Exhibition space description

This document explains each area of Silverstone Museum, what is displayed where and the interactives available (in *italics*).

**The Grid (entrance tunnel)** - film projection with flashing lights and loud audio. Racing machines from various points in time line up on the grid. In the entrance tunnel, hear the roar of the engines starting as the cars and bikes gear up and race out of the tunnel into the exhibition. Music plays, the lighting is low. There is a bypass passage if you would like to avoid entering the exhibition in this way.

*Film projection. Entry and exit is facilitated.*

**History at Every Turn**- find out stories behind the names of the famous corners, enjoy hearing racing legends telling stories about what makes corners special. Understand that the layout of the first floor reflects the layout of the track – and that the stories covered here can be explored in more detail in later displays.

*Table top projection*

**Luffield, Priory, Abbey, Becketts, Chapel**- investigate the medieval cloister-style structure, uncovering surprising and amusing stories about the once resident monks, The Plague, and other surprising fun facts. Crawl through the tunnel to the chapel.

*Tunnel with lift up flaps, sounds, items in holes. Cartoon stories of monks in large animations. Carp pond projection - stand on lily pads for information. Table top plan of The Abbey.*

**Stowe** - find out about the relationship between Stowe House and Silverstone, learn about the Oak Tree outside our building, try out the interactive map of Stowe. View Stowe landscapes.

*Press buttons to light up map and show short filmic info on screen. Landscape viewers.*

**Wellington Straight, Hangar Straight, RAF Silverstone** - understand that there was an RAF base at Silverstone during the Second World War. Make the connection between today’s circuit and the 1940’s runways. Make a connection between the adventurous spirits, technical know-how and lightning reactions of RAF crew and the skills and mentality of post-war drivers and riders. Have a go at training to fly a Wellington Bomber and other skills. Find out about stories of “daring do” and listen to the memories of Silverstone Villagers from WW2.

*Audio booths with real ‘daring do’ stories narrated (transcribed), display case of objects, interactive gunner trainer, interactive link trainer, interactive leaflet drop trainer (all Audio Visual (AV)/physical interactives), quiet projection room with memorial.*

**Return to racing**- joyriding stories from Silverstone’s past. What did the Stowe boys get up to? Who raced in the Mutton Grand Prix?

*Cartoon/comic book stories animations.*

**Farm**- find out about farming activity at Silverstone during WW2 and immediately afterwards. Find out about wild and farm animals that have lived on the site. Try the interactive map of the farm and find out more about the historic buildings.

*Press building on map and light up information. Footprints- lift up flap to find out which animals were on the farm.*

**Wings to wheels**- how did Silverstone go from RAF base to the race track used for the 1948 Grand Prix? Who was behind the decision? Hear Lord Howe.

**Village**- connect the name Silverstone to the village near the track. Listen to audio memories of racing at Silverstone from the 1940s to the present (transcribed), and other notable events in village history. Browse memorabilia and old photographs in the pub, play pub games.

*Village animation on window, oral history recordings on audio points (transcribed), racing game on pub table, touch items on table to access content e.g. beer mat, newspaper.*

**Racing begins** - understand that 2 October 1948 was a hugely important day in British racing, with the first Grand Prix taking place in Britain since 1938 at Donington Park, and a National 500s race as the supporting event. Feel inspired to get hands on with mechanics and engineering, try building your own 500cc, virtually.

*Watch footage of the events of the important initial race. Get close to a 500cc car and even closer to a replica ERA car.*

*Listen to modern commentary over historic footage, sit in a replica ERA car.*

*Computer game to build a 500cc car. Use rubbing plates to make a poster advertising the 1948 Grand Prix. Witness the view of drivers at ‘Segrave Straight’ in a large piece of AV.*

**The Heart of Silverstone**- Enjoy sounds, sights and smells that evoke the excitement of race day. Recognise that there are some aspects of racing at Silverstone that are timeless – the noise, crowds, fast-paced movement, smells of rubber and fuel all change in their detail, but the big picture stays the same.

*Pumped out smells- tyres and machine oil, AV screen with time lapse of Grand Prix set up, audio.*

Downstairs via the staircase or lift
All exhibition areas downstairs are on one level

**Eras**- be immersed in the sights and sounds of different racing eras. Recognise the distinctive designs and feel of the era. Learn about key developments, technology and personalities defining each era. Discover new stories and facts about favourite people, vehicles and events. Get close to iconic cars and bikes.

Access the BRDC archive collection through touchscreen technology.

*AV screens in each era with interviews (subtitled), footage and stills. Display cases of objects. Touchscreen media with digitised archive material in a database.*

*Touchable versions of items such as Gold Stars. Flip books with autographs, signing in sheets etc.*

**Techlab**- AV in this area includes interviews with experts (subtitled), active timelines and interactive screen based activities. There are physical interactives and artefacts displayed.

**Design:-** How does the year pan out? Who is employed by teams? From Blueprint to 3D printer.

**Tyres:- The rules F1 and MotoGP**
Tyre selection; Differences between road tyres and F1 tyres; Tyre temperature; Asperities, Grip

*3 x physical interactives exploring grip, graining, blistering, tyre choice.*

**Aerodynamics (Bodywork) :- The rules F1 and MotoGP**

Basic explanation of Vortices, Downforce, Pressure; Downforce tools; Working with wind (tunnels); Milestones.

2 x interactives exploring wind tunnel and downforce

**Brakes:- The rules F1 and MotoGP**

Friction; Retarding Torque; Heat; Braking milestones; Heat and Energy Recovery Systems;

*2 x physical interactives showing the conversion of Kinetic energy to Heat, and how hard it is to brake in F1*

**Engines:- The rules F1 and MotoGP**

ERS; Where does the energy come from?; Where does the engine go?; What happens in an internal combustion engine?; Formula E; Interactive engine showing ‘suck, squeeze, bang, blow’. How did engines evolve? (AV with interview at Cosworth). Interview with fuel tank specialists.

**Materials:- The rules F1 and MotoGP**

Strength to weight ratio; Range of Materials; Spread the weight; Building a balanced car.

Materials to touch and feel.

**Suspension:- The rules F1 and MotoGP**

What is it for?; Downforce; Milestones; Active Suspension; Oscillation; Spring; Shocks; Passive suspension; Push button interactive showing three types of suspension

**Transmission:- The rules F1 and MotoGP**

Gearbox; Torque; Constant power; Pre-selection; Milestones; Physical interactive showing gear ratio, real gear boxes to see, AV- interview with manufacturer.

**Putting it all together:-** Try out what you have found out by building the fastest machine you can!

*Computer activity to test the best design.*

**Data**

*Touch a steering wheel and find out how the data and communication works during a race.*

**Vehicle Safety**- explore an interactive car and find out more about what keeps drivers safe in modern racing machines. Find out that motorcycles don’t have many safety features!

*Press a button and the area on an F1 car lights up with information.*

**Personal Safety**- see a Nomex suit in a flaming case, see how racing attire has changed since the early days of racing. See historic racing suits.

*Display case of race suits, AV screen with Nomex suit behind flame.*

**Circuit Evolution**- how has Silverstone’s track changed over the years and why?

Watch the changes and find out when they happened.

*AV presentation detailing the changing shape of the track.*

**The Track**- safety at Silverstone and how we satisfy the regulations for all types of racing. Hear from the MD about the safety features.

*Actual track materials on display, AV film (subtitled) with Stuart Pringle detailing the safety features. Bank of race control screens- see what it’s like inside race control.*

**Racing Directory**- what’s on track any day of the year? Be surprised at the number of different types of motor racing that take place at Silverstone.

*Touchscreen scrolling ‘diary’ of current and future events on track.*

**Racing Strategy**- how do decisions made by teams and drivers effect the outcome of the race, from tyres to manoeuvres. Recognise the skills required by race strategists and that race strategists are rarely seen but an essential part of the team. Have a go.

*Play a racing board game, play an onscreen strategy game to set up your motorcycle for the race. Use a real Pit board.*

**Pit Lane-** Recognise the skills required by the pit lane team and how they have changed over time. Recognise how the pace of pit stops has changed over time.

*Try out a pit tool against the clock. See cars close up. Watch AV showing a modern vs historic pit stop.*

**Marshalls**- Go in a marshal’s hut, find out about the vital role they play.

*Learn about the marshals’ flags and test your knowledge in an onscreen game.*

**Medical Centre**- Recognise that motor racing is dangerous and medical help has to be at hand. Listen to stories of real incidents involving the Silverstone Medical Centre. Recognise improvements in medical care since the 1940s- see Sir Jackie Stewart as a ‘Pepper’s ghost’.

*‘Run the Medical Centre’ table top quiz game. Choose the correct answers to succeed.*

**Commentary**- have a go at commentating on a race, find out what it is like for those involved in broadcasting and media.

*Touch a screen and pick a film, record your voiceover and play it back.*

**Motorsport Valley**- Understand that Silverstone lies at the heart of ‘Motorsport Valley’ and is the reason why a large number of businesses are located in the surrounding area. Find out what you could do.

*AV of motorsport valley with info on the companies therein.*

**Legends**- who are Silverstone’s legends? We have picked 20 to tell you about.

*Some AV screen content (subtitled) about each legend.*

**The Ultimate Lap**- As visitors take a virtual lap of the circuit they will encounter motor sport legends of past and present. They start in the garage, where their cars are worked on by their teams before moving to the starting grid. From lights out and the nail-biting race to first corner, visitors will enter a surreal lap of Silverstone. At times they will see famous racing incidents on the track and even spot a Wellington Bomber.

Visitors will be able to see great racing moments, share the track with their heroes and overtake at lightning speed before taking the chequered flag.

*There is space for wheelchairs, a slight slope, loud noises, and low lighting. Entry and exit is facilitated. The first zone has subtitling*