



GFG
FOUNDATION

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RISK ASSESSMENT TITLE											
GFG Blast Furnace (Covid compliant)											
RISK ASSESSOR NAME		BRIEF DESCRIPTION OF ACTIVITY						DATE VALID FROM			
Stuart Williams		Students will learn about blast furnaces and how they are being replaced with modern electric arc furnaces to combat climate change. In pairs students will use STEM (Science, Technology, Engineering and Maths) skills to construct a model blast furnace from wooden and electrical components. Pairs will compete in a game to make all LED lights within the model's chimney to glow red. The player within each pair who has the fewest attempts will win, but also the pair with the fewest combined attempts will win the overall trophy.									
AUTHORISING LINE MANAGER		PERSONS AT RISK		DATE(S) / LOCATION(S) OF ACTIVITY				REVIEW DATE			
Nathan John		Students/Staff		Please State:				RA will be reviewed weekly given the different schools/counties/Gov guidelines			
HAZARD		POTENTIAL HARM	RISK RATING			CONTROLS			RESIDUAL RISK		
List what could cause harm from this activity.		For each hazard, identify the type of harm that could occur eg biological, physical, chemical, safety, ergonomic or psychosocial	See Risk Ratings Tab			For each hazard, list the the measures you will be taking to minimise the risk identified.			See Risk Ratings Tab		
			Severity	likelihood	Risk				Severity	likelihood	Risk
Hazards associated with COVID-19		COVID-19 Contraction and Transmission	3	1	3	•Staff to be up to date with the latest government covid guidelines			3	1	3
GFG Blast Furnace is not a toy, unsuitable for small children under 11 Small parts area chocking hazard		Choking hazards	4	2	8	Full brief on danger, courses to only be run with 11+ learners, risk identified on packaging and on online instruction platform. Learners told not to put parts in or near their mouths and fully observed at all times			4	1	4
Use of Circuit Electrical Equipment: Use of electircal equipment (Arduino, LED strip, battery pack, neopixel, 9v battery)		Risk of cuts from cables				No solder being used, only jumper cables Electric Jumper cables re-made so young people YP don't have to cut wires and risk small cuts to fingers. YP briefed on and given diagram on how to connect circuit. YP Build circuit with no battery, then call a staff member over to check the circuit.					
		Risk of shock from circuit	3	2	6	YP warned of tell-tale signs of a misconfigured circuit which could lead in worst case to smoke.			2	1	1
		Risk of burns, battery explosion				9v battery or USB charger being used so no risk of serious electric shock. Young people told not to lean over circuit when the circuit is first tested. Online instructions and safety brief outline the danger of connecting both battery and USB power source simultaneously. REITERATED BY TUTORS FOR IN PERSON TEACHING. Young people told NOT to leave their devices turned on and to disconnect the battery when the product is not in use..					
Use of wooden pieces:		Risk of cuts from sharp edges	2	2	4	YP warned wood could have sharp edges and to take their time popping out the wooden pieces.			2	1	2
GFG Blast Furnace has LED flashing lights, potential to trigger seizure for people with photosensitive epilepsy		Photosensitive epilepsy / migrains	4	2	8	Full brief on danger, courses to only be run with 11+ learners, risk identified within the safety leaflet. School asked to tell us any additional needs and if students suffer from photosensitive epilepsy. Do not use kit's l ights around young people with epilepsy.			4	1	4
Finger trap present on pieces		minor injury to fingers	3	3	9	Care advised when closing certain pieces of the kit.			2	2	4
Unloading Equipment at the venue		Potential back injury, trips, falls, genral injury	3	2	6	Ensure heavy items are lifted by two staff member and that general items are lifted in a controlled manner			2	1	2
Ensure participants dietary requirements are met (only where GFG provides lunches/snacks)		Potential food allergies	4	2	8	Checks with schools/client carried out prior to sessions. Pupil medical info stored on site with schools / clients			3	1	3

Ensure participants are in a fit state to take part in the programme	Drug/alcohol use, prescription medication	5	1	5	Staff ensure participants are fit to take part in the workshops on the morning of every session and that their state of mind does not change during breaks and lunch.	3	1	3
Fire incidents	Personal Injury / Ill-health	5	3	15	Venue's own risk assessment followed Staff member to inform zero hour student staff of fire procedure at start of session. Staff member to hold contact details of participants and register them on safely exiting the building	1	5	5
Slips, Trips & Falls	Personal Injury / Ill-health	4	3	12	RW staff to do dynamic risk assessment of the room on the day of each event ensuring no obvious trips hazards etc. Staff member to run through safety points at start of each activity Staff member to make young people of any hazards before they start All parents/carers advised of activities taking place and have given their consent for their young people to take part. School has a risk assessment and issues to be reported to the school All equipment/trailing cables to be kept out of the way	3	2	6
Lone / out of hours working	Personal Injury / Ill-health	4	3	12	Lone Working and Out of Hours Working avoided where possible All staff will be paired for events but are not alone when on sites as there is staff at schools/other pupils	3	2	6
Misuse of equipment e.g. scissors	Personal Injury / Ill-health	3	3	9	Staff member at school will support this. Staff member to demonstrate how to use equipment correctly and safely Be advised of activities taking place and have given their consent for their young people to take part.	3	1	3
Accident/emergency situation	Personal Injury / Ill-health	5	1	5	Staff members at school to hold medical information on participants including emergency contact details Venue risk assessment to be followed	5	1	5
Safeguarding	Personal Injury / Ill-health	5	1	5	Staff briefed on safeguarding Staff members at school hold enhanced DBS check, no member of staff is left alone with pupils so for purposes of school risk assessments this is appropriate. Staff on contracts at university have enhanced check Reaching Wider Safeguarding policy to be followed	5	1	5
Mental Health	Personal Injury / Ill-health	2	4	8	Staff briefed on safeguarding. Staff briefed on safeguarding. Participants to be briefed to tell staff when they need a break and are not forced into participating in any activity that makes them feel uncomfortable.	3	2	6
Medication	Personal Injury / Ill-health	2	3	6	Staff briefed on safeguarding. Participants reassured to leave the room and take their medicine whenever required.	4	1	4
Criminal Record	Personal Injury / Ill-health	4	2	8	staff briefed on nature of record if any.	4	2	8
Hair trap in wind turbine	Personal Injury / Ill-health	2	4	8	staff briefed on making participants aware, and to tie hair back.	2	2	4
Circuit components can overheat if wired incorrectly.	Personal Injury / Ill-health	3	2	6	Staff to check wiring of circuits before connected to power	3	3	9