

A	Date: September 2022	School Uplands Junior School	Team S Webster Smith Head teacher J Hawkins Science Lead ?? Health and Safety Lead	Location: Wolverhampton
	Review: September 2023		Assessor: S Webster Smith	Manager: S Webster Smith

B Assessment of Risk for Science				
C	List of Hazards here	List groups of people at risk	List existing controls	Risk level
1	Use of Chemicals	Pupils Staff	<p>In general, there are few risks to using chemicals in Primary Science due to pupils only encountering small quantities of kitchen and other chemicals during specific topics.</p> <p>If chemicals are used however, the following guidelines should be followed:</p> <ul style="list-style-type: none"> - Use the smallest amount and most dilute chemical that will meet educational aims. - Reduce number of pupils involved if supervision might be an issue or bring in extra supervision. - Consider space and layout of work area. - Carry out activity as a demonstration rather than as a class practical. - Brief support staff on possible hazards and remind them of emergency procedures. - Prohibit eating and drinking in science lessons. - Ensure children wash their hands thoroughly and do not skip the process. - Check that no pupils have food allergies that may be triggered by contact with chemicals (materials) used. - Keep chemicals in properly labelled containers. Never use old food or drink containers to store chemicals. - Only keep small quantities sufficient for needs. - Keep a record of all hazardous chemicals stored. - Store chemicals with hazard symbols securely and keep safely away from children while in use. - Label all chemicals and do not decant them into other, unlabelled containers. - Hazardous substances should be used only where there is not a safer alternative. - Dry spills can usually be swept up, wrapped and placed in the normal refuse, but check details for hazardous materials. Most wet spills can be mopped up quickly with paper towels, cloths or a mop, then diluted in water and poured away, preferably down a toilet whose outlet goes directly into the drainage system. 	Low



- Have a supply of clean water available whenever work is carried out that may result in burns or injuries to the eyes.
- Eye protection - It is unusual for a Primary Science activity to require eye protection. Consider whether the activity is appropriate for Primary schools. If in doubt, call the CLEAPSS Helpline on 01895 251496.
- Understand the hazard warning symbols on containers and follow the instructions. The hazard warning symbols changed recently to international symbols and are being introduced throughout Europe from 2010 to 2015. Some symbols are similar, but there is no single word describing the hazard. Examples of the new symbols, with descriptions provided by CLEAPSS from left to right, are provided



For more information please see the 'Using Chemicals Safely' document (CLEAPSS - G5p).



2	Heat sources	Pupils Staff	<p>Several practical activities require the use of heat. The following are suitable and acceptable sources but must be closely supervised by an adult:</p> <p>Hot Water/Hot Water Bottles Water from a kettle or water heater should be cooled before use to no more than 50 °C. Use a ‘spirit’ thermometer to test this. Mercury thermometers are not suitable for use in Primary schools.</p> <p>Tea Lights Place securely in a metal tray, e.g. baking tray or tin lid filled with sand.</p> <p>Mains Electric Rings E.g. Baby Belling stoves - follow the same strict safety precautions as for cooking activities.</p> <p>Hairdryers Do not bring hairdryers in from home because they may not have been constructed to the same standards as those intended for use in schools. Hairdryers available from school suppliers are thoroughly tested beyond the requirements for domestic hairdryers.</p> <p>If a heat source is used, the following guidelines should be followed:</p> <ul style="list-style-type: none"> - Ensure all heating activities take place under close adult supervision. - Warn pupils not to lean across the table in case they come into contact with the flame/hot object. - Combustible materials should be removed. - Never leave a naked flame unattended. Dispose of matches carefully. - Long hair and loose clothing must be tied back. - Do not allow lit candles to be carried around. - Pupils should stand for the activity, so that they can move away quickly in case of an accident. <p>Spirit burners, picnic stoves and other bottled gas devices, hot-air paint strippers and Bunsen burners must not be used. Warn pupils about hazards involved, e.g. hotplates may be hot without appearing so.</p>	
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3	Animals in Primary School	Pupils Staff	<p>Proper planning regarding the safety of the children and care of the animal is essential before deciding to keep/bring animals into school.</p> <p>If intending to bring or keep an animal in school, the relevant CLEAPSS documents below should be consulted:</p> <ul style="list-style-type: none"> • 'Bringing Pets and Other Animals into Schools' (PS 55) • 'Small Mammals' (L52) • 'Housing and Keeping Animals' (L56) • 'Incubating and Hatching Eggs' (L71) • 'Aquaria in Primary Schools: Electrical Safety' (L124) • 'Giant African Land Snails' (L197) • 'Bees and Beekeeping in Schools' (PS87) <p>Where animals are brought into school for a short period the following guidelines should be followed:</p> <ul style="list-style-type: none"> - Liaise with parents when pets are brought in to school to ensure the particular animal is suitable for the particular class group. - Cover cuts and abrasions on exposed skin. - If animals run free on the floor or on tables, surfaces must be disinfected afterwards. - Pupils and staff must wash their hands before and after handling animals. Pupils should wash hands in the classroom so that staff can be sure that hand washing takes place. - Animal wastes must be disposed of hygienically and any contaminated surfaces cleaned and disinfected. - Children known to have allergic reactions to animals must have restricted access to animals that may trigger a response. Similar considerations apply to children who may be phobic about certain animals. 	Low
4	Use of plants in Primary Schools	Pupils Staff	<p>The main hazard associated with the use of plants is that many are poisonous or irritants. Some pupils may be particularly vulnerable, e.g. those with allergies or asthma.</p> <p>If plants are used in school the following guidelines should be followed:</p> <ul style="list-style-type: none"> - Teach children to avoid touching their eyes when handling plants. - Teach children never to taste any part of a plant unless they are certain that it is safe. - Warn children not to eat attractive looking fruits and seeds and teach children to always wash their hands after handling plants. -Ensure that the plant is not poisonous. - See also 'Plants for Classrooms' (CLEAPSS document G42). 	Low



5	Micro-organisms	Pupils Staff	<p>The main hazard associated with work with micro-organisms is infection through inhalation, ingestion or entry through the eyes or cuts to the skin.</p> <p>Only the following microbes that are not known to be hazardous to humans should be used:</p> <ul style="list-style-type: none"> - Yoghurt / Baker's and brewer's yeast / Mould gardens and compost / Cheese-making bacteria / Edible mushrooms <p>Low 5</p> <ul style="list-style-type: none"> - Growing microbes on Petri dishes should not be carried out in Primary schools as this requires special skills, materials and equipment that Primary schools do not possess. - Do not use microbes from natural materials such as soil or pond water. Also avoid obviously risky sources such as rubbish from dustbins, rotting meat or fish, human body fluids or the remains of animals. - Staff and pupils must always wash their hands thoroughly with soap and water after working with microbes. - Hands must also be washed before any work in which microbes are used to prepare food that will be tasted. Hands should be dried hygienically using disposable paper towels rather than a hand towel. - Cover all cuts and abrasions on staff or pupils before starting work with microbes. - All material used for growing microbes should be in covered containers (bottles, jars, cartons with lids, open containers covered with Clingfilm). - When growing yeasts, the container should not be completely sealed to allow carbon dioxide to escape. - Only grow microbes using the natural materials on which they normally grow. - Pupils must never put anything into their mouths during this work. - Mould cultures should be dated. - If spills from microbe cultures occur, wipe them up immediately. Use disinfectant, wearing plastic or rubber gloves and guard against splashes into the eyes. - For disposal, treat used cultures with disinfectant (hypochlorite or Virkon) before the remains are disposed of. Leave to soak overnight and preferably for 24 hours ensuring pupils cannot come into contact with the disinfectant. See also 'Studying Micro-organisms in Primary Schools' (CLEAPSS document L190) and guidance on Infection Control on Schools' PeopleNet. 	Low
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6	Viewing the Sun	Pupils Staff	<p>The main hazard is the sun's rays causing eye damage or fire if shone through convex lenses.</p> <ul style="list-style-type: none"> - Teach pupils never to look directly at the sun. - Be aware that the focusing of the sun's rays with a convex lens can cause a fire. Lenses, especially large ones, should be stored out of direct sunlight. - - Teach pupils using binoculars and telescopes to take care not to look directly at the sun, even accidentally. - Special care should be taken when viewing an eclipse of the sun. See also 'Viewing the Sun' (CLEAPSS document PS17) 	Low
7	Electricity	Pupils Staff	<p>The main hazards associated with electricity are electric shock, burns and fire.</p> <p>If using electricity, the following guidelines should be followed:</p> <ul style="list-style-type: none"> - Teach pupils the dangers and emphasise that they must never experiment with mains electricity. - Teachers must decide whether they consider pupils competent to plug in and/or switch on mains electricity. - All mains plugs must have an insulated sleeve on the live and neutral pins. Any plugs not of this type should be changed by a competent person. - Ensure that the socket is switched off before unplugging or plugging in electrical appliances. - All portable electrical equipment with a mains electrical plug must be tested, usually annually. Any frequently used equipment not tested within the last twelve months should not be used. - Before use equipment should be inspected visually for damage to the plug casing, frayed leads, naked wires or exposed inner insulation. The cable should be securely attached. Any equipment not passing this test should be removed until repairs have taken place and it has been retested. - The use of adapters is not recommended. There should be sufficient sockets to supply the portable appliances used. Where, exceptionally, more outlets are required, a purpose made 3 or 4 way trail type adapter may be used as a temporary measure. - Keep trailing leads tidy and away from water and walkways. Use cabling protectors to prevent people tripping over them. <p>Batteries or Low Voltage Power Supplies</p> <ul style="list-style-type: none"> - Rechargeable batteries can be used, but if short circuited they can become very hot. Use only the recommended charger; the charging should only be carried out by a member of staff. High capacity, rechargeable batteries are not recommended. - Do not mix rechargeable and non-rechargeable cells. - Do not allow pupils to cut open batteries as the contents can be corrosive and poisonous. - Tiny batteries, e.g. those used in watches, are not suitable for use in Primary teaching activities. - - Low voltage power supplies (up to 12 volts) are a suitable alternative to batteries 	Low



D	Any additional controls		E	To be completed by the manager		
	Additional controls required	Action to be taken		By whom	Completion date	Task completed (signed and dated)

F	Once additional controls are implemented, what will the overall risk level be:	Risk assessment signed off by:	
	High Medium Low	Signature: Date:	

