

# List of Skills

## Science in Daily Life

- describe how similar procedures are used in both science class and in daily life
- describe how similar skills are used in both science class and in daily life
- describe how similar tools are used in both science class and in daily life
- explain what a “fair test” is and why it is important to use this when troubleshooting and testing everyday science problems
- ask questions that can be scientifically tested
- plan simple investigations
- conduct simple investigations
- refine simple investigations
- use appropriate lab equipment
- observe and record data using a data table
- observe and record data using a diagram
- observe and record data using a web
- observe and record data using a graphic organizer
- observe and record data using a computer
- assess data and use it to answer questions and draw conclusions
- communicate plans, observations, and results orally
- communicate plans, observations, and results in writing
- communicate plans, observations, and results using visual organizers
- develop research questions about a topic of personal interest
- investigate research questions about a topic of personal interest
- evaluate the investigation(s) done and suggest ways to improve the process for the next time
- discuss or explain how problem-solving uses scientific process skills
- discuss or explain how decision-making uses scientific process skills

## Properties of Common Materials

- recognize the symbols used to classify hazardous materials
- outline the hazards of using common materials in a safe way and in an unsafe way
- explain the properties of pure substances and mixtures
- describe the physical properties of common materials
- describe the chemical properties of common materials
- plan safe investigations of physical and chemical properties
- conduct safe investigations of physical and chemical properties
- use proper laboratory safety practices
- use proper disposal procedures for all chemical materials
- organize and record the observations from investigations using a chart
- organize and record the observations from investigations using a table
- organize and record the observations from investigations using a diagram
- organize and record the observations from investigations using a graph
- organize and record the observations from investigations using a science journal
- interpret the results of investigations
- communicate the results of investigations

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**Master 4**  
(continued)

- investigate the physical and chemical properties of the materials two similar products are made from
- compare the physical and chemical properties of two materials and relate these properties to how the materials are used
- research a product being investigated
- present a recommendation appropriate for someone interested in using the product that has been investigated

## **Staying Alive**

- describe how organisms stay alive
- relate structures that keep organisms alive to their function
- outline basic interactions between organ systems in complex organisms
- investigate how simple and complex organisms respond to their environment
- observe structures with microscopes
- relate a structure to its function
- use dissection to examine the relationship between the circulatory, respiratory, and digestive systems of a complex organism
- extract and interpret information from a variety of sources
- communicate observations, results, and information using a diagram
- communicate observations, results, and information using a graph
- communicate observations, results, and information in a group discussion
- communicate observations, results, and information using written work
- analyse how equipment and safe practices protect personal health and safety
- examine case studies of workplace environments to develop a checklist of safety practices

## **Electrical Circuits**

- describe basic electrical concepts and use the correct units of measure for each concept
- demonstrate an understanding that electrical energy can be converted into other forms of usable energy within an electrical circuit
- identify how household and workplace electrical devices operate to convert electrical energy to another form of energy
- use a variety of symbols to represent different components in electrical circuits
- formulate questions about circuits
- plan an investigation to answer questions about circuits
- carry out an investigation with circuits
- design, build, and test an electrical circuit
- conduct investigations using electrical materials, tools, and equipment safely
- measure and record the current and potential difference in simple circuits
- extract and interpret information from instructions and manuals
- communicate plans and results of investigations orally
- communicate plans and results of investigations in writing
- communicate plans and results of investigations in a graphic format
- identify the circuits and their components found in a house
- develop a logical checklist to troubleshoot an electrical device