



Exhibit/Zone Descriptions

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Introduction

Every exhibit should directly contribute to our Corporate Mission and Aims. These may be categorised as; Fire Safety in the home, community safety in general (e.g. arson, anti-social behaviour, car crime), the service's contribution to learning and understanding linking school based theory to real life application and recruitment and commitment to diversity.

Therefore, in the design of each exhibit, we must ask the question 'How does this contribute to our Corporate Aims?' or 'Why are we doing this?'

As a general guide, the minimum for non-IT based exhibit content should be 40%. We must not overlook the possibility for kids to get dirty, smelly, and smoky (wearing boiler suits if necessary). They want to be firefighters and the experience should try to accommodate activities like rat-runs, casualty searching, rescue scenarios etc. As many group/team building activities should also be included as possible.

Visits should be able to be varied according to the background of the audience wherever possible.

Exhibits should be designed so that a different outcome is reached, each time it is experienced. This will avoid the boredom factor of static exhibits. (This does not overlook the obvious outcomes e.g. getting out alive!)

FireWorld may be divided into a series of Zones where visitors can explore each exhibit within the zone at their own pace. Each zone will be themed and target a specific series of messages.

Incentives to return should be made possible and the take up of Home Fire Safety Checks also encouraged (e.g. Sony may offer monthly 'Playstations' as prizes)

School children may not be able to refer their home address as an HFSC booking on the day, we must ensure that this is addressed before they arrive (parental release in advance v incentive opportunities).

The following list of 'potential' exhibits and zones are intended to give a flavour of the type of content and the messages to be conveyed. The list is not exhaustive and will be developed further during Phase 2 of the project between in-house staff and a specialist Interpretation Design Consultancy.

FireWorld Draft Zone/Exhibit Schedule

Zone Title	Exhibit Title/Activity	Description/Storyline	IT/Notes
1. Reception	Meeter & Greeter	7ft-tall holographic Firefighter (with character: polite, rude, humorous)	
	HFSC	Book a Home Fire Safety Check; at reception, by phone or on-line (on way out or at any time)	Link to Fire Service Direct Link to MF&RS web site.
	Pay		Booking System Link to timing of Firefighter experience in Theatre (Red, White, Blue, Green Watch are called to attend the Theatre) Collects CRM data
2. Briefing	a) Meet a real Firefighter	Operational type briefing; what you will learn, achieve, see and do today. "Your mission should you choose to accept it" is to drive different fire appliances, fight a fire, search & rescue, learn how to escape from a fire, fly a helicopter, write a news story, take part in a crime scene investigation, visit a fire station etc. How to use the exhibits, the Visitor ID 'Fob' or 'Swipe card' works and keeps a record of your visit, what you will get at the end	
	b) Rules	There are no rules, we don't say "Don't Touch" (apart from parts of the museum) "If you run – you will miss something" "Keep your adult in sight, in case they get lost"	PC Rules!

	c) Lockers	Issue Fire kit to younger visitors. This should already have their name on it and the Fob logged-on. Space to store their coats and lunch	'Smart apparel' (Intelligent wear)
		Log-in	Capture Image, Voice and Identity System keeps track of activity, records results and provides something for the visitor to go away with; certificate, data, CD, e-mail to school etc. Customer Profiling and Educational Feedback loops (part of our CRM strategy)
		School visit briefing- your mission today.....	Predefined activities required to meet the relevant Key Stage in the National Curriculum
		Introduction to FireWorld IT	Link to MF&RS web site
3. Fire Science	a) Uses of Fire	Use of Fire through the ages. Fire is our friend if controlled; <ul style="list-style-type: none"> • The Sun • Basic need to keep warm • Keep safe • Cook food • Generate heat • Steam power • Generate electricity etc 	
	b) Chemistry of Combustion	Fire is a chemical reaction evolving Heat & Light	

c) Triangle of Fire	Demonstrate the Triangle of Fire (potential for dramatic real flame exhibit). Remove 1 element of Fire = No Fire etc	
d) Fire Extinguishers	The different types and how they work	
e) Smoke Travel	Demonstrate passage of smoke through a building, smoke buoyancy, best location of smoke detectors, effect of doors left open, stairwells	Potential glass model with smoke and doors and windows that pen and close (see Smoke Detectors below)
f) Fire Spread	How fire spreads through a building, conduction, convection, radiation and direct burning	Model + Video
g) Gas Explosion	Properties of different gasses, lighter or heavier than air, impact on firefighters, flammable or not. Demonstrate LEL and UEL (lower and upper explosive limits). Exhibit allows you to dial in %Gas + % Air and test if you have a 'Burn' solution. Can establish UEL and LEL. BLEVE (Boiling Liquid Expanding Vapour Explosion) Spectacular (Patio Heaters and Butane camping equipment and fires!) UVCE and PUVCE explosions	
h) Electricity	Characteristics of Electricity Heat & Spark, Dangers of Static Electricity, Dust Explosions, Fuel hose earthing on F1 Cars, Aircraft and Car Petrol pumps. Danger from electrical fires, electric blankets, overloaded sockets etc	
i) Dust Explosions	Exploding Custard	

	j) Properties of Materials	Oxidising agents, Aircraft Wheels, Structural Steel Expansion of metals resulting in collapse etc	
	k) Tornado	Centre piece exhibit- 20ft Tornado sat in a bath of petrol which ignites every 20 minutes	
4. Hazard Identification	a) HFSC	Why you should have a free Home Fire Safety Check. How to get one	
	b) Ban the Pan!	Chip Pan safety- get rid of it! (explosive force of a 'Boil-over')	Real Flame exhibit?
	c) Smoking Kills	Dangers of Smoking (particularly when mixed with alcohol)	Room simulation with Manikin in chair/bed?
	d) Rocket Abuse	Firework Safety	
	e) Elderly/Infirm	Care for these vulnerable groups	
	f) Watch your Wick!	Waxing lyrical about Candle safety. Demonstrates the dangers of candles falling over, naked flame, are they out?	
	g) Where's the Fire?	Epcot type exhibit – Hazard Identification game/test/competition	
	h) Smoke Detectors	The importance of fitting and testing	Model of house with smoke detectors- inject smoke, see it penetrate building, can vary door openings
	i) Sprinklers	Demonstrate how sprinklers and low pressure mist systems can save life and property	Real flame? 2 x exhibits with room settings- 1 x sprinkler, 1 x mist
	j) Workplace	FS in the workplace	10 things to be aware of
	k) Electrical safety in the Home	Emergency action	

	l) Water	Emergency action	
	m) Gas	Emergency action	+ Combinations of hazards such as water and electricity, gas and electricity
5. MF&RS & Advice	a) Beacon	Services for Older People	
	b) CFS	'Domino effect' analogy	Don't start on the road to ruin
	c) Advocates	Who they are What they do How advocates can help you	
	d) Fire Support Network		
	e) FACE		
	f) Youth Engagement Team		
	g) Princes Trust		
	h) Community Fire Stations		
	i) Fire Service Direct		
6. Fire Kids	a) Fm Sam		
	b) KATS		
	c) Kidde		
	d) Fire House	Adventure Play in a Fire Station (soft play)	
	e) House on Fire	Adventure Play, deal with a House on Fire (soft play)	

	f) Mini-fire Appliances	Ride on appliances (pedal/electric cars)	
	g) Fire-Bots	Robots for education and entertainment- see 'Probotics America'	
	h) Fire Boats	Mini ride-on Fire Boats	
7. Fire Escape	a) Drop & Go!	Learn how to crawl out of a building on fire under the smoke	Supervised activity, (+ theatrical smoke?)
	b) 999	How to call 999 properly, whom you speak to and what to say. An actual BT call box with several emergency images the visitor calls 999 and describes what they can see.	What to do if the phone-box is vandalised?
	c) Evacuate	Home evacuation planner	Prepare a home evacuation plan and test it against a simulated fire
	d) Escape from FireWorld	PC- Snakes & Ladders based game.	Use the correct Fire Extinguisher for each type of fire encountered on your way out to escape from 'FireWorld'
	e) Firefighter Jones and the Fire Safety Crusade	Test your Fire Safety knowledge by stepping on the correct 'stones' with Fire Safety messages on them. Step on the wrong stone (bogus/unsafe message) and the floor disappears into a cavernous, inferno. (See Indiana Jones and the Last Crusade or M. Jackson-Billy Jean or The Goonies)	Glass floor with PC generated image beneath, can be linked to visitors' age and range of messages. Opportunity for different routes every time it is experienced
8. Command & Control	999 calls (My Dingelling)	How the Control Staff take 999 calls and what they do with them	Show real 'Vision' screen
	Mobilising	How they decide which appliances to send PC- 'Bash the Gofer' game, assign appliance to incidents (drag-and-drop) as they occur, appliances indicated by Automatic Vehicle Location System and incidents shown on map.	Logistics Exercise

	Incidents	The types of incident we go to	Videos (BLEVE etc).
	Vision	The C+C System GIS EISEC- Location info + Hoax calls AVLS- how we find the nearest resource to the incident	
	Radio	Local, Regional, National	
	Procedures	The procedures we operate	
9. Fly-Drive	Fire Engine Driver	Mid-Town Madness- locate the address, navigate and drive safely to the Fire, 'Drive to Arrive'	
	Fire Engine Racer	F1 type race Fire Engines around a street circuit (Monaco circuit)	
	CPL Driver	PC- Manoeuvre a Combined Platform Ladder to fight fire and carry out rescues against the clock	
	Airport Fire Tender	PC- Drive an airport tender and guide a foam jet on to the plane on fire, against the clock	Link to 'News Desk'
	Bush Fire	PC- Fly an 'Attack Helicopter' to collect water and attack fire (jet or drop) carry out rescues by landing through gaps in the inferno	Link to 'News Desk'
	Tonka Firefighter	Drive a Fire truck or Fly helicopter and fire fight for 3-years+	
10. Firefighter	Pole Drop	Have a go at sliding down the pole x3; 2ft 4ft 6ft	
	CPL Operator	Enter the Cage/Platform and rise to the 14 th floor. Fight Fires and carry out rescues form several floors	

CPL	Apply physics in a group activity to manoeuvre a CPL into position to carry out rescues through a series of hydraulic pumping activities.	Against the clock
Jet-reaction	How many people's weight will a jet reaction support?	
Virtual Firefighter	Squirt virtual water at virtual fires	Link to 'News Desk'
Wet Target	Real, squirt-the-water at 'Fire' targets.	
Ship Fire	Fight the 'Empress of Canada or 'Pyrhrus' Fire' and don't sink it! (This time) PC- Carry out fire fighting and search and rescue on board ship or submarine offering a number of roles	Link to 'News Desk' Ships stability exercise Need a good 'GM'
Lego	See "Lego Windsor" for Fire Engine ride and squirt real water. Family Fun and a race.	Link to 'News Desk'
SRT	The Role of the Special rescue Team, their equipment and techniques	
Hot Shot	Search for trapped victims using thermal imaging technology	
Arson/Incident Investigation	Demonstrate how fires are investigated then play detective and investigate a real fire scene. See the forensic evidence on clothes. Petrol splashes on carpet and other evidence suggesting arson- glazing, light bulbs, switches, bolts etc. Deterrent to potential arsonists	Link to 'News Desk'
Fire News Desk	TV News studio with the news about Fire & Rescue- Multi-person activity in TV studio with full size studio camera, autocue, editing desk, sound, light etc. (See Sony	Team activity, requires, reporters, camera operators, producer, director, editor etc.

		<p>Wonder Tech Lab.) Told story as incident unfolds- show film clips of Incident Manager, Occupier, Passer-by, Police, and Ambulance crews. Then you have to create a News Story to take away. (Requires or develops Media & Communication skills)</p> <p>Addition of 'On Scene' reporter stationed around the corner with links to other exhibits and the 'On Scene' reporter describes the unfolding event.</p>	
	Loss Adjustor	<p>Visitors view school after a fire and asked to assess the cost room by room of the loss + any consequential loss. When asked to total the whole loss at the collection page, the paper burns up and work is lost –</p> <p>message = "this is what happens when the school burns down!"</p>	Maths, Social Responsibility
11. Road Traffic Collisions		<p>In Partnership with Merseyside Police & Mersey Regional Health Authority.</p> <p>Over 1.2m people are killed in road traffic accidents around the world each year.</p> <p>Each RTC death effectively has a cost to society of £1-2m. There are on average 3,500 deaths each year on the UK roads.</p>	<p>Potential to use HD Theatre for RTC type 'Ride'</p> <p>Show all of the resources deployed by the Police, Fire, Ambulance, Health Authorities and the cost of each</p>
		Merseyside Strategic Road Safety Campaigns;	Dealt with by Merseyside Police through; Education, Engineering and

		<ul style="list-style-type: none"> • In car safety (mobile phones, seat belts) • Drink Driving • Speeding • Failure to conform to traffic signals 	<p>Enforcement</p> <p>Include the causes of collisions</p>
		<p>Campaign Themes (under DfT direction)</p> <ul style="list-style-type: none"> • Winter driving • Driver inattention • Motorcycle Safety • Child Safety • Don't Drive Tired • Conspicuity (Lighting, pedestrians, cyclists) 	
	Trapped in a Car?	What is involved in a rescue	
	Race Car		
	Stunt Car		
	Noddy Car	Fun for youngsters	
12. Fire Service Management	Fire Service Manager 2005	<p>'SIM' Game- You are given a budget and a town, you assess the risks, develop resources, attend incidents, deliver CFS guidance, score points. Crew morale, resilience, CPA and public opinion affect the results!</p> <p>Business Management, Decision Making, Leadership</p>	
	Incident Commander	PC- direct resources at an incident	
	Crew Manager	PC- direct crews at an incident	

	Web Link	Link to MF&RS web-site	
13. Virtual Firefighter Experience		40-seat auditorium. Experience life as a firefighter on a station, receive call, turnout, fight fire, search & rescue, pole drops	HD Theatre + Heat, humidity, smoke, smell Include deterrent/consequences talk, criminal record (Prison Cell Option)
14. Reality Room	Fire Investigator	View the after-fire scene through the eyes of an Incident Investigator who initially view the scene as a series of arrows to track where it started. (CSI experience) “We can establish; where the fire started, how long it burned for, how much O2 was in the room, when the windows broke, whether accelerants were used, whether it was arson. Now all we need to do is find out Who started it.” Floyd the Arson Investigation Dog demonstrates how to identify “Who”. Rewind the video to uncover the cause of the Fire. Pause video and carry out Hazard identification. (Several versions) Then re-run the fire	Follows on from 13. above. Need to create final scene as a ‘stage set’, then set fire to it and film it.
15. Museum	Historic Firefighter	Vintage Fire Appliances	
		Equipment	
		Uniforms	
		Photographic/Cine/Slide Archive Collections	
		Henderson’s Fire 22/06/60 Turntable Ladder, Photos, Cine, interviews with Firefighter and those rescued	
	By Hook or by Crook	Carry out rescues on difficult to balance hook ladders	
	Wheeled Escape	Get to grips with the old kit: “ladders with wheels on!”	

Chariots of Fire	PC- Horse drawn fire engine game (progress through the ages, if you feed your horse etc)	
I Dream of Steam	PC- Steam powered Fire Engine game	
Contemporary Firefighter	Range of exhibits showing the work of Merseyside Fire & Rescue Service today	
	Climb-aboard, real, fire appliance, horns, lights, the works!	
Future Firefighter	How Firefighters will be rigged in the future;	
	HuD (Head up Display)	
	Thermal Image	
	Pocket BA Set	
	Communications & Listening devices	
	Cameras	
	CCBRN kit	
	Explosimeter	
	IT Aparell (intelligent Fire Kit)	
	Smart Liquids (advancement of latest crystalline data storage)	
	Fire Fighting in Space (how will we fight a fire in a space station?)	
	Inshore Rescue (EPIRB, Transponders etc)	
	Navigation equipment- auto search patterns (Land & Sea)	

	911 Memorial	Memorial to the Firefighters lost at 911 World Trade Centre and the Pentagon	
16. Shop		Range of FireWorld branded products and FDNY products sold under licence in addition to other Fire related toys, games and other products.	Potential to develop hand-held or PC games
17. Restaurant		Facility with 112 covers Provision of area for school visits to eat their own lunch	Eat healthy promotion "Firefighters 5-a-day" Use by conference delegates will co-promote
18. Offices	Centre Manager		
	Admin		
	Staff Room		
19. Rest Rooms		M, F, Disabled	
20. Server Room		IT Engineer service bay	
21. Services		H2O, Elec., Gas	
22. Storage		IT Equipment Cleaners Restaurant Shop Uniforms School visits lockers (large) x 4	
23.			