

Elementary Science and STEM Student Safety Contract



Purpose

Science is a hands-on laboratory class. You will be doing many laboratory activities which require the use of science equipment, tools, and even some chemicals. Safety in the science and STEM classroom is the #1 priority for students, teachers, and parents. To ensure a safe science classroom, a list of rules has been developed and provided to you in this student safety contract.

These rules must be followed at all times. Two copies of the contract are provided. One copy must be signed by both you and a parent or guardian before you can participate in the laboratory. The second copy is to be kept in your science notebook as a constant reminder of the safety rules. Refer to these rules often to make sure you are as safe as you can be in the STEM lab.

You always need to have your teacher's consent (approval) before doing science experiments and STEM activities. You need to make sure that you follow these safety guidelines carefully in your classroom. Make sure that your teacher shows the proper use of science equipment and hand or power tools (if applicable) and gives you detailed instructions on how to use these safely. If you are unsure about anything – Stop and Ask the Teacher.

General Rules:

1. Always conduct yourself in a safe and responsible manner while in the science classroom or STEM lab. This is the most important thing that you can do! This means being safe, identifying any unsafe things, notifying the teacher about a spill or injury and being aware of your surroundings.
2. Always follow the instructions for your science and STEM activity. Read the directions and make sure you understand them. Follow instructions that are both written and verbal.
3. Always wear your goggles and other protective equipment such as a lab coat or gloves when needed. Please keep your goggles or safety glasses on until your teacher instructs you to remove them. You must always wear goggles when doing activities with chemicals or with liquids, projectiles, or other activities that your teacher tells you to wear them. Wear an apron or lab coat if needed. Your teacher will instruct you on what PPE you need to use for the activity.
4. Do not start any activities or use any equipment or tools without approval from your teacher. You should not touch any science equipment or tools without permission. Only use these items under supervision and only at the appropriate time.
5. Keep your work area neat and tidy. Being organized is much safer than having clutter. Ensure that you do not have extra binders, bookbags, or other items in your work area. These extra materials should be stored in your desk until needed. If using extension cords, be mindful of the tripping.
6. You should know where the emergency safety equipment is located in the room (Fire Extinguisher / Fire Blanket / First Aid Kit / Fume Hood) as well as what to do in case of a fire. Make sure that your class practices a fire drill at least twice a year.
7. When using chemicals, even household items like baking soda, vinegar, sugar and salt, be sure to follow the directions carefully. Do not mix chemicals together unless instructed by your teacher. Make sure that you wear your goggles at all times when handling chemicals products. Do not taste any chemicals!
8. Do not pour used chemicals down the sink drain. Follow the directions from your teacher. There are specific methods used for different types of chemical disposal that are approved and environmentally sensitive.
9. Keep your hands away from your face, hands, eyes, ears and mouth when handling chemicals, dissection specimens or live plants and animals. Wash your hands with soap and water after the completing the science and STEM activity. Clean your work surface area and return the science equipment and tools to the appropriate storage location once finished.
10. When using knives, scissors or other sharp instruments, when moving them, keep them facing downwards with the point away from you. Be mindful to always cut away from your body and to have a firm grip on the instrument being used. You should never try to catch a falling sharp instrument!

Tool Safety Rules (Hand and Power)

Once students have an understanding of each tool, a discussion needs to take place as to how they will be used so that everyone remains safer. These rules need to be typed in large font and displayed in the area of the room where students will be using the tools. Before students work with tools during each project, the safety rules need to be reviewed and the tools need to be cleaned and sanitized prior to student handling.

Students need to realize you are serious about the rules, and that if rules are not followed during a STEM engineering, construction, inquiry or solution building activity, the child/children should not be allowed to use the tool/tools for the rest of that day. The use of STEM tools and equipment is valuable to learning but safety is paramount. Instilling a healthy respect for process and rules to keep students safe will be applicable in the real-world, so proper modelling is critical.

Before working in any laboratory where hand and power tools are being used, students must review the rules below and agree to abide by these rules. Parents are asked to review these rules and emphasize to their child the importance of behaving in an appropriate manner in any laboratory where hand and power tools are in use. Students and parents are asked to sign this document and return it to their classroom teacher.

11. Always understand and follow directions when using any power tool. Pay attention to the name plate on the tool and any warnings that may be listed on the tool itself.
12. Always wear the appropriate protective equipment, including safety goggles or safety glasses with side shields. Dust masks should be worn with tools that will produce dust, and hearing protection should be worn if a tool is to be used for a prolonged period of time.
13. No loose fitting clothing, neckties, jewelry or dangling objects of any kind should be worn since these are hazards to the student and their friends.
14. Tie long hair back and out of the way. This is a safety hazard.
15. Closed toed shoes, preferably with non-slip soles should be worn. Sandals and flip flops are not to be worn when hand and power tools are in use.
16. Hand and power tools should not be used if you are tired, distracted, ill or under the influence of drugs or alcohol. Even over the counter drugs, such as cold medicine can negatively affect your ability to concentrate when you are using hand and power tools.
17. Work areas should be clean before and after you work with tools to prevent debris being ignited by hot tools or sparks.
18. Work areas should have plenty of light. Students should not crowd around any tool when it is in operation.
19. Switches should be 'OFF' before any power tool is plugged in.
20. All guards should be in place and working before a tool is used.
21. Tools should be turned off and unplugged before adjustments are made.
22. Only accessories designed for a particular tool should be used.
23. Power tools should not be used in wet or damp conditions.
24. If a tool is damaged or not functioning properly it should not be used.
25. Any tool that is broken or damaged should be reported to your teacher so that it can be taken out of service.
26. Only heavy-duty extension cords should be used.
27. Only cutters and blades that are clean, sharp and securely in place should be used. Notify your teacher if you find some that are dull or chipped.
28. Students must behave appropriately in the laboratory. Any student failing to behave in an appropriate manner will be removed from the laboratory setting and disciplinary consequences will occur.
29. Take your time when you work and pay close attention to what you are doing. Being safe is your number one priority in the STEM lab.
30. Always use the right tool for the job.
31. Unplug, clean and store any tool that you have used in its proper place at the end of the period.

Agreement

Student:

I _____ have read the rules of Science Equipment, STEM and Safe Hand and Power Tool use and agree to abide by each and every rule.

Student's Signature

Date

Parent/Guardian:

I have reviewed the above set of rules with my child and will encourage him/her to abide by each rule so that they can operate safely in the laboratory.

Parent/Guardian Name

Parent/Guardian Signature

Date

Questions? Contact us at flinn@flinnsci.com | 800-452-1261 | flinnsci.com