LG 1: *Safety and Science Processes*

BIG Idea: To ensure the safety of yourself and those around you during hands on activities in science and to explore the scientific process.

Curricular Competencies:

- Evaluate their methods and experimental conditions, including identifying the sources of error or uncertainty, confounding variables, and possible alternative explanations and conclusions.
- Contribute to care for self, others, community and world through personal or collaborative approaches
- Collaboratively and personally plan, select and use appropriate investigative methods, including field work and lab experiments, to collect reliable data (qualitative and quantitative)

Content: Safety Rules, Methods for Lab procedures and write ups.

Assessment of Learning Standards:

FUNDAMENTAL (C/ C+)

I CAN:

- ☐ **Conduct** a lab safely
- ☐ **Identify** safety symbols
- ☐ **Identify** and use common lab equipment
- ☐ **Read** and follow a learning guide
- ☐ **Complete** a lab using a guided worksheet

ADVANCED (B)

I CAN:

- ➢ **Write** a complete lab write up
- ➢ **Design** and complete a lab with a partner

EXCEPTIONAL (A)

I CAN:

- ✓ **Accurately** identify parts of an experiment (qualitative data control etc.)
- ✓ **Write** a good hypothesis

LEARNING PATHWAYS

OPTION 1

Choose your own adventure:

Pick up a planning sheet from the Science Kiosk.

Create a plan, include what topics will be covered (box, circle and/ or checks)

Get teacher approval for your plan before beginning

Interview with your teacher for evaluation

- ☐ **Complete the Bag of Change lab in class. Complete a lab using the guided worksheet**
- ➢ **Complete a proper lab write up using the lab writing handout. Include 6 points in your conclusion**

OPTION 2

- ☐ Create a safety map of the SGH. Be sure to include all of the escape routes and equipment
- ☐ Choose a lab from your BC Science textbook. Add 10 relevant safety rules to those already suggested.
- ☐ Find a video on common science lab equipment. Make notes on 10 types and their uses. Reference your website.
- ☐ Complete the Bag of Change lab in class. Complete a lab using the guided worksheet
- ➢ Complete a proper lab write up using the lab writing handout. Include 6 points in your conclusion
- ➢ Work with a partner to design and complete a lab to test paper towel's ability to absorb water
- ✓ Accurately describe the control, the independent and independent variables, type of data and write a good hypothesis

OPTION 3

- ☐ Participate in hands on safety activity in class. Teacher Signature: _____
- ☐ Diagram or story of safety rules (ex. Lab gone wrong) with explanation. Include 15 IMPORTANT rules
- ☐ Complete the stations in class on different lab equipment.
- ☐ Complete the Bag of Change lab in class. Complete a lab using the guided worksheet
- ➢ Complete a proper lab write up using the lab writing handout. Include 6 points in your conclusion
- ➢ Work with a partner to design and complete a lab to test paper towel's ability to absorb water
- ✓ Accurately describe the control, the independent and dependent variables, type of data and write a good hypothesis

ASSESSMENT:
During a Great Hall Block, see your teacher with your demonstration of your learning for either an **interview** or for a test slip to write a **LG quiz** at the test center. **Note**: All written work needs to be attached to this LG.