



## HISTORIC HANGARS

In 1917 three aircraft hangars were built on the old airfield that used to be on the museum site. One of the hangars was destroyed by German bombs during the Second World War but the remaining two have been joined together to create the hall you are standing in today. If you look up you can still see the original wooden roof.

The aircraft now displayed in this hall span nearly 100 years of aviation history. Look at the exhibits and use the information boards to help you answer the questions.

### THE RAF OVERSEAS

Look at the Shark Mouth design on the nose of the Curtiss Kittyhawk. It is an American Aircraft from the Second World War, but where did this design originally come from?

From Allied and German aircraft markings during the First World War.

Lots of Aeroplanes had logos or designs painted on them. Have a look out for some more as you look round the museum today.

Find the 'Forgotten Air Force' display and look at the figure of the Airman. Airmen serving in the Far East during World War Two had to survive in very hot and difficult jungle conditions. Write down 3 things the RAF gave these men to help them cope with this climate.

1. Cap with insect net and red lining for signalling
2. Light weight flying suit
3. Marching boots
4. Advice on survival techniques

Think about how these things helped the men.

The Bristol F2B aeroplane was originally built as a fighter. Aeroplanes can be used for many different things other than fighting. This plane was used all over the British Empire. What different jobs did this plane do?

Policing / Offensive patrols / photographic reconnaissance / ground attack / escort duties.

## HISTORIC HANGARS DISCOVERY SHEET

### FIGHTERS

**Find the Spitfire Mk Vb.** The Spitfire is probably one of the most famous fighters used during the Second World War and the Spitfire Mk Vb (1941-1945) was one of the most successful. Which major event of the Second World War did the Spitfire Mk V take part in by providing gunfire direction?

D-Day

**Next to the Spitfire is the Phantom FGR2 (1968-1992) and like the Spitfire it has been highly successful.** This type of aeroplane was used in the Cold War. Look carefully at the Phantom and the Spitfire and compare these two fighting aircraft. What **differences** can you see? Is there anything that is **similar**? Use the display boards to help you.

**Similarities**

**Differences**

Possible answers: speed / power (jet or propeller) / colour / materials / shape / weight / wings / weapons

Generally anything you can see.

### WINGS OVER WATER

**Find the Lockheed Hudson Maritime Reconnaissance Plane.** The Lockheed Hudson did a lot of things first. Can you name **one** of them?

First aircraft to capture a German U-Boat / First plane to carry a lifeboat / First allied to shoot down an enemy operating in the British Isles.

## HISTORIC HANGARS DISCOVERY SHEET

**Next to the Hudson is the lifeboat the plane would have carried when it was used for search and rescue missions.**

Pretend you have been put in charge of getting together the emergency supplies for a lifeboat. Choose **four** things from the list of supplies below that **you** think are the most important. Think about **why** you made the choice.

Discuss it with your class mates/ friends/ family and see if they have different ideas.

Circle your answers and remember these are **emergency** supplies!

Compass	Radio	Comics	Water	Video Games
Food	Torch	Flare	Umbrella	First Aid Kit

**The Supermarine Southampton 1 flying boat was one of the most successful used by the RAF.** Unlike normal aeroplanes this type of aircraft can take off and land on water. What unusual thing was this plane also used as before it was restored by the museum?

House Boat

## WHIRLING ROTORS

**Find the bright red Wessex helicopter.** Why do you think it is this colour?

Royal Squadron Colours / Easily seen for rescue missions.

This helicopter was used by the Royal family. Which two members of the Royal family have piloted this helicopter?

Prince Charles and Prince Philip (Prince of Wales and Duke of Edinburgh).

**Find the Avro Rota Autogyro. Autogyros were the first aircraft with rotor blades and were used before helicopters were invented.** You can easily see how our modern helicopters were developed from autogyros.

What is the main difference between an autogyro and a helicopter?

Autogyro does not have powered rotors.

What can a helicopter do that an autogyro cannot?

Can't take off or land vertically / can't hover

## HISTORIC HANGARS DISCOVERY SHEET

### JETS

Who invented the jet engine?

Sir Frank Whittle

**Until the invention of the jet in the mid 1940's aeroplanes were powered by propellers. The jet engine had a huge effect on air travel.** How do **you** think the invention of the jet has affected flight? Think about the **improvements**, do you think there are any **bad** points?

Possible answers : Fly further / fly faster / fly higher / carry more / efficiency / safety / cost / noise / pollution

Generally any ideas you have.

### SAFETY

**As aircraft design developed, especially after the invention of jets, safety became a more important issue. In 1944 the Martin-Baker company was asked to design and make ejector seats to improve safety.**

What does an ejector seat do?

Ejects a pilot from the aircraft very quickly and allows him/her to parachute back to earth safely.

Ejector seats have been highly successful. How many lives had the Martin-Baker ejector seat saved by 1995?

Over 6400 people.