

# Risk Assessment

## Health and Safety at the Royal Air Force Museum, London

Health & Safety	The Museum complies with the requirements of the Health and Safety at Work Act 1974 and all associated legislation and guidance.
Public Liability	The Museum is a public building and has Public Liability Insurance of £5 million.
Public Areas	The Museum's public areas have been designed and are maintained as safe spaces for all our visitors.
Exhibits	Exhibitions and activities are designed with full consideration of risk control measures. Assessments are completed for all new works and activities.
Safety Checks	Daily safety checks are carried out on all galleries. Hazards are isolated or rectified immediately.

## Fire and Evacuation

Procedures	<p>The Museum has a robust Evacuation Policy with well rehearsed procedures that ensure visitors can safely and quickly exit the premises.</p> <p>In the event of a fire or other emergency requiring the evacuation of the buildings the fire or site alert signal will sound.</p> <p>Lead your group out of the Museum as quickly as possible – please do not stop to take the register until you reach the assembly point. Fire exits are clearly signposted. Lifts should not be used.</p> <p>Museum staff will direct you to the nearest assembly point. At the assembly point you should take the register and report any missing persons to Museum staff.</p>
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## Museum Staff

Staff	Royal Air Force Museum staff in direct contact with students are checked through the Disclosure and Barring Service (DBS). Staff delivering educational workshops and events have relevant experience and training.
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## Risk Assessment

Vehicle Traffic	You may need to cross the car park to enter the Museum. There are crossing areas available and there is a speed restriction of 10mph for vehicles in the car park.
Slips/trips/falls	Care should be taken when using any of the steps or stairs. There are some areas of the Museum with gentle slopes. There are low barriers around the exhibits which could potentially cause a trip hazard. In wet weather, some of the floor areas may be slippery.
High level areas	Handrails are provided where needed and there are appropriate barriers around high level areas.
Reduced lighting	In order to protect items in our Collection and also for film viewing, some areas of the Museum have reduced lighting.
Door entrapment	Beware of closing doors on fingers.

## Museum Arrangements

Arrival Arrangements	<b>All schools should proceed to the main entrance in Hangar 1.</b> Please note that the Museum opens at 10 o'clock. If you arrive earlier than this, you may have to wait outside.
Parking	The cost for parking cars is: 0-3 Hours - £4.50 per vehicle, 3-6 Hours - £6.00 per vehicle and for up to 9 Hours - £9.00 per vehicle. Parking for coaches and minibuses is free for those who have pre-booked (charges apply if not booked). If coach spaces have all been filled, your driver will have to drop you off on the road outside the Museum. You may need to cross the road to get to the entrance.
First Aid	The Museum has trained members of staff able to provide first aid treatment. Please ask if you require assistance or call 0208 358 4871. The nearest accident and emergency department is at Barnet Hospital and/or Chase Farm hospital. All first aid incidents are recorded.
Wheelchair Access	The majority of the Museum is accessible to wheelchair users with lifts available to upper floors. For more information, please check out the Accessibility page on our website - <a href="http://www.rafmuseum.org.uk/london/plan-your-day/accessibility.aspx">http://www.rafmuseum.org.uk/london/plan-your-day/accessibility.aspx</a> .
Lost Children	Lost children should report to a member of staff – all staff wear identification badges.
Supervision & Behaviour	Children should be supervised at all times, as appropriate for their age.
Age/Height Restrictions	There are age and/or height restrictions for the 4D theatre and the simulator. For details of these attractions, please call 020 8205 6867.
Storage Facilities	There are storage spaces available for children to leave bags and coats – <b>priority is given to schools with booked education sessions.</b>
Eating Facilities	There is a picnic area in the Aeronauts Interactive Gallery (H3/4/5) where schools can eat lunch. There is also a lunch space in Hangar 6.
Welfare Facilities	Toilets are situated in each building and are indicated on the map. Accessible toilets are available in each building and there is a Changing Spaces Toilet in Hangar 2.

## Risk Assessment for School workshops

### Likelihood x Severity = Risk

Likelihood – 1 = Very Unlikely, 2 = Unlikely, 3 = Likely, 4 = Very Likely

Severity – 1 = No Injury/Impact, 2 = Minor Injury/Impact, 3 = Major Injury/Impact, 4 = Fatality

Risk – 1-3 = Low, 4-6 = Medium, 7-9 = High, 10-16 = Very High

Workshop	Hazard	Whom	Risk	L	S	R	Control Measures	L	S	R
Wartime Classroom	Wooden desks with hinged lids	Participants	Potential of lids falling and trapping fingers	2	2	4	Warning from A&L staff prior to activity	1	2	2
	Use of ink pen with pointed nibs	Participants	Potential injury from pen nib	2	2	4	Supervision by A&L and school staff	1	2	2
	Going under desk during the air raid	Participants	Potential to bang head on desk or collide with another child	3	2	6	Supervision by A&L and school staff	1	2	2
Hands-on History: First & Second World War and Local History	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing	Participants and staff	Potential injury from dropping objects or catching skin Potential allergies to materials	2	2	4	Supervision & guidance from A&L and school staff. Check with individual children about allergies	1	2	2
	Going over and under barriers around exhibits	Participants and staff	Potential to trip when going over barriers or bang head when going under	2	2	4	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible	1	2	2
Air Raid!	Display of vintage table top mincer, sewing machine, knitting needles	Participants	Potential finger trap or injury from catching skin	2	2	4	Supervision & guidance from A&L and school staff	1	2	2
	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing	Participants and staff	Potential injury from dropping objects or catching skin Potential allergies to materials	2	2	4	Supervision & guidance from A&L and school staff Check with individual children about allergies	1	2	2

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Workshop	Hazard	Whom	Risk	L	S	R	Control Measures	L	S	R
Sensory Story	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing	Participants and staff	Potential injury from dropping objects or catching skin	2	2	4	Supervision & guidance from A&L and school staff	1	2	2
Helicopters	Use of strop to lift a child	Participants and staff	Potential for staff member to injure their back or to drop the child	2	3	6	Only trained staff to carry out this activity, staff to identify a small child and school staff to assist if needed	1	3	3
	Going over and under barriers around exhibits	Participants and staff	Potential to trip when going over barriers or bang head when going under	2	2	4	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible	1	2	2
Flight Factory	Using scissors to cut cable ties	Participants and staff	Potential injury from sharp scissors	2	3	6	Supervision from A&L and school staff, these scissors only used with secondary school students	1	3	3
	Using the Stixx roller machine	Participants and staff	Loose clothing, hair, jewellery or fingers could become trapped in the rollers	3	3	9	A&L staff to demonstrate correct use of machine, anyone using the machine should remove items which dangle down, long hair should be tied back	2	3	6

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Rockets	Use of compressed air launcher	Participants and staff	Potential for projectile to hit participants when launched or while in flight	2	2	4	Launcher is only operated by A&L or school staff, participants are seated behind the flight zone	1	2	2
	Use of children's safety scissors	Participants and staff	Potential cuts from scissors	2	3	6	Supervision from A&L and school staff	1	3	3
	Use of tape dispensers	Participants and staff	Potential cuts or scrapes from serrated edge on tape dispenser	2	2	4	Supervision from A&L and school staff	1	2	2
	Alka Seltzer rockets	Participants and staff	Could hit someone or damage property	2	2	4	Presenter will reinforce that all participants must stand back from their rockets once they have put lids on the canisters.	1	2	2
			Tablets might be swallowed – they contain aspirin so may lead to illness	2	2	4	Presenter ask the adults to make sure their children do not touch the tablet other than put in the film canister only. Presenter will reinforce that no-one eats the tablet.	1	2	2
Fantastic Flight	Test flying gliders	Participants and staff	Potential for glider to hit participants and staff when in flight	2	2	4	Supervision from A&L and school staff	1	2	2
Teddy's Transport	Going over and under barriers around exhibits	Participants and staff	Potential to trip when going over barriers or bang head when going under	2	2	4	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible	1	2	2
Sky Writing	Handling artefacts of varying materials and weight	Participants and staff	Potential injury from dropping objects or catching skin	2	2	4	Supervision & guidance from A&L and school staff	1	2	2

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<b>Under Pressure</b>	Use of trestle tables	Participants and staff	Potential for a table to collapse if anyone sits on one	2	2	4	Supervision from A&L staff and teachers	1	2	2
	Flight Jacket wearing	Participants and staff	Overheating from heavy stuffed jacket	1	2	2	Only put the jacket on volunteer for a limited amount of time.	1	2	2
	Flying Helmet and oxygen mask wearing	Participants and staff	If not put on carefully, hoses and connectors risk knocking wearer	2	1	2	A&L staff trained and take charge of the putting on and taking off equipment	1	1	1
	Marshmallows in syringe	Participants and staff	Syringes can break and leave sharp edges which could cause cuts.	2	2	4	A&L staff reinforce that syringes should be handled with care and shown correct use.	1	2	2
			Marshmallows are not stored in edible condition and may cause illness if eaten	2	2	4	Staff will not eat marshmallows and will not give any to the public	1	2	2
	Magdeburg Hemispheres	Participants and staff	Hemispheres are heavy / made of iron and could cause injury if dropped on foot or impacted with body	1	2	2	Staff provide instructions to participants to hold the hemispheres with 2 hands and place feet stably apart.	1	2	2
		Participants	Hemispheres are pulled in opposite directions. If they come apart this can cause participants to fall backwards, causing injury from impact with the ground and from the hemispheres themselves.	2	2	4	A&L staff provide instructions to participants to hold the hemispheres with 2 hands and place feet stably apart. Participants encouraged to not put their full weight in to pulling and instructed to take extra care.	1	2	2

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<b>Under Pressure</b>	Wearing Pressure Suit	Participants	Suit is very small and requires a small volunteer. Injury could be caused trying to put on or remove the suit if too tight.	1	2	2	Staff to pick a suitable volunteer. If none are available of a suitable size, the suit should be demonstrated without a volunteer.	1	2	2
	G Straining Manoeuvres	Participants	Muscle straining exercises if done too vigorously can cause muscle strain.	2	2	4	Participants are told techniques for G-straining and informed to try lightly exercising the muscles required.	1	2	2
	Use of Vacuum pump	Staff	Vacuum pump is heavy and could cause strain/injury to back and arms.	1	2	2	Staff take care when moving the vacuum pump and it is not to be stored high up or low down	1	2	2
	Marshmallows in Vacuum Chamber	Participants and staff	Vacuum Chamber could shatter if damaged	1	2	2	A&L staff inspect vacuum chamber before use	1	2	2
			Marshmallows are not stored in edible condition and may cause illness if eaten	1	2	2	Staff will not eat marshmallows and will not give any to the public	1	2	2
	Mr Potato Head in Vacuum Chamber	Participants and staff	Vacuum Chamber could shatter if damaged	1	2	2	A&L staff inspect vacuum chamber before use	1	2	2
		Staff	Shaving foam could cause skin irritation	1	2	2	Only sensitive shaving foam will be purchased and used for this demonstration	1	2	2



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Science Show	Use of trestle tables	Participants and staff	Potential for a table to collapse if anyone sits on one	2	2	4	Supervision from A&L staff and parents or guardians	1	2	2
	Being on 1 <sup>st</sup> floor Balcony level	Participants and staff	Potential for a child to lean over balcony / be lifted there by parents to see over the edge	1	4	4	Supervision from A&L staff and parents or guardians	1	2	2
	Paper Demo	Participants and staff	Papercut could be caused by paper	1	1	1	Supervision from A&L staff	1	1	1
	Big Paper Demo (Leafblower)	Participants and staff	Papercut could be caused by paper	1	1	1	Supervision from A&L staff	1	1	1
			Leaf blower can be dangerous at point blank range	2	2	4	Only trained staff to use leaf blower, with children not being blown from less than 1m distance.	1	2	2
			Pole could hit other volunteers if handled incorrectly	2	2	4	Supervision from A&L staff with clear instructions given to audience volunteers	1	2	2
	Leaf Blower Beachball	Participants and staff	Leaf blower can be dangerous at point blank range	2	2	4	Only trained staff to use leaf blower, with children not being blown from less than 1m distance.	1	2	2
			Chasing after beach ball may cause injury from slips / bumping in to objects	2	1	2	Encourage volunteers not to run after ball by providing clear instructions	1	1	1
	Flight Jacket wearing	Participants and staff	Overheating from heavy stuffed jacket	1	1	1	Only put the jacket on volunteer for a limited amount of time.	1	1	1
	Flying Helmet and oxygen mask wearing	Participants and staff	If not put on carefully, hoses, connectors risk knocking wearer	2	1	2	A&L staff trained and take charge of the putting on and taking off of equipment	1	1	1

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			Marshmallows are not stored in edible condition and may cause illness if eaten	1	2	2	Staff will not eat marshmallows and will not give any to the public	1	1	1
	Mr Potato Head in Vacuum Chamber	Participants and staff	Vacuum Chamber could shatter if damaged	1	2	2	A&L staff inspect vacuum chamber before use	1	1	1
		Staff	Shaving foam could cause skin irritation	1	2	2	Only sensitive shaving foam will be purchased and used for this demonstration	1	1	1
	Ejector Seat Alka Seltzer	Participants and staff	Could hit someone or damage property	2	2	4	The presenter is to reinforce that all participants must stand back from their rockets once they have put lids on the canisters. As a precaution the presenter is to ask participants not to place the rockets directly under any of the lights.	1	2	2
			Tablets might be swallowed – they contain aspirin so may lead to illness	2	2	4	Presenter ask the adults to make sure their children do not touch the tablet other than put in the film canister only. Presenter will reinforce that no-one eats the tablet.	1	2	2
	Teddy Parachute	Participants and staff	Falling teddy may hit visitors on the floor below	2	2	4	Staff ensure that the drop zone is clear before dropping the teddy and will ensure the parachute is open as much as possible before the drop.	1	2	2

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Debate Space	Use of Debate Table	Participants and staff	Reaching across the solid table could cause injury if not done sensibly.	2	2	4	Supervision from A&L staff and teachers	1	2	2
	Use of Stools	Participants and staff	Falling from rocking stools could cause injury	2	2	4	Supervision and instruction from A&L staff and teachers	1	2	2
	Moving round the Debate Table	Participants and staff	Participants move around the table for voting which could lead to slips and trips if done too quickly	2	2	4	Supervision and instruction from A&L staff and teachers - movement practiced and modelled as part of the tutorial.	1	2	2
	Use of the Audio Phones	Participants and staff	Inappropriate use of audio phones on flexible cables could lead to impact injuries.	2	2	4	Supervision and instruction from A&L staff and teachers.	1	2	2
Pilot Skills	Small Pieces	Participants	Small pieces/batteries can cause serious health problems if swallowed. Choke hazard.	2	3	6	Supervision & guidance from A&L and school staff	1	3	3
	Digital Screens	Participants	Continuous staring at digital screens could cause eye strain and headaches.	2	2	4	Breaks built in to activity. Session lasts maximum of 75 minutes.	1	2	2
	Spills	Participants and equipment	Spills around electric points and electronic devices could cause a shock and injury.	2	3	6	Participants will be asked to keep food and drink away from computers and sockets.	1	3	3
	Electric Shock	Participants	Electronic products and electrical circuits which could cause shock and injury.	2	3	6	Supervision & guidance from A&L and school staff. Laptops regularly PAT tested.	1	3	3
	Internet Access	Participants	Use of unacceptable sites	2	2	4	Supervision & guidance from A&L and school staff	1	2	2

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Magnificent Materials	Handling artefacts of varying materials and weight including glass and flight clothing	Participants and staff	Potential injury from dropping objects or catching skin	2	2	4	Supervision & guidance from A&L and school staff and use of a plastizote mat	1	2	2
	Use of leaf blower	Participants and staff	Risk of electric shock	2	3	5	Only operated by A&L staff, checked before use, regularly PAT tested	1	3	4
Pilots of the Caribbean	Digital Screens	Participants	Continuous staring at digital screens could cause eye strain and headaches.	2	2	4	Breaks built in to activity. Session lasts maximum of 75 minutes.	1	2	2
	Handling artefacts of varying materials and weight	Participants & Staff	Potential injury from dropping objects or catching skin.	2	2	4	Supervision & guidance from A&L and school staff	1	2	2
	Emotional Distress	Participants	Some participants may find the subject matter emotionally distressing.	3	2	6	Advise teachers before that subject matter may be distressing to. Have a built in safe-guarding exercise to encourage students to speak to teachers.	1	2	2
	Tripping down the lecture theatre stairs	Participants	As students head to and from their chairs, some might slip, trip and fall if they walk down too fast.	2	3	6	Supervision & guidance from A&L and school staff to ensure students are safe in our Lecture Theatre.	1	3	3

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<b>Battle of Britain: 80<sup>th</sup> Anniversary</b>	Going over and under barriers around exhibits	Participants and staff	Potential to trip when going over barriers or bang head when going under	2	2	4	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible	1	2	2
	Handling artefacts and wearing of varying materials and weight including replica incendiary bombs and flight clothing	Participants and staff	Potential injury from dropping objects or catching skin	2	2	4	Supervision & guidance from A&L and school staff	1	2	2
	Handling artefacts and wearing clothing of varying materials	Participants and staff	Allergies to materials e.g. latex, wool	2	3	6	Supervision & guidance from A&L and school staff. Check with individual children	1	3	3
	Dressing up in artefacts and replica clothing	Participants and staff	Slips, trips, falls	2	2	4	Supervision & guidance from A&L and school staff	1	2	2

Compiled by Access and Learning Team, September 2019