

## **RISK ASSESSMENT FOR 2024 STEMathon**

School:	St Joseph's School Waroona
Supervising teacher(s)/volunteers:	Coordinator: Sharni Silvestri, Whole School Staff that typically work on a Wednesday, Family
	Volunteers, Community Volunteers, Notre Dame Volunteers, Curtin University Volunteers,
	Mandurah Catholic College Student Volunteers
<b>Excursion Description:</b>	STEMathon
Year Level:	Kindy – Grade 6
Date(s):	Wednesday 14 <sup>th</sup> August 2024 (Term 3 Week 5)
Location(s):	Waroona Showgrounds: Waroona Memorial Hall/Town Oval/Amphitheatre/Waroona Fire
	Station/Ag. Society Room/Football Club
	St Joseph's School: Josephite Performing Arts Centre (JPAC)

RISK DESCRIPTION	EXISTING CONTROLS		RATING		DECISION	TREATMENT
Describe the risk event, causes and consequences [something occurs, caused by, leading to]	Any existing policy, procedure, practice or device that acts to minimise a particular risk	Effectiveness of controls	Risk consequence	Likelihood of occurrence	If control effectiveness is bad or unknown, provide further treatment	For those risks requiring treatment in addition to the existing controls. List:  What will be done?  Who is accountable?  When will it happen?
Traffic and Road Crossing: Crossing a vehicle's thoroughfare poses the risk of traffic accidents or collisions.	Assign responsible adults to supervise road crossings, choose safe crossing points, and teach students proper road safety rules.	Satisfactory	Moderate	Likely	Acceptable	
Emergency Situations: Various emergency situations such as fire, natural disasters, or other threats could require students to evacuate the building and gather at a muster point.	Communicate clear emergency response plans and communication protocols to ensure a safe and organised evacuation. Share muster point maps with staff through teams.	Satisfactory	Major	Unlikely  JOSEPH'S	Acceptable 14 AUG SCHOOL	UST 2024 WAROONA

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Safety and Security: Ensuring the safety and security of students at the muster point is crucial to prevent accidents or unauthorised access.	Communicate secure muster points away from potential hazards and apply the same protocols for verifying the presence of all students as performed on school grounds.	Satisfactory	Major	Unlikely	Acceptable	
Student Accountability: Ensuring all students are accounted for during an emergency evacuation might be challenging.	Assign specific staff members to take attendance and use a reliable tracking system to account for all students. Kindy to be in groups of four with responsible adults. PP to Grade 6 students will be allocated a buddy.	Satisfactory	Moderate	Initiative Unlikely	Acceptable	ng 🔻
External businesses bringing equipment and conducting showcases and experiments: Ensuring setting up and handling their equipment in a different environment is in line with normal protocols in their workplace.	External businesses and organisations will ensure proper setup and handling procedures are followed by their workplace handling and health and safety protocols.	Satisfactory	Moderate	Unlikely	Acceptable	
Medical Emergencies: During the excursion, students may experience medical emergencies such as injuries, allergic reactions, or sudden illnesses.	Be prepared with trained staff and first aid supplies, and follow school protocols for handling medical emergencies.	Satisfactory	Moderate	Likely	Acceptable	UST 2024

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Student behaviour: Students are overly stimulated and not follow safety directions	Teachers are responsible for their classes. Other schools are required to be responsible for their child and enforce their behaviour management. Code of conduct issue SWD students one on one where necessary	Satisfactory	Minor	Likely	Acceptable	Oval requires extra visibility vests for all teachers. Instruction on safe use of toilets.
Venues Memorial Hall, Showgrounds, Football club, ag society rooms, amphitheatre, fire station	<ul> <li>1- A public venue may present unforeseen hazards.</li> <li>2- The principal to inspect sites prior</li> <li>3- Copy of PI required for shire venues</li> <li>4- Venue Emergency management</li> </ul>	n Australian Satisfactory	Government Minor	Initiative Likely	Acceptable	ng 🍑
Lost child – school missing a child (refer to	If a child goes missing, what are the protocols – 1) Teachers of each school are responsible for their children. Perimeter surveillance 2) Senior leader (Principal/Deputy) will be available to assist. Police will already be onsite as presenting	Satisfactory	Minor	Likely	Acceptable	
Make a Magnet						
Burn Hazard: The copper wire can get very hot when connected to the battery.	Burn Hazard: Monitor the wire temperature and use pliers to disconnect it if it becomes too hot. Avoid prolonged contact with the battery.	Satisfactory	Moderate	Unlikely	Acceptable	
Electrical Shock: Electrical shock is risky if the battery terminals are improperly handled.	Electrical Shock: Instruct on properly handling battery terminals and ensure the wire is securely taped.	Satisfactory	Minor	Unlikely	Acceptable	UST 2024
Choking Hazard: Small components like paper clips and wire pieces pose a choking risk to small children.	Choking Hazard: Supervise small children closely and keep small parts away from young children.	Satisfactory	Major	Unlikely	Acceptable	WAROONA



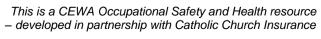


Cuts and Punctures:	Cuts and Punctures: Use appropriate					
Sandpaper, pliers, and the sharp ends of the wire can cause cuts or punctures.	tools carefully and carefully handle wire ends.	Satisfactory	Minor	Unlikely	Acceptable	
Fire Hazard: The combination of a hot wire and flammable materials can pose a fire risk.	Fire Hazard: Avoid leaving the electromagnet connected unattended and store materials safely after use.	Satisfactory	Major	Rare	Acceptable	ng
Eye Injury: Flying pieces of wire or sparks can cause eye injuries.	Eye Injury: Wear safety goggles if necessary and handle materials carefully.	Satisfactory	Major	Unlikely	Acceptable	
Inhalation Hazard: Fine particles from sanding the wire could be inhaled.	Inhalation Hazard: Perform sanding in a well-ventilated area and consider wearing a mask.	Satisfactory	Minor	Unlikely	Acceptable	
Aluminium Can Static R	oll					
Electrical Shock: Although unlikely, static electricity can cause small shocks that might be startling or painful	Electrical Shock: Inform participants about the potential for small shocks and advise caution when handling the balloon.	Satisfactory	Minor	Unlikely	Acceptable	
Choking Hazard: Small pieces, like balloons or parts of cans, pose a choking risk to small children if damaged.	Choking Hazard: Supervise small children closely and keep small parts away from young children.	Satisfactory	Major	Rare	Acceptable	
Slip and Fall: A rolling can or balloon on the floor can create a tripping hazard.	Slip and Fall: Keep the activity area clear and instruct participants to watch their steps.	Satisfactory	Moderate	Likely	Acceptable	UST 2024





Eye Injury: Balloons can burst unexpectedly, and small particles can fly into the eyes.	Eye Injury: Use safety goggles if necessary and carefully handle balloons to avoid unexpected bursts.	Satisfactory	Moderate	Unlikely	Acceptable	
Allergic Reactions: Some individuals may have latex allergies, and handling balloons could trigger a reaction	Allergic Reactions: Check for latex allergies among participants beforehand.	Satisfactory	Minor	Unlikely	Acceptable	ng
Fire Hazard: Static electricity, in rare cases, can ignite flammable materials	Fire Hazard: Conduct the experiment in a non-flammable area and ensure no flammable materials are nearby.	Satisfactory	Major	Rare	Acceptable	ALIA
Air Cannon						
Eye Injury: Airborne particles and the potential snapping of the balloon could cause eye injuries.	Eye Injury: Wear safety goggles if necessary and ensure participants handle the balloon carefully.	Satisfactory	Major	Unlikely	Acceptable	
Cuts and Punctures: Scissors can cause cuts if not used properly	Cuts and Punctures: Use scissors with care and under supervision.	Satisfactory	Minor	Unlikely	Acceptable	
Latex Allergy: Balloons may cause allergic reactions in individuals with latex allergies.	Latex Allergy: Check for latex allergies among participants.	Satisfactory	Minor	Unlikely	Acceptable	7
Balloon Blowout						
Chemical Exposure: Vinegar and bicarbonate of soda can cause skin and eye irritation.	Chemical Exposure: Wear gloves and safety goggles to protect your skin and eyes. Wash your hands thoroughly after the experiment.	Satisfactory	Minor **	Unlikely	Acceptable	UST 2024 WAROONA







Choking Hazard: Small items like balloons and bicarbonate of soda pose a choking risk for small children.	Choking Hazard: Supervise small children closely and keep small parts away from young children	Satisfactory	Major	Rare	Acceptable	
Mess and Slippery Surfaces: The mixture can create a slippery and messy surface.	Mess and Slippery Surfaces: Conduct the experiment in an area that is easy to clean, like a backyard or laundry. Clean up immediately after the experiment.	Satisfactory	Minor	Unlikely	Acceptable	ng
Bursting Balloon: The balloon can burst unexpectedly and cause particles to fly.	Bursting Balloon: Handle the balloon carefully and wear safety goggles to protect your eyes from unexpected bursts.	Satisfactory	Minor	Likely	Acceptable	
Ingestion Hazard: Ingesting bicarbonate of soda or vinegar can be harmful.	Ingestion Hazard: Keep materials away from the mouth and ensure children understand not to ingest any materials.	Satisfactory	Minor	Rare	Acceptable	
Mexican Jumping Bean						
Choking Hazard: Small items like marbles and pieces of aluminium foil can pose a choking risk for small children.	Supervise small children closely. Keep small parts away from children under three years old.	Satisfactory	Major	Unlikely	Acceptable	
Sharp Edges: Aluminium foil can have sharp edges that might cause cuts.	Handle aluminium foil carefully and fold edges inward to minimise the risk of cuts.	Satisfactory	Minor	Unlikely	Acceptable	
Eye Injury: Shaking or rolling the aluminium foil tube could cause the marble or foil piece to fly out and potentially cause an eye injury.	Instruct participants to gently handle the aluminium foil tube and avoid shaking it vigorously. Conduct the activity in a controlled area.	Satisfactory	Minor ed by ST	Unlikely JOSEPH'S	Acceptable	UST 2024 WAROONA





Swallowing Hazard: Marbles and small pieces of foil can be swallowed accidentally.	Supervise children closely and ensure they do not put the marble or aluminium foil pieces in their mouths.	Satisfactory	Major	Unlikely	Acceptable	
Hair Dryer Levitator						
Electrical Safety: A hair dryer involves electrical components and a power supply.	Ensure the hair dryer is in good condition with no visible damage to cords or plugs. Avoid water contact with the hair dryer during operation.	Satisfactory	Major	Unlikely Initiative	Acceptable	ng 🍫
Fire Hazard: Hair dryers can become hot during prolonged use, potentially causing burns or igniting nearby combustible materials.	Conduct the experiment in a clear, open space away from flammable materials. Do not leave the hair dryer unattended while it is in operation.	Satisfactory	Major	Unlikely	Acceptable	
Airborne Object Safety: Ping-pong balls or other objects may become airborne and cause injury or damage if they collide with a person or object.	Perform the experiment in a controlled environment with ample space around it. Ensure participants and observers stand clear of the ping-pong ball's direct path and airflow.	Satisfactory	Minor	Unlikely	Acceptable	
Physical Injury: Participants may accidentally touch the hair dryer's hot surface or get fingers caught in the airflow, potentially causing injury.	Ensure participants know safety precautions and keep hands clear of the hair dryer and airflow path during operation.	Satisfactory	Major	Unlikely	Acceptable	
Coanda Effect Understanding: Participants may not fully understand the Coanda effect and could mishandle the	Provide clear instructions and supervision, especially when tilting the hair dryer.	Satisfactory	Minor	Unlikely	Acceptable	UST 2024 WAROONA





hair dryer or objects,						
leading to unintended						
consequences.						
	7.0					
Weird Whirring Widget						
Choking Hazard: Small components such as rubber bands and pieces of straw could pose a choking hazard, especially for young children.	Keep small parts away from young children and ensure all components are securely assembled before use.	Satisfactory	Major	Unlikely	Acceptable	ng
Rubber Band Safety: Rubber bands can snap under tension, potentially causing injury.	Use rubber bands of appropriate size and strength. Avoid overstretching and ensure they are securely tied without excessive tension.	Satisfactory	Minor	Likely	Acceptable	
Lava Lamps						
Handling of Materials: Handling glass or plastic cups and liquids (water, vinegar, oil) can lead to spills or accidents.	Conduct the experiment on a stable, flat surface. Use plastic cups to minimise the risk of breakage. Ensure participants handle materials carefully and pour liquids slowly.	Satisfactory	Minor	Unlikely	Acceptable	
Chemical Safety: Bicarbonate of soda (sodium bicarbonate) and vinegar are safe for this experiment but should be handled with care to avoid ingestion or contact with the eyes.	Provide clear instructions on handling chemicals. Use gloves and eye protection if preferred, especially when handling larger quantities or in group settings.	Satisfactory	Minor	Unlikely	Acceptable	UST 2024

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This is a CEWA Occupational Safety and Health resource
- developed in partnership with Catholic Church Insurance



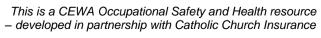


Oil Handling: Cooking oil can be slippery and may cause surfaces to become slick, increasing the risk of falls or accidents.	Use caution when handling oil. Clean up spills promptly to prevent slips. Keep oil containers closed when not in use.	Satisfactory	Minor	Unlikely	Acceptable	
Gas Release Awareness: The production of carbon dioxide gas through the reaction of bicarbonate of soda and vinegar may cause pressure buildup if performed in a sealed or tightly	Use an open container, such as a tall plastic cup, to allow gas to escape safely. Avoid sealing the cup during the experiment to prevent accidental pressurisation.	n Australian Satisfactory	Government Moderate	Initiative Unlikely	Acceptable	ng *
enclosed con  Clean-Up and Disposal: Improper disposal of leftover materials (e.g., liquids, bicarbonate of soda) may pose environmental hazards.	Dispose of materials according to local regulations. Recycle where possible and rinse containers thoroughly before disposal.	Satisfactory	Minor	Unlikely	Acceptable	
Slippery Surface Hazard: Spillage of the bubble solution, which includes dish soap and corn syrup or glycerin, can create a slippery surface.	Conduct the experiment in a designated area with easy-to-clean flooring. Promptly wipe up any spills to prevent slips or falls.	Satisfactory	Minor	Unlikely	Acceptable	
Chemical Safety: Glycerin and dish soap are generally safe but should be handled with care to avoid ingestion	Provide clear instructions on handling chemicals. Ensure participants wash their hands thoroughly after handling materials. Use soft cotton gloves.	Satisfactory	Minor	Unlikely S	Acceptable	WAROONA





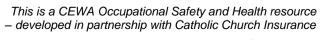
or contact with the						
eyes.						- A A
Outdoor Environment Recommendation: Bubbles can become sticky, potentially soiling indoor surfaces or fabrics.	Perform the experiment outdoors or in a well-ventilated area. Use appropriate clothing (e.g., gloves) to minimise contact with sticky substances.	Satisfactory  Australian	Minor	Unlikely	Acceptable	ng *
Eye Protection: Splashing or blowing bubbles may inadvertently lead to contact with the eyes, causing irritation.	Encourage participants to avoid blowing bubbles directly towards faces or eyes. Provide eye protection (e.g., safety glasses) if available and needed.	Satisfactory	Minor	Unlikely	Acceptable	
Environmental Impact: Improper disposal of leftover bubble solution could impact the environment.	Dispose of materials according to local regulations. Rinse containers thoroughly before disposal and consider recycling where appropriate.	Satisfactory	Moderate	Unlikely	Acceptable	
Clean-Up Protocol: Residual bubble solution may leave surfaces sticky and require thorough cleaning. Making Butter	Have cleaning supplies (e.g., paper towels, soap, water) readily available for quick clean-up after the experiment	Satisfactory	Minor	Unlikely	Acceptable	
Handling Food Materials: Handling dairy products (double cream) may pose risks for individuals with dairy allergies.	Inquire about allergies beforehand.	Satisfactory	Moderate	Unlikely	Acceptable	UST 2024 WAROONA







Hazard: Spillage of cream or liquid butter floorin	uct the experiment in a nated area with easy-to-clean ng. Promptly wipe up any spills to nt slips or falls.	Satisfactory	Minor	Unlikely	Acceptable	
Hygiene: whisk) Contamination of equipment or butter by improper cleaning of jars or utensils.	re all equipment (jars, bowls, ) is thoroughly cleaned with hot, water before use. Rinse well to we soap residues.	Satisfactory	Insignificant	Unlikely	Acceptable	ng *
Silly Putty						
Newtonian Fluid: Silly putty is a non-Newtonian fluid that can behave unexpectedly (e.g., tearing or stretching suddenly).		Satisfactory	Minor	Likely	Acceptable	
Spillage of liquid design ingredients (washing up liquid, food colouring) may create a slippery surface.	nated area with easy-to-cleaning. Promptly wipe up any spills to not slips or falls.	Satisfactory	Minor	Likely	Acceptable	
Materials: Handling of non-food materials consult (washing up liquid, instruction)	asise that the materials are for experiment only and not for imption. Provide clear ctions on safe handling and sal of materials.	Satisfactory	Minor	Unlikely	Acceptable	UST 2024
Strawberry DNA Extraction						







Allergies and	Inquire about allergies before the					
Sensitivities: Participants may have allergies to strawberries or sensitivities to dish detergent or alcohol.	experiment. Provide alternatives or exclude allergenic components if necessary.	Satisfactory	Moderate	Unlikely	Acceptable	
Chemical Exposure: Handling dish detergent and denatured alcohol may pose risks if ingested or exposed to the eyes or skin.	Wear gloves and safety goggles when handling chemicals. Conduct the experiment in a well-ventilated area. Provide clear instructions on safe handling and disposal of chemicals.	Satisfactory	Minor	Unlikely Initiative	Acceptable	ng
Sharp/Glass Objects: Sharp objects, such as droppers or test tubes, may cause injury if mishandled.	Provide proper training on handling equipment. Use blunt-end droppers or supervise younger participants closely.	Satisfactory	Moderate	Unlikely	Acceptable	
Slippery Surfaces: Spillage of liquids (DNA extracting solution, alcohol) may create a slippery surface.	Conduct the experiment in a designated area with easy-to-clean flooring. Promptly wipe up any spills to prevent slips or falls.	Satisfactory	Minor	Unlikely	Acceptable	
Glassware Safety: Glass test tubes may break if mishandled.	Provide instructions on proper handling and storage of glassware.	Satisfactory	Moderate	Likely	Acceptable	
Confetti Chimney						
Burns from Hair Dryer	Use the hair dryer in a cool setting to reduce the risk of burns. Ensure participants are aware of the hair dryer's safe handling, including not touching the nozzle during operation.	Satisfactory	Moderate	Unlikely	Acceptable	11ST 2024
Trip Hazard	Keep the work area clear of obstacles and ensure cables from the hair dryer do not obstruct pathways.	Satisfactory	ed Minor	JOSEPH'S Rare	Acceptable	WAROONA



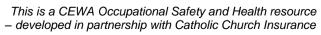


	Conduct the experiment in a spacious, uncluttered area to minimise the risk of tripping.		4			
Fire Hazard	Use the hair dryer on the cool setting to prevent overheating or ignition of materials. Keep flammable materials away from the hair dryer and any electrical outlets.	Satisfactory	Major	Rare	Acceptable	ing *
Magnetic Spring						
Magnet Ingestion	Ensure participants are aware that magnets should not be handled near their mouth or swallowed. Supervise young children closely during the experiment to prevent ingestion.	Satisfactory	Major	Rare	Acceptable	
Pinching Hazard: Magnets can pinch fingers if they snap together forcefully.	Instruct participants to handle magnets carefully and avoid placing fingers between magnets.	Satisfactory	Minor	Unlikely	Acceptable	
Magnet Breakage: Ceramic magnets are generally durable but can break if mishandled or dropped from a height.	Handle magnets gently and avoid dropping them. Ensure participants are aware of how to handle and store magnets safely after the experiment.	Satisfactory	Insignificant	Rare	Acceptable	
Magnet Swallowing	Ensure small children are supervised to prevent them from putting magnets in their mouths. Use larger, easily visible magnets to reduce the risk of accidental ingestion.	Satisfactory	Major	Unlikely	Acceptable	
Electric Jellyfish						
Electric Shock	Ensure the experiment is conducted with a latex rubber balloon that is not inflated to an excessive size to	Satisfactory	Minor	Unlikely	Acceptable	WAROONA





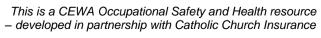
Balloon Bursting  Eating Nails for Breakfa	minimise the risk of static electricity discharge. Participants should avoid contact with electrical outlets or conductive surfaces during the experiment. Use balloons made of durable latex rubber appropriate for balloon animals. Inflate balloons to a safe size and avoid over-inflation to minimise the risk of bursting.	Satisfactory	Insignificant	Unlikely	Acceptable	ng
Contamination or Ingestion of Non-Food Items	Ensure the zipper-lock bag is securely sealed during mixing and magnet separation to prevent spillage or contamination. Participants should not ingest any part of the experiment materials (cereal soup) to avoid ingestion of non-food items.	Satisfactory	Insignificant	Rare	Acceptable	
Allergic Reaction	Cornflakes are a common commercial product, but ensure participants do not have allergies to any of the cereal's ingredients. Provide alternatives or substitute materials if allergies are identified.	Satisfactory	Minor	Rare	Acceptable	
Magnetic Interference	Ceramic bar magnets used in the experiment are generally safe, but participants should avoid placing magnets near electronic devices or sensitive equipment to prevent interference.	Satisfactory	Moderate	Unlikely	Acceptable	
The Nappy Secret						
Contamination or Ingestion	Participants should not ingest any part of the nappy or its contents to avoid ingestion of non-food items.	Satisfactory	Minor	Jo SRare H'S	Acceptable	UST 2024 WAROONA







Handling Sharp Objects (e.g., scissors)	Participants should handle scissors with care to avoid cuts or injuries.	Satisfactory	Minor	Unlikely	Acceptable	A.A.
Inertia Tablecloth Trick						
Safety of Participants: Participants might inadvertently pull too hard or unsteadily, leading to accidents.	Instruct participants on the proper technique for pulling the tablecloth and ensure they understand the experiment's purpose and risks.  Provide clear safety instructions and supervision.	Satisfactory	Minor	Likely	Acceptable	ng 🍑
Fort Building						
Sharp Edges and Splinters from Bamboo: Children could get splinters or cuts from handling bamboo, especially if it's not smooth or has sharp edges.	Supervise children closely to ensure safe handling.	Satisfactory	Minor	Unlikely	Acceptable	
Tripping Hazards: Loose bamboo, ropes, and sheets can create tripping hazards, especially if spread across an area	Keep the building area clear of unnecessary items. Ensure children are aware of where ropes and bamboo are placed. Encourage tidy building practices.	Satisfactory	Minor	Unlikely	Acceptable	
Entanglement and Strangulation with Rope: Children may inadvertently wrap ropes around their necks or limbs, leading to entanglement or strangulation.	Use ropes of appropriate length and thickness. Teach children proper rope handling and avoid leaving loose ends. Supervise closely to prevent unsafe rope use.	Satisfactory	Moderate	Rare JOSEPH'S	Acceptable 14 A G	UST 2024 WAROONA







Falling Objects:	Ensure bamboo and clamps are					
Bamboo or clamps used in construction could fall if not properly secured.	securely fastened and balanced. Teach children proper assembly techniques and supervise their construction efforts	Satisfactory	Minor	Unlikely	Acceptable	
Safe Use of Clamps: Clamps could pinch fingers or cause injuries if not used properly.	Provide clamps suitable for children's use (with rounded edges). Instruct children on proper handling and use of clamps. Supervise closely during assembly and disassembly	Satisfactory	Minor	Unlikely	Acceptable	ng
Cardboard Construction	1					
Scissors: Cutting injuries, especially if not used properly or left unsupervised.	Educate users on safe handling and storage. Ensure scissors are used on appropriate surfaces and not toward oneself or others.	Satisfactory	Minor	Unlikely	Acceptable	
Staplers: Pinching or jamming injuries from misuse.	Use staplers with safety features that prevent misfiring or jams. Instruct users on proper stapling techniques and handling.	Satisfactory	Minor	Rare	Acceptable	
Hot Glue Gun: Burns from hot glue, especially if mishandled or unattended.	Provide heat-resistant mats or surfaces for setting down hot glue guns (adult use only). Ensure an adult operates the glue gun at all times.	Satisfactory	Moderate	Unlikely	Acceptable	

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