

# 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	Please refer to instructions in your booking confirmation email (sent from <a href="mailto:learning-london@rafmuseum.org">learning-london@rafmuseum.org</a> )
Parking	<p>Details of car parking charges can be found on our website - <a href="https://www.rafmuseum.org.uk/london/plan-your-day/car-parking-charges/">https://www.rafmuseum.org.uk/london/plan-your-day/car-parking-charges/</a></p> <p>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.</p>
First Aid	<p>The Museum has trained members of staff able to provide first aid treatment. Please ask if you require assistance or call 0208 358 4871.</p> <p>The nearest accident and emergency department is at Barnet Hospital and/or Chase Farm hospital. All first aid incidents are recorded.</p>
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	Schools booked for workshops will be given a lunch space at a designated time.
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.
Quiet Rooms	There are quiet rooms available in H1 and H6.

## Risk Assessment for School workshops

### Likelihood x Severity = Risk

Likelihood – 1 = Not likely, 2 = Seldom, 3 = Occasional, 4 = Likely, 5 = Frequent

Severity – 1 = Negligible, 2 = Minor, 3 = Significant, 4 = Severe, 5 = Critical

Risk – 1-2 = Low, 3-6 = Tolerable, 7-12 = Increased, 13-25 = High

Workshop	Hazard and Hazardous Event	Who or what is at risk?	Likelihood x consequence = Initial Risk Level			Controls in place	Likelihood x consequence = Residual Risk Level		
			L	C	R		L	C	R
Wartime Classroom	Wooden desks with hinged lids - potential of lids falling and trapping fingers.	Participants	3	2	6	Warning from A&L staff prior to activity - children asked to open and close the desk lids carefully	1	2	2
	Use of ink pen with pointed nibs - potential injury from pen nib.	Participants	3	2	6	Supervision by A&L and school staff	2	2	4
	Going under desk during the air raid - potential to bang head on desk or collide with another child.	Participants	4	2	8	Supervision by A&L and school staff plus a reminder to be careful as they go under the desks	2	2	4
Hands-on History: First & Second World War; Local History	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing - potential injury from dropping objects or catching skin. Potential allergies to materials.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff. Check with individual children about allergies.	2	2	4
	Going over and under barriers around exhibits - potential to trip when going over barriers or bang head when going under.	Participants and staff	3	2	6	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible.	2	2	4
Air Raid!	Display of vintage table top mincer, sewing machine, knitting needles - potential finger trap or injury from catching skin.	Participants	3	2	6	Supervision & guidance from A&L and school staff	2	2	4
	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing - potential injury from dropping objects or catching skin. Potential allergies to materials.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff. Check with individual children about allergies.	2	2	4
Sensory Story	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing - potential injury from dropping objects or catching skin.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff	2	2	4

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			L	C	R		L	C	R
Fantastic Flight	Test flying gliders - potential for glider to hit participants and staff when in flight.	Participants, staff and other visitors	2	2	4	Supervision from A&L and school staff	1	2	2
Teddy's Travels	Going over and under barriers around exhibits - potential to trip when going over barriers or bang head when going under.	Participants and staff	3	2	6	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible.	2	2	4
Sky Writing	Handling artefacts of varying materials and weight - potential injury from dropping objects or catching skin.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff	2	2	4
Flight Factory Challenge	Using scissors to cut cable ties - potential injury from sharp scissors.	Participants and staff	3	3	9	Supervision from A&L and school staff, these scissors only used with secondary school students.	2	3	6
	Using the Stixx roller machine - loose clothing, hair, jewellery or fingers could become trapped in the rollers.	Participants and staff	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
	Use of trestle tables - potential for a table to collapse if anyone sits on one.	Participants and staff	3	2	6	Supervision from A&L staff and teachers.	1	2	2
Under Pressure	Flight Jacket wearing - overheating from heavy stuffed jacket.	Participants and staff	3	2	6	Only put the jacket on volunteer for a limited amount of time.	2	2	4
	Flying Helmet and oxygen mask wearing - if not put on carefully, hoses and connectors risk knocking wearer.	Participants and staff	3	2	6	A&L staff trained and take charge of the putting on and taking off equipment.	2	2	4
	Marshmallows in syringe - syringes can break and leave sharp edges which could cause cuts.	Participants and staff	3	2	6	A&L staff reinforce that syringes should be handled with care and shown correct use.	2	2	4
	Magdeburg Hemispheres - hemispheres are heavy / made of iron and could cause injury	Participants and staff	3	2	6	Staff provide instructions to participants to hold the hemispheres with 2 hands and place feet	2	2	4

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Under Pressure	Magdeburg Hemispheres - 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.	Participants	3	2	6	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.	2	2	4
	Use of trestle tables - potential for a table to collapse if anyone sits on one.	Participants and staff	3	2	6	Supervision from A&L staff and teachers	1	2	2
	Wearing Pressure Suit - suit is very small and requires a small volunteer. Injury could be caused trying to put on or remove the suit if too tight.	Participants	3	2	6	Staff to pick a suitable volunteer. If none are available of a suitable size, the suit should be demonstrated without a volunteer.	2	2	4
	G Straining Manoeuvres - if done too vigorously, these exercises can cause muscle strain.	Participants	3	2	6	Participants are told techniques for G-straining and informed to try lightly exercising the muscles required.	2	2	4
	Use of Vacuum pump - vacuum pump is heavy and could cause strain/injury to back and arms.	Staff	2	2	4	Staff take care when moving the vacuum pump and it is not to be stored high up or low down.	1	2	2
	Marshmallows or Mr Potato Head in Vacuum Chamber - vacuum chamber could shatter if damaged.	Participants and staff	2	2	4	A&L staff inspect vacuum chamber before use	1	2	2
	Marshmallows - marshmallows are not stored in edible condition and may cause illness if eaten.	Participants and staff	2	2	4	Staff will not eat marshmallows and will not give any to the public.	1	2	2
	Shaving foam - shaving foam could cause skin irritation.	Staff	2	2	4	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 - potential for a table to collapse if anyone sits on one.	Participants and staff	3	2	6	Supervision from A&L staff and teachers.	1	2	2
	Flight Jacket wearing - overheating from heavy stuffed jacket.	Participants and staff	3	2	6	Only put the jacket on volunteer for a limited amount of time.	2	2	4
	Flying Helmet and oxygen mask wearing - if not put on carefully, hoses and connectors risk knocking wearer.	Participants and staff	3	2	6	A&L staff trained and take charge of the putting on and taking off equipment.	2	2	4
	Paper Demo - paper cut could be caused by paper.	Participants and staff	2	2	4	Supervision from A&L staff	1	2	2
	Big paper demo - pole could hit other volunteers if handled incorrectly.	Participants and staff	3	2	6	Supervision from A&L staff with clear instructions given to audience volunteers.	2	2	4
	Leaf blower - leaf blower can be dangerous at point blank range.	Participants and staff	3	2	6	Only trained staff to use leaf blower, with children not being blown from less than 1m	2	2	4
	Use of Vacuum pump - vacuum pump is heavy and could cause strain/injury to back and arms.	Staff	2	2	4	Staff take care when moving the vacuum pump and it is not to be stored high up or low down.	1	2	2
	Shaving foam - shaving foam could cause skin irritation.	Staff	2	2	4	Only sensitive shaving foam will be purchased and used for this demonstration.	1	2	2
	Mr Potato Head in Vacuum Chamber - vacuum chamber could shatter if damaged.	Participants and staff	2	2	4	A&L staff inspect vacuum chamber before use	1	2	2
	Ejector seat - could hit someone or damage property.	Participants and staff	3	2	6	Staff ensure that the drop zone is clear before starting the experiment.	2	2	4
	Alka Seltzer - tablets might be swallowed. They contain aspirin so may lead to illness.	Participants and staff	3	2	6	All tablets to be kept away from children. Only presenter to add the tablet to the film canister.	2	2	4

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Levers and Pulleys	Use of seesaw - trapped body parts under seesaw.	Participants and staff	3	3	9	Similar size children to be positioned at same distance from fulcrum. Heavier will be positioned closer to fulcrum to balance weight. Users told to hold on with both hands while on seesaw, not to touch the ground or push off with hands, keeping feet to the sides, out from underneath the seesaw. Non-users will stand back from seesaw in use.	2	3	6
	Use of seesaw - impact from falling off seesaw.	Participants and staff	3	3	9	As above. Users and others will not climb on or use the seesaw unless supervised by A&L staff. Crash mats are positioned under children using the seesaw.	2	3	6
	Use of seesaw - impact from improperly set up seesaw.	Participants and staff	2	3	6	Seesaw to be assembled and all joins to be fastened / checked / tightened where required before use. Staff are trained in the proper assembly of the seesaw.	1	3	3
	Use of engine crane pulley swing seat - trapped body parts under seat	Participants and staff	3	3	9	Users told to keep legs and body parts outwards away from the underside of the seat. Users to hold on to the swing chain or the pulley rope at all times.	2	3	6
	Use of engine crane pulley swing seat - impact from falling seat.	Participants and staff	3	3	9	Crash Mats and padding underneath all equipment.	2	3	6
	Use of engine crane pulley swing seat - injury from malfunctioning engine crane or rope failure.	Participants and staff	2	3	6	Engine crane inspected every 6 months. All bolts and folding elements to be checked before use to ensure locked in place. Staff trained in correct operation. Ropes checked regularly for any fraying.	1	3	3
	Use of engine crane pulley swing seat - rope burn / friction injuries.	Participants and staff	4	2	8	Users of the pulley system to wear gloves.	2	2	4
	Use of pulley kits - fingers trapped in pulley wheels / carabiners	Participants and staff	3	2	6	Participants told to keep fingers away from pulley wheels and other moving parts while in use.	2	2	4



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Levers and Pulleys	Use of lever kits - participants hitting each other with lever kit metre rules.	Participants and staff	3	2	6	Children will be briefed by staff and supervised at all times by both museum and school staff.	2	2	4
	Use of pulley kits - impact injuries from dropping weights.	Participants and staff	3	2	6	Caution will be advised. Weights will remain in the region of approx. 1kg.	2	2	4
	Use of pulley kits - friction burn from ropes.	Participants and staff	3	2	6	Caution will be advised. Participants will be taught not to impede the movement of the ropes while in use. Freely moving ropes will reduce friction and thus injury.	2	2	4
	Use of pulley kits - fingers trapped in pulley wheels / carabiners	Participants and staff	3	2	6	Participants told to keep fingers away from pulley wheels and other moving parts while in use.	2	2	4
	Use of pulley kits - trips / falls due to ropes on floor	Participants and staff	3	2	6	Caution will be advised. Groups will be informed to keep their ropes tidy and out of the way of others.	2	2	4
Debate Space	Use of Debate Table - reaching across the solid table could cause injury if not done sensibly.	Participants and staff	3	2	6	Supervision from A&L staff and teachers.	2	2	4
	Use of stools - rocking on stools could lead to a fall and cause injury.	Participants and staff	3	2	6	Supervision and instruction from A&L staff and teachers	2	2	4
	Moving round the Debate Table - participants move around the table for voting which could lead to slips and trips if done	Participants and staff	2	2	4	Supervision and instruction from A&L staff and teachers - movement practiced and modelled as part of the tutorial.	1	2	2

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Pilot Skills (Coding)	Small pieces - small pieces/batteries can cause serious health problems if swallowed. Choke hazard.	Participants	2	3	6	Supervision & guidance from A&L and school staff.	1	3	3
	Digital Screens - continuous staring at digital screens could cause eye strain and headaches.	Participants	2	2	4	Breaks built in to activity. Session lasts maximum of 90 minutes.	1	2	2
	Spills around electric points and electronic devices could cause a shock and injury.	Participants and equipment	3	3	9	Participants will be asked to keep food and drink away from computers and sockets.	2	3	6
	Electric shock - electronic products and electrical circuits which could cause shock and injury.	Participants	3	3	9	Supervision & guidance from A&L and school staff. Laptops regularly PAT tested.	2	3	6
	Internet access - use of unacceptable sites.	Participants	2	2	4	Supervision & guidance from A&L and school staff.	1	2	2
Pilots of the Caribbean and Magnificent Materials	Handling artefacts of varying materials and weight including replica incendiary bombs and flight clothing - potential injury from dropping objects or catching skin. Potential allergies to materials.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff. Check with individual children about allergies.	2	2	4
	Going over and under barriers around exhibits - potential to trip when going over barriers or bang head when going under.	Participants and staff	3	2	6	Supervision from A&L and school staff, barriers to be lowered to floor level, where possible.	2	2	4
Flying Colours	Digital Screens - continuous staring at digital screens could cause eye strain and headaches.	Participants and staff	2	2	4	Breaks built in to activity. Session lasts maximum of 60 minutes.	1	2	2
	Handling artefacts of varying materials and weight - potential injury from dropping objects or catching skin.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff.	2	2	4
	Lecture Theatre stairs - as students head to and from their chairs, some might slip, trip and fall if they walk too fast.	Participants and staff	3	3	9	Supervision & guidance from A&L and school staff to ensure students are safe in the Lecture Theatre.	2	3	6

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Battle of Britain	Handling artefacts of varying materials and weight - potential injury from dropping objects or catching skin.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff.	2	2	4
	Handling artefacts and wearing clothing of varying materials - allergies to materials e.g. latex, wool.	Participants and staff	3	3	9	Supervision & guidance from A&L and school staff. Check with individual children.	1	3	3
	Dressing up in artefacts and replica clothing - slips, trips, falls as they try clothes on.	Participants and staff	3	2	6	Supervision & guidance from A&L and school staff. Children are encouraged to sit down when trying on/taking off trousers, boots etc.	2	2	4
Online Sessions	Using online platforms - pupils may be exposed to upsetting or inappropriate content online.	Participants and staff	3	3	9	A&L staff member will be monitoring the feed at all times. A teacher will be with the pupils at all times. Teachers or RAFM staff could shut the feed down immediately if necessary. Schools and RAFM staff will have agreed to and signed a code of conduct prior to the session. Only pre-booked schools will be sent the link to join the online session.	1	3	3
	Using online platforms - participants may behave inappropriately	Participants and staff	3	2	6	A&L staff member will be monitoring the feed at all times. A teacher will be with the pupils at all times. Schools and RAFM staff will have agreed to and signed a code of conduct prior to the session.	1	2	2
	Recording sessions - information and/or images could be shared without consent.	Participants and staff	2	2	4	The Museum will not record any sessions without written permission from schools which will include the purpose for which the recording will be used. The Museum will only collect information which will allow the school to participate in an online session (e.g. teacher details and a school email address). No pupil details will be taken. Schools can choose to have cameras and microphones switched on or	1	2	2