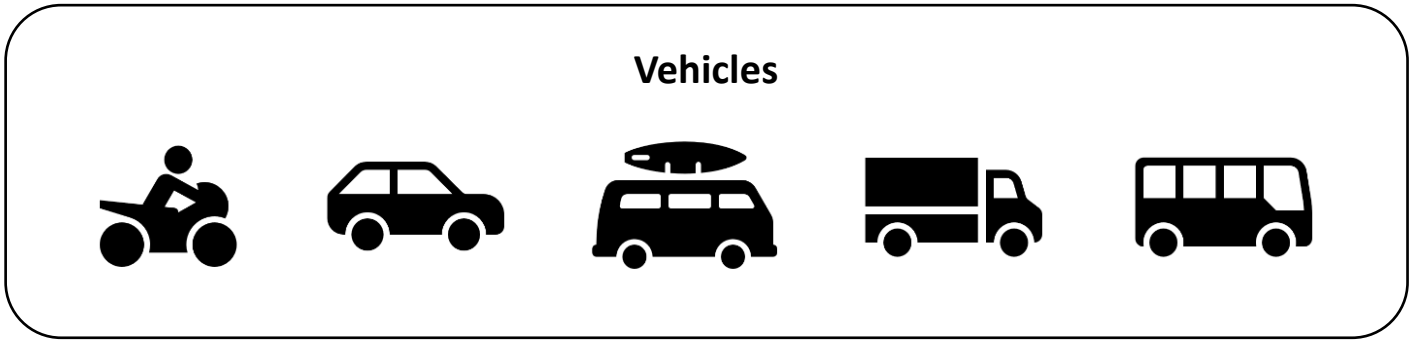
While this is predominantly meant to be a bit of fun, absolutely there are prizes on offer! All entrants will receive a certificate. There are prizes for the best school design as well as the best design in the Trust.

Spring 2025 – Design Brief

TRANSPORT TECHNOLOGY

Brief:

This term, we would like you to come up with an idea for a piece of technology which is designed to be used in a vehicle. It should be designed to be integrated into the vehicle and should be able to be switched on or off through the vehicle's dashboard/infotainment system.



To help you get started and to hopefully inspire some of your ideas, the table below shows a select range of examples of technology which is already available and can be used in vehicles made today. It also gives a short explanation about what the purpose of each is.

Transport Technology Examples

Air Conditioning

Purpose: Heats or cools the air in the car, making it more comfortable for passengers, especially on hot or cold days. This can help drivers maintain concentration and avoid accidents.

Heated Seats

Purpose: Makes car rides more comfortable in cold weather and can also provide some health benefits, such as helping to relieve muscle aches & back pain and improve blood circulation.

Front/Reversing Camera

Purpose: Provides extra visibility to the driver in blind spots in front/behind the car. It is particularly useful in specific situations, such as when parking.

Ambient Lighting

Purpose: Lights up areas of the car, such as doors, footwells controls around the car. This can make it easier to locate controls while driving at night and improve comfort & safety when driving at night.

Dash Camera

Purpose: Records video footage of your drive and provides a visual record of events on the road. This is particularly useful when drivers are trying to improve their driving habits or require evidence for insurance claims.

Parking Sensors

Purpose: Help drivers manoeuvre the vehicle safely. They alert the driver of obstacles when parking and use sound to help the driver calculate how far away the obstacle is.

Built in USB ports

Purpose: Allows the transfer of data from a phone to a car's infotainment system. It also allows the user of the vehicle to charge portable devices like their phone and tablet.

Vehicle Tracking

Purpose: Provides up-to-date information to the driver, such as location, trip history, performance and mileage. It can also help prevent theft by sending notifications when a vehicle moves from its parked location.

WORKBOOK

Names of group members (and class):

_____

_____

Name of your product:

_____

_____

Purpose: What is it used for?

_____

_____

How does your product work? How would you switch it on? What is the input, process and output?

_____

_____

_____

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_____

_____

Suggested labels:

- Different parts of the product
- What each part is made from
- How the product works

Labelled drawing: