

Safety in STEM Projects

Chemical Safety

- Work in an appropriate environment (e.g. lab, fume hood) with appropriate tools (e.g. clean glassware), including a sink for eye-washing
- Wear protective clothing, safety glasses, and tie back long hair, loose clothing
- Work on a clean surface
- Material Safety Data Sheets have info about chemicals or materials, including dangers and how to handle them safely. Look up any chemicals you work with at ccohs.ca/oshanswers/legisl/msdss.html
- Post your local Poison Control number in case you inhale or ingest chemicals.
- **Always have adult supervision when chemical safety is a concern**

Fire Safety

- Work in an appropriate environment, on a heat-resistant surface
- If you are working with an open flame, using flammable materials or a chemical reaction where heat is produced, make sure you have the correct fire extinguisher within reach
- Wear protective clothing, safety glasses, and tie back long hair, loose clothing
- **Always have adult supervision when fire safety is a concern**

Electrical Safety

- When working with an electrical current, even from a small battery, you should always know when the electricity is “on” or “live,” and how to shut it off
- Work on a clean, dry surface
- Wear protective clothing, safety glasses, and tie back long hair, loose clothing
- **Always have adult supervision when electrical safety is a concern**

Structural and Mechanical Safety

- When building something with dangerous moving parts (e.g. rotating, pinching, spinning), or it is large or heavy enough that it could hurt someone, you must make sure you or other people are safe when interacting with your design
- Wear protective clothing, safety glasses, and tie back long hair, loose clothing
- **Always have adult supervision when structural safety is a concern**

Biohazards

- When working with biohazards (e.g. bacteria, tissue samples, blood, blood products), you must work in an appropriate environment (e.g. lab, fume hood) and with appropriate tools (e.g. clean glassware)
- Wear protective clothing, safety glasses, and tie back long hair, loose clothing
- Post your local Poison Control number in case you inhale or ingest a biohazard
- This kind of project may also require an Ethics Review
- **Always have adult supervision when biohazards are a concern**



Remember: If something about your project feels unsafe, it probably is! Do not continue until you can do so safely.