

Risk Assessment and Risk Management Record

School/Youth Group	<u>Gwladys Street Primary and Nursery</u>	Learning Activity	<u>Science Risk Assessment</u>
Group Leader	<u>A M Berry</u>	Other Staff	<u></u>
Group Size	<u></u>	Supervision Ratio	<u></u>

This Risk Assessment is based on advice and guidance published by the Government and the Department of Education on 2nd July 2020

This Risk Assessment is not an exhaustive list and therefore common sense should be used at all times during the COVID-19 pandemic

Please also read alongside this document Safer Working Practices and Covid-19 Appendix which can be found <https://www.gov.uk/guidance/safer-public-places-urban-centres-and-green-spaces-covid-19/7-appendix>

Amendments will be written in red alongside each section to ensure that the policy is read fully

Pupils and Staff to wash hands on regular basis.

Wash hands thoroughly for 20 seconds with running water and soap and dry thoroughly.

Ensure hand washing also takes place when visiting the toilet and if coughing/ sneezing into hands.

IDENTIFYING AND ASSESSING THE RISKS	RISK LEVEL	CONTROLS FOR MANAGING THE RISKS	REMAINING RISK
High/Medium/Low			
<p>For risks relating to exercise and health activities please refer to PE risk assessment.</p> <p>For activities linking to food or construction etc please refer to DT risk assessment.</p> <p>For activities completed in school garden or pond please refer to specific School grounds risk assessment.</p>			

For activities completed off site please ensure an independent risk assessment is carried out.

Humans			
<p>Topic: Alcohol, drugs and medicines Dangers associated with medicines, tablets, solvent, alcohol, tobacco and everyday substances</p>	(Low)	<p>Discuss that pills can look like sweets and solvents like water or everyday drinks.</p> <ul style="list-style-type: none"> • Discuss why it is important not to take other people's prescribed medicines. • Never use any substance within school for these lessons unless using the sealed demonstration box. • Children and adults advised never to taste or smell unknown substances as this can put health and danger. 	<p>Involve children in process of agreeing potential dangers.</p> <p>Only use resources purchased from reputable companies which are for teaching and learning purposes only.</p> <p>Any children with allergies to cleaning fluids to watch the demonstration.</p>
<p>Topic: Organs • Transfer of infections. • To pupils with medical conditions when carrying out pulse investigation.</p>	(Low)	<ul style="list-style-type: none"> • Use posters, pictures or video clips rather than dissect organs. • Disinfect the ear pieces of stethoscopes using, for example, freshly diluted Milton. • Identify any pupils with medical conditions, including those with respiratory problems. 	
Plants			
<p>Topic: Plants & Living things.</p> <ul style="list-style-type: none"> • Pupils and staff may experience an allergic reaction • Poisonous berries and fungi. • Contaminated soil (see general information below). 	(Medium)	<p>Display common poisonous species and instruct pupils as to hazards.</p> <ul style="list-style-type: none"> • Cover all cuts and grazes. • Use sterilised soil or potting compost for planting seeds. • Wash hands after touching plants and soil. • Wear plastic gloves. • Warn pupils of dangers of hand, eye and mouth contact. 	<p>Identify cause of an allergic reaction and remove from the pupil – seek medical advice in the event of a severe reaction.</p> <p>Involve pupils in the process of agreeing any precautions for the activity.</p>

<p>Topic: Microorganisms</p> <ul style="list-style-type: none"> • Contamination with other food stuffs. • Allergic reactions. • Explosion caused by build up of gases when growing yeast. 	<p>(Medium)</p>	<ul style="list-style-type: none"> • Symptoms of an allergic reaction include: wheezing, coughing, sneezing, skin rash, skin reddening, itching, sweating, runny noses, runny eyes. <p>SYMPTOMS OF COUGHING SHOULD ALWAYS FOLLOW COVID 19 PROCEDURES</p> <ul style="list-style-type: none"> • Some plants are known to be toxic and have poisonous seeds. Staff to point these plants out and warn of the potential dangers • Some species of plants are protected and should not be taken from their natural habitat. • Garden tools can be dangerous if not regularly checked, eg: for loose handles and broken parts Staff to model how to use tools appropriately and safely. • Soils may be contaminated with pathogens such as toxocara and tetanus. • Most soils are contaminated with parasites and pathogens, particularly as a result of animal fouling. Animal fouling to be removed by an adult wearing appropriate clothing and dispose of appropriately. • Compost from garden centres is sterilised and should be used in preference to local soils if the risks are thought to be high or to minimise risks. <ul style="list-style-type: none"> • Wash hands with soap and water before and after. 	<p>If at any point a child wipes face, digests part of a plant, gets compost in eyes etc, medical assistants is required immediately. Digestion of plants – Call Ambulance.</p> <ul style="list-style-type: none"> • Identify cause of an allergic reaction and remove from the pupil – seek medical advice in the event of a severe reaction • In the event of a spillage, teachers must cover the
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		<ul style="list-style-type: none"> • Cover cuts and grazes. • Keep cultures, such as mouldy bread and other foodstuffs, in sealed containers and dispose of with normal school waste without unsealing when finished. • Keep away from other foodstuffs (such as in a fridge) to avoid contamination • Containers used for growing yeast should only be loosely plugged with cotton wool. • Wear plastic gloves. • Tell pupils they must not make hand, eye and mouth contact. • Symptoms of an allergic reaction include: wheezing, coughing, sneezing, skin rash, skin reddening, itching, sweating, runny noses, runny eyes. • There is a legal requirement under the Control of Substances Hazardous to Health (COSHH) Regulations (1999) to carry out an assessment of risks associated with microbiological hazards whenever pupils are involved with microbiology. See page 4 of CLEAPSS L190 for further guidance. 	<p>surface with a strong disinfectant for 30 minutes and then wipe up wearing gloves.</p> <ul style="list-style-type: none"> • Spillages on skin or clothing should be washed immediately with soap and hot water.
Electricity			
<p>Use of batteries</p> <ul style="list-style-type: none"> • Minor burns. • Damaged skin from leaking batteries (acid burn). • Short circuiting and fire. 	<p>(Low)</p>	<ul style="list-style-type: none"> • Teach children about battery safety, do not put in mouth for any reason. • Do not cut open any battery. • Never put them in an oven or microwave. • Do not put them in the bin. • Store batteries and equipment correctly. • Rechargeable batteries should not be used for 	<ul style="list-style-type: none"> • If a burn is sustained, including acid burns – submerge affected area in cold water for a minimum of 10 minutes. Seek medical attention immediately.

<p>Topic: heating Materials using Electrical Source.</p> <ul style="list-style-type: none">• Burns or scalds• Tripping over wires and leads.	<p>(Medium)</p>	<p>circuit work.</p> <ul style="list-style-type: none">• Rechargeable batteries may explode if dropped in water.• Do not use car batteries or accumulators with young children.• All power supplies must meet UK regulations.• Closed circuits must never be used.• Leaking batteries should be discarded of safely by an adult. <p>Use oven gloves to remove containers from heat sources.</p> <ul style="list-style-type: none">• Use adult supervision.• Turn handles inwards.• Indicate when cooker is switched on, such as large hot sign.• Turn off appliance immediately after use.• Teach pupils to pull clingfilm from the furthest edge of the container towards themselves so as to allow the steam to escape.• Avoid re-heating liquids that have already been boiled in microwave ovens. Let heated liquids stand in the microwave before use• Melt materials such as foods or wax indirectly, such as over a saucepan of hot water.• Teach pupils the procedure for dealing with burns.• Ensure leads are tucked out of the way to prevent accidents.• Consider the height of the cooker in relation to height of pupils when assessing whether a pupil can remove containers from cooker, etc.• Use low melting point wax, such as blocks sold	<ul style="list-style-type: none">• Run the burn under cold water for a minimum of 10 minutes. Seek medical advice immediately.
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		Materials	
<p>Topic: Materials testing for strength/hardness/flexibility.</p> <ul style="list-style-type: none"> • Fragments from brittle plastics causing cuts and eye injuries. • Dust from polystyrene causing breathing problems. • Sharp, jagged edges if materials break, causing cuts. • Broken glass causing cuts. • Heavy masses falling and damaging feet. • Splinters from wood. • Whiplash injuries from breaking wires or elastic bands, etc, under tension. 	<p>(Low)</p>	<ul style="list-style-type: none"> • Wear goggles if testing strength or if there is the risk of brittle plastic breaking. • When squashing rigid materials use a vice or G-clamp. • Wear strong gardening gloves to protect hands when testing rigid materials. • Avoid glass • Warn pupils of the dangers of breaking wires and elastic bands under tension. • Wrap broken glass in newspaper and place in a dustbin (not waste paper bin) and liaise with cleaning staff. 	
<p>Topic :Rocks & Soils</p> <p>Fragmenting rocks.</p> <ul style="list-style-type: none"> • Contaminated soils (see general information below). • Injury due to damaged gardening tools. 	<p>(Low)</p>	<ul style="list-style-type: none"> • Wear goggles if there is a risk of rocks fragmenting. • Wash hands following the handling of soils. • Use sterilised compost. • Cover cuts and broken skin. • Wear gloves when using tools and un-sterilised soils. • Warn pupils of the potential hazard of contaminated soils and the importance of not touching eyes and mouth when handling soils. • Check for loose handles and broken parts on gardening tools Staff to model safe use. • Rinse tools after use and regularly wash with disinfectant solution. • Soils may be contaminated with pathogens such as toxocara and tetanus. 	<ul style="list-style-type: none"> • Identify the cause of an allergic reaction and remove from the pupil – seek medical advice in the event of a severe reaction.

<p>Pupils and staff may experience an allergic reaction to different substances.</p> <ul style="list-style-type: none"> • Lemon juice and vinegar will sting if it gets into a cut . • Because carbon dioxide is released during the reaction between vinegar and sodium bicarbonate, and between lemon juice and baking powder, placing a thumb over the end of a container and shaking may lead to the container breaking or exploding. • Mixing unknown substances. • Inhalation of dust or powders <p>Topic: The Human body and senses</p>	<p>(Low)</p>	<p>with unknown hazards, therefore use common combinations when doing this: lemon juice and baking powder, vinegar and sodium bicarbonate, cement and water, plaster of Paris and water.</p> <ul style="list-style-type: none"> • Use cooking ingredients when mixing substances. • Use small quantities of powders to minimise the need for dust masks and safety goggles. • Symptoms of an allergic reaction include: wheezing, coughing, sneezing, skin rash, skin reddening, itching, sweating, runny noses, runny eyes. • Because a gas is often produced when substances are mixed, the contents in a container may overflow, so have paper towels to hand. • Washing powder and dishwasher powder are often highly irritant and would not be recommended for mixing. Look for hazard symbols on packs . • Plaster of Paris generates heat when mixed with water. • Some children have an allergic reaction to some food colouring/colourants <ul style="list-style-type: none"> • Always check pink forms to see what children are allergic to. All precautions to be taken to ensure these children do not come into contact with such substances. • Smell - When using liquids for senses topic to smell, only use cinnamon sticks, garlic or onion powder, red, cider and white vinegar, vanilla, peppermint, mixed spices, mixed 	<p>Identify cause of an allergic reaction and remove from the pupil – seek medical advice in the event of a severe reaction.</p>
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		<p>herbs,, cocoa AND lemon essence.</p> <ul style="list-style-type: none">• DO NOT USE MAN MADE CHEMICALS OR SUBSTANCES.• Taste – DO NOT USE ANY SUBSTANCES CONTAINING NUTS and other substances which children and adults could be allergic to.• ONLY USE ITEMS FIT FOR HUMAN CONSUMPTION• ALWAYS CHECK PINK MEDICAL FORMS• IF IN DOUBT, ASK A MEMBER OF THE SLT OR SCIENCE COORDINATOR FOR ADVICE.• Hearing – Select sounds which will not harm hearing.• Advise children NOT to get too close to the sound.• Do not play the sound directly into the ear.• Advise children and adults NOT to shout into ears.• STAFF ARE RESPONSIBLE FOR THEIR OWN ACTION IF THEY DO NOT FOLLOW SCHOOL PROCEDURE OR SEEK ADVICE. <p>Touch – see plants guidelines Only use objects which will not cause harm.</p> <p>Sight – Advise children and adults NOT to look directly into lights or the sun.</p> <p>During eclipses, follow Government advice and DO NOT take part in activities unless permission has been sought from SLT and parents.</p>	
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Forces			
<p>Topic: Pushes and pulls</p> <p>Young children swallowing magnets.</p> <ul style="list-style-type: none"> • Flying objects hitting pupils. • Cuts from changing the shape of objects by squashing, bending or twisting. <ul style="list-style-type: none"> • To pupils with respiratory problems when blowing bubbles, balloons, etc • Inhalation of bubble mixture • Trips and falls due to moving objects. 	(Low)	<ul style="list-style-type: none"> • Warn pupils not to put magnets near or in mouths. • Teach pupils to look out for others when exploring moving objects and also know how to carry out the activity safely. • Consider whether activities using flying objects would be best carried out indoors or outdoors. • Avoid using brittle materials to test. • Wear gloves if there is a risk of cuts when changing the shape of objects. See Hazard Card Sc3.5. • Identify pupils with medical conditions, including those with respiratory problems. • Ensure inhalers are readily available. • Teach pupils to blow rather than suck when exploring bubbles. • Ensure that you choose a bubble mixture that will not harm pupils. 	<ul style="list-style-type: none"> • Wash any small cuts and cover. • Adults dealing with cuts should wear protective gloves, use disinfectant to clear spillages and thoroughly wash their hands after contact.
<p>Topic: Magnets & Springs</p> <ul style="list-style-type: none"> • Irritation of skin and eyes when using loose iron filings. • Damage to toes from falling objects such as kilogram masses. • Injuries to eyes and face from snapping materials when overstretched. 	(Low)	<p>Iron filings must be placed in a sealed container.</p> <ul style="list-style-type: none"> • Wash hands after contact with loose iron filings • Raise pupils' awareness of effect of falling objects. Place a box containing soft, absorbent material to cushion falling objects. • Eye protection must be worn when there is a risk of snapping or overstretching materials. • Loose iron filings are difficult to remove from magnets. • Iron filings can be purchased in sealed 	

<p>Topic: Forces</p> <ul style="list-style-type: none"> • Friction burns. • Injury to fingers if exploring bicycles. • Injury from moving or flying objects. 	<p>(Low)</p>	<p>containers.</p> <ul style="list-style-type: none"> • Spring-based instruments, including home-made Newton meters, can be dangerous if suddenly released under tension. • Stronger meters, which might be used to measure a pupil's strength, must be firmly anchored with plenty of clear space around the pupil. <ul style="list-style-type: none"> • Tell pupils that friction generates heat. • Allow plenty of space for activities involving moving objects. <ul style="list-style-type: none"> • Ensure hanging structures, such as pulleys, are firmly fixed. • Limit the size and load of moving objects. • Teach pupils to aim away from each other when testing flying objects and projectiles. • Naked flames must not be used for hot air balloons. • When releasing objects from a height, ensure pupils stand on secure structures, such as physical education boxes, rather than classroom furniture. • It is dangerous to use hand-held electrical appliances near water. When testing movement of boats, use battery powered fans. • Activities involving flying things, such as kites, hot air balloons, catapults, water rockets, paper aeroplanes, etc, often require a large space and require close supervision. <ul style="list-style-type: none"> • Hot air balloons should be filled with hot air from a hairdryer 	<p>In the event of a burn – flood affected area with cold water for at least 10 minutes. Seek medical attention immediately.</p>
<p>Light & Sound</p>			

<p>Topic: Light</p> <ul style="list-style-type: none"> • To eyes when looking at very bright light sources. • Burns from naked flames. • To pupils with respiratory problems, such as asthmatics. • Skin burns from focusing lens on the skin in sunshine 	<p>(Low)</p>	<p>Make pupils aware of the dangers of looking at very bright lights.</p> <ul style="list-style-type: none"> • Teach pupils that they should never look directly at the Sun, or through binoculars, telescopes, prisms or lens • Ensure there is sufficient supervision. • Tell pupils to keep away from naked flames. • Identify pupils with medical conditions, including those with respiratory problems. • Ensure inhalers are readily available. • Ensure room is well ventilated. • Use a snuffer to extinguish candles. • Fix candles or night lights on a stable base and place in a sand tray. • Use safety matches. • Tie back long hair and secure loose clothing, such as at the wrist, when using candles or night lights. • Pupils should be taught not to sit down when using candles, so they can move more quickly if there is an accident. 	<ul style="list-style-type: none"> • In the event of a burn – flood affected area with cold water for at least 10 minutes. • If a pupil suffers an asthma attack – ensure they keep taking their inhaler until symptoms subside (it can be taken up to 30 times if necessary). Seek medical attention immediately.
<p>Topic: Sound</p> <ul style="list-style-type: none"> • Damage to hearing from excessive sound close to ear. • Injuries caused by breaking or flicking materials. • Damage to teeth from vibrating tuning forks. • Cross-infection from shared equipment.. 	<p>(Low)</p>	<p>Instruct pupils not to shout into the trumpet or diaphragm ends of stethoscopes or tubes.</p> <ul style="list-style-type: none"> • Use robust materials or those designed specifically for musical activities which are unlikely to fracture when exploring sources of sounds. • Teach pupils to avoid contacting a vibrating tuning fork with their teeth or glass objects. • Any equipment which is placed into the mouth or ear should be disinfected after each use by a pupil. 	

For activities outside of those suggested above please ensure an additional risk assessment is carried out.

