



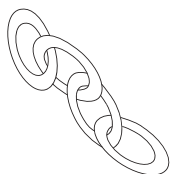
Home Economics/Industrial Arts Learning Outcomes Samples

- Home Economics: Food and Nutrition
- Home Economics: Human Development
- Home Economics: Clothing and Textiles
- Industrial Arts: Comprehensive Safety
- Industrial Arts: Comprehensive Measurement
- Industrial Arts: Planning and Design
- Blank Learning Outcome Templates



LEARNING OUTCOMES SAMPLES

This document has been designed to allow for maximum flexibility to provide Middle Years students in Manitoba with the opportunity to experience the hands-on skills development, knowledge, and resources available in Home Economics/Industrial Arts education. Middle Years education can be categorized from Grades 5 to 8 or Grade 6 to Senior 1, depending on the educational setting. It is for this reason that four levels of learning outcomes (exploratory, introductory, intermediate, and advanced) that are not grade-specific have been outlined in this document. The four levels provide an opportunity for each school to select the time allocation that suits the needs of their learning environment to incorporate Middle Years Home Economics/Industrial Arts programming into their educational plan. The inclusion of Home Economics/Industrial Arts education in the Middle Years involves the implementation of the three Cs—*Commitment* to Middle Years Home Economics/Industrial Arts education by *Careful* and *Cooperative* timetabling.

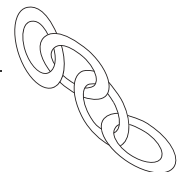


Home Economics: Food and Nutrition

General Learning Outcome: To incorporate a variety of foods from each food group every day in one's diet to provide the energy necessary to lead an active life.

Former Major Objective: To relate the selection of foods to the needs of individuals. (Home Economics 7-9, Manitoba Education: 1985, 45)

Exploratory Specific Learning Outcome(s)	Introductory Specific Learning Outcome(s)	Intermediate Specific Learning Outcome(s)	Advanced Specific Learning Outcome(s)	Suggested Instructional Approaches Refer to pages 49-54	Suggested Assessment Methods/Tools Refer to pages 55-56
<p>1. Identify the groups in Canada's Food Guide to Healthy Eating, including "Others."</p> <ul style="list-style-type: none"> • Grain Products • Vegetables/Fruit • Milk Products • Meats and Alternatives • Others • Combination Foods <p>2. Categorize food products into the four groups and "other" foods.</p>	<p>1. Identify the recommended ranges of servings for each food group for Canadians between the ages of four to adult.</p> <p>2. Determine the amount of food that is the equivalent of one or two servings from a list of food products.</p> <p>3. List and discuss age and gender factors that determine the number of servings.</p>	<p>1. Identify the leader nutrients associated with each food group.</p> <p>2. Determine the function of the nutrients in the body.</p> <p>3. List and discuss activity level and body size factors that determine the number of servings.</p>	<p>1. Compare and contrast various food guides:</p> <ul style="list-style-type: none"> • China Pagoda • Great Britain Food Plate • Canadian Vegan • American Food Pyramid • Canadian Northern Guide • Canada's Food Guide 	<ul style="list-style-type: none"> • Explicit teaching • Didactic Questioning • Jigsaw • Reading and Viewing for Meaning • Brainstorming • Discussion • Research 	<ul style="list-style-type: none"> • Checklists • Rubrics • Self-assessment • Presentations • Projects
<p>Suggested Learning Activity</p> <p>Grocery Bag Activity: categorize foods into groupings.</p> <p>Picture Card Activity: picture card sets available through Manitoba Milk Producers. Create a poster.</p>	<p>Suggested Learning Activity</p> <p>Personal food recall for one day to calculate the number of servings of food consumed.</p> <p>Determine personal goals/strategies to improve an area of the food guide that is not meeting the recommended daily serving amounts.</p>	<p>Suggested Learning Activity</p> <p>Taste Test: Processed snacks (fat/sugar/salt-based snacks) compared to snacks chosen from the Food Guide.</p> <p>Taste Test: Compare and contrast "light," "low sodium/fat" products, to regular product lines.</p>	<p>Suggested Learning Activity</p> <p>Divide class into groups to research and compare/contrast a guide/pyramid/pagoda/plate to the CFG for Healthy Eating.</p>	<ul style="list-style-type: none"> • Gallery Walk 	<ul style="list-style-type: none"> • Self-assessment • Peer Assessment • Projects • Written Assignments • Presentations • Journaling/Notebooking
<p>Process/Project</p> <p>Plan and prepare a breakfast that encompasses foods from three out of four food groups.</p>	<p>Process/Project</p> <p>Plan and prepare a lunch that encompasses foods from three out of four food groups.</p>	<p>Process/Project</p> <p>Plan and prepare a nutritious snack that encompasses food(s) from the food guide.</p>	<p>Process/Project</p> <p>Each group to plan and prepare a meal plan from one of the food guides/plates/pagodas.</p>	<ul style="list-style-type: none"> • Research • Gallery Walk 	<ul style="list-style-type: none"> • Self-assessment • Peer Assessment • Projects • Written Assignments • Presentations • Journaling/Notebooking

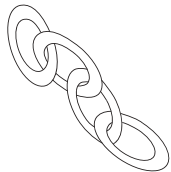


Home Economics: Human Development

General Learning Outcome: To recognize the importance of meeting basic needs and healthy personal development.

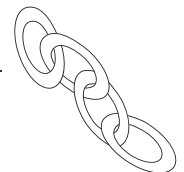
Former Major Objective: To gain an understanding of ourselves through the study of child development. (Home Economics 7-9, Manitoba Education: 1985, 37)

Exploratory Specific Learning Outcome(s)	Introductory Specific Learning Outcome(s)	Intermediate Specific Learning Outcome(s)	Advanced Specific Learning Outcome(s)	Suggested Instructional Approaches Refer to pages 49-54	Suggested Assessment Methods/Tools Refer to pages 55-56
<p>1. Identify the basic needs — Physical, Social, Intellectual, and Emotional</p> <p>2. Identify the people who facilitate meeting basic needs.</p> <ul style="list-style-type: none"> • Peer groups • Families • Coaches • Teachers, etc. 	<p>1. Describe the factors that enhance or inhibit the meeting of basic needs. For example:</p> <ul style="list-style-type: none"> • Families • Breakfast programs • Friends • Bullies • Government standards of food, health care, etc. • Disasters, etc. 	<p>1. Determine the connection between meeting basic needs and healthy personal development.</p>	<p>1. Analyze the special needs of people at various stages of their lives.</p>	<ul style="list-style-type: none"> • Guest Speaker • Didactic Questioning • Jigsaw • Concept Mapping • Admit/Exit Slips • Essays and Reports • Discussion 	<ul style="list-style-type: none"> • Reflection Logs • Self-assessment • Written Assignment • Quizzes
<p>Suggested Learning Activity</p> <p>Small-group discussions/brainstorming for ten people that students depend on, and why students depend on them. Classify the needs as physical, intellectual, social, or emotional.</p>	<p>Suggested Learning Activity</p> <p>Create a survivor game based on case studies.</p>	<p>Suggested Learning Activity</p> <p>Relate true and fictional stories of feral children (Amala and Kamala of India, the Gazelle boy of the Sahara Desert, etc. vs. Tarzan, Mowgli, Romulus and Remus, George of the Jungle), and compare the capabilities of feral children to those created in fiction, or to students themselves.</p>	<p>Suggested Learning Activity</p> <p>Plan activities that will help provide the basic needs for an elementary-aged or special needs student.</p>	<ul style="list-style-type: none"> • Explicit Teaching • Didactic Questioning • Problem Solving • Inquiry and Research • Gallery Walks • Primary Research • Focused Imaging • Discussion 	<ul style="list-style-type: none"> • Reflection Logs • Journaling or Notebooking • Rubrics
<p>Process/Project</p> <p>Create a word or photo collage of people who assist students to meet their different types of needs.</p>	<p>Process/Project</p> <p>Develop a class bulletin board featuring pictures, poems, media, articles, etc., that illustrate basic needs being met or requiring a further commitment.</p>	<p>Process/Project</p> <p>Survivor Games: What would you take with you on a 20-year round trip to Mars? On a life raft? View parts of films: Greystoke: The Legend of Tarzan, Lord of the Apes (1984), Castaway.</p>	<p>Process/Project</p> <p>Visit a special needs or elementary school classroom where students would lead or facilitate an activity.</p>	<ul style="list-style-type: none"> • Role Playing • Guides for Viewing • Problem Solving • Inquiry and Research • Admit/Exit Slips • Gallery Walks • Field Trips • Games 	<ul style="list-style-type: none"> • Self-assessment • Presentations • Portfolios • Rubrics



Home Economics: Clothing and Textiles

<p>General Learning Outcome: To demonstrate an understanding that assists the consumer to make educated decisions about textile products.</p> <p>Former Major Objective: To gain understanding which assists the consumer in making decisions about textile products. (Home Economics 7-9, Manitoba Education: 1985, 59)</p>					
<p>Exploratory Specific Learning Outcome(s)</p> <p>1. Identify differences between woven and knit fabrics.</p>	<p>Introductory Specific Learning Outcome(s)</p> <p>1. Demonstrate knowledge that fibres are the building block of fabric. 2. Demonstrate knowledge that there are two fibre categories: natural/synthetic.</p>	<p>Intermediate Specific Learning Outcome(s)</p> <p>1. Demonstrate knowledge of characteristics of fibres.</p>	<p>Advanced Specific Learning Outcome(s)</p> <p>1. Make decisions based on previous knowledge to select appropriate fabrics for specific end uses.</p>	<p>Suggested Instructional Approaches Refer to pages 49-54</p> <ul style="list-style-type: none"> • Didactic Questioning • Demonstration • Inquiry and Research • Observations • Gallery Walk 	<p>Suggested Assessment Methods/Tools Refer to pages 55-56</p> <ul style="list-style-type: none"> • Journaling and Notebooking
<p>Suggested Learning Activity</p> <p>Fabric grab bag</p>	<p>Suggested Learning Activity</p> <p>Dissect fabric into components: fibre to yarn process. Classify fibres into categories (natural/synthetic) by reading the fibre content labels on clothing.</p>	<p>Suggested Learning Activity</p> <p>Experiment with fabrics:</p> <ul style="list-style-type: none"> • burn test • absorption test • wrinkle test <p>Research activity: most commonly used fibres.</p>	<p>Suggested Learning Activity</p> <p>Select and assess the fabric that is selected for a specific end use.</p>	<ul style="list-style-type: none"> • Jigsaw • Inquiry and Research • Observations 	<ul style="list-style-type: none"> • Checklist • Quizzes or Tests
<p>Process/Project</p> <p>Select knit and woven fabric to create a textile product.</p> <ul style="list-style-type: none"> • bean bag project • book marks • pencil case 	<p>Process/Project</p> <p>Take students fabric shopping. Collect fibre content information from reading fibre content labels on items at home. Using a chart, classify items into fibre categories: natural/synthetic. Classify the findings through the creation of a chart.</p>	<p>Process/Project</p> <p>Match using prior knowledge: textile items to fabric with appropriate fibre content (e.g., nylon for carpeting).</p>	<p>Process/Project</p> <p>Match characteristics of fibres to the most appropriate end use in a project.</p>	<ul style="list-style-type: none"> • Field trip • Inquiry and Research • Problem Solving • Survey • Primary Research • Guest Speakers 	<ul style="list-style-type: none"> • Rubric: www.rubistar.4teachers.org • Demonstration/ Presentation • Checklists • Self-assessment • Peer Assessment • Journaling or Notebooking • Reflection

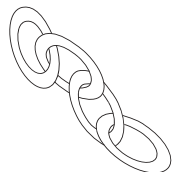


Industrial Arts: Comprehensive Safety

General Learning Outcome: To demonstrate safe practices with tools, machines, materials, and related processes.

Former Major Objective: To develop safety consciousness in the use of tools, machines, and processes, through a wide range of experiences related to the individual and to the production and servicing aspects of hobbies and industries. (Industrial Arts 7-9: Core Safety Objective in All Curricula, Manitoba Education: 1983)

Exploratory Specific Learning Outcome(s)	Introductory Specific Learning Outcome(s)	Intermediate Specific Learning Outcome(s)	Advanced Specific Learning Outcome(s)	Suggested Instructional Approaches Refer to pages 49-54	Suggested Assessment Methods/Tools Refer to pages 55-56
<ol style="list-style-type: none"> Identify and locate safety equipment/resources in the lab. <ul style="list-style-type: none"> Eye-wash station Signage Work zones Personal protective equipment WHMIS Identify and demonstrate safe lab practices. <ul style="list-style-type: none"> Behaviour/conduct Personal protective equipment Demonstrate safe use of tools and machines. 	<ol style="list-style-type: none"> State the hazards that are inherent in a production process. Define/interpret MSDS related to specific products used in the lab Identify and demonstrate safe lab practices. <ul style="list-style-type: none"> Behaviour/conduct Personal protective equipment Demonstrate safe use of tools and machines. 	<ol style="list-style-type: none"> Analyze hazards that are inherent in a production process. Identify environmental and workplace impacts on the use of hazardous materials. Identify and demonstrate safe lab practices. <ul style="list-style-type: none"> Behaviour/conduct Personal protective equipment Demonstrate safe use of tools and machines 	<ol style="list-style-type: none"> Determine and execute safe practices and procedures required for each process. Analyze the environmental impact of the use of hazardous materials. Simulate and react to a hypothetical hazardous situation. Identify and demonstrate safe lab practices. <ul style="list-style-type: none"> Behaviour/conduct Personal protective equipment Demonstrate safe use of tools and machines. 	<ul style="list-style-type: none"> Lesson Overview Demonstrations Guides for Reading, Listening, Viewing Field Trips Homework Inquiry Simulations Role Playing Brainstorming Problem Solving Discussions Cooperative Learning Groups Guest Speaker Peer Tutoring 	<ul style="list-style-type: none"> Reflection Journal Checklist Demonstrations Presentations Rubrics Peer Assessment Tests Quizzes
<p>Suggested Learning Activity</p> <p>Room map Review of safety manuals Hazardous symbol identification</p> <p>Process/Project</p> <p>Design and construct a safety poster. Construct a product with tools and machinery in accordance with safe work practices.</p>	<p>Suggested Learning Activity</p> <p>List potential hazards associated with a production process. Participate in lab inspection and complete checklist. Review a video that demonstrates safe handling procedures.</p> <p>Process/Project</p> <p>Construct a product with tools and machinery in accordance with safe work practices.</p>	<p>Suggested Learning Activity</p> <p>Determine and execute safe operating procedures when performing a production process. Group discussion/video review of environmental impact of the use of materials.</p> <p>Process/Project</p> <p>Perform a production process with sequential operations using safe work practices.</p>	<p>Suggested Learning Activity</p> <p>Role-play a hypothetical hazardous situation. Assess the environmental and human impact of producing a project.</p> <p>Process/Project</p> <p>Research project on natural resource management. Design jigs and fixtures for safe production procedures.</p>	<ul style="list-style-type: none"> Checklists Brainstorming Inquiry and Research Discussion 	<ul style="list-style-type: none"> Checklist Anecdotal Comments and Records Demonstrations/ Presentations
<p>Suggested Learning Activity</p> <p>Room map Review of safety manuals Hazardous symbol identification</p> <p>Process/Project</p> <p>Design and construct a safety poster. Construct a product with tools and machinery in accordance with safe work practices.</p>	<p>Suggested Learning Activity</p> <p>List potential hazards associated with a production process. Participate in lab inspection and complete checklist. Review a video that demonstrates safe handling procedures.</p> <p>Process/Project</p> <p>Construct a product with tools and machinery in accordance with safe work practices.</p>	<p>Suggested Learning Activity</p> <p>Determine and execute safe operating procedures when performing a production process. Group discussion/video review of environmental impact of the use of materials.</p> <p>Process/Project</p> <p>Perform a production process with sequential operations using safe work practices.</p>	<p>Suggested Learning Activity</p> <p>Role-play a hypothetical hazardous situation. Assess the environmental and human impact of producing a project.</p> <p>Process/Project</p> <p>Research project on natural resource management. Design jigs and fixtures for safe production procedures.</p>	<ul style="list-style-type: none"> Checklists Brainstorming Inquiry and Research Discussion 	<ul style="list-style-type: none"> Checklist Anecdotal Comments and Records Demonstrations/ Presentations

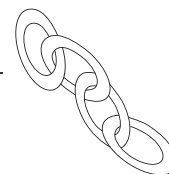


Industrial Arts: Comprehensive Measurement

General Learning Outcome: To select appropriate measurement tools and apply measurements in practice.

Former Major Objective: To gain knowledge and skills related to imperial and SI metric systems of measurement, measuring devices, and testing devices. (Industrial Arts 7-9: Core Safety Objective in All Curricula, Manitoba Education: 1983)

Exploratory Specific Learning Outcome(s)	Introductory Specific Learning Outcome(s)	Intermediate Specific Learning Outcome(s)	Advanced Specific Learning Outcome(s)	Suggested Instructional Approaches Refer to pages 49-54	Suggested Assessment Methods/Tools Refer to pages 55-56
<p>1. Define measurement and the need for accurate measurement.</p> <p>2. Identify units and use measurement for practical purpose.</p> <p>3. Identify and compare the units in imperial vs. metric.</p> <p>Suggested Learning Activity Identify situations where measurement is used. Select appropriate measurement tools to match a task.</p> <p>Process/Project Measure common objects with measurement tools. Draw simple two-dimensional layout.</p>	<p>1. Demonstrate the use of various measuring instruments.</p> <p>2. Apply measurement units and use tools specific to performing a task, e.g.,</p> <ul style="list-style-type: none"> • Scale ruler • Tape measure • Micrometer • Point system <p>3. Identify characteristics of the measurement system.</p> <p>Suggested Learning Activity Transfer measurements from drawing to material.</p> <p>Process/Project Draw three-dimensional layout. Construct a project from wood, paper, or metal that involves transferring measurements using specific tools.</p>	<p>1. Interpret units of measurement from various sources and apply to a task.</p> <p>2. Manipulate numbers in the measurement system.</p> <p>Suggested Learning Activity Read and interpret detailed project plans such as construction working drawings (blueprint). Use measurement tools to measure area and linear units.</p> <p>Process/Project Read and interpret measurements from a plan and use appropriate tools to lay out and measure materials needed for construction of a wood, paper, or metal project. Create plan view construction drawings.</p>	<p>1. Decide, select, and use appropriate measurement units and tools in performing a task.</p> <p>2. Apply knowledge or ability to manipulate numbers in the measurement system to alter an existing pattern plan.</p> <p>Suggested Learning Activity Create a plan involving measurements. Assign units of measure to a project, or alter plans for an existing project. Use measurement tools to create a bill of materials.</p> <p>Process/Project Alter dimensions of an existing plan as part of the construction of a project. Select and use appropriate measurement and layout tools in the process. Plan/design a project and apply measurement skills during the development of the project.</p>	<ul style="list-style-type: none"> • Demonstration • Discussion • Lesson Overviews • Didactic Questioning • Explicit Teaching • Problem Solving 	<ul style="list-style-type: none"> • Demonstrations • Projects • Quizzes • Tests • Rubric
<p>Suggested Learning Activity Identify situations where measurement is used. Select appropriate measurement tools to match a task.</p> <p>Process/Project Measure common objects with measurement tools. Draw simple two-dimensional layout.</p>	<p>1. Demonstrate the use of various measuring instruments.</p> <p>2. Apply measurement units and use tools specific to performing a task, e.g.,</p> <ul style="list-style-type: none"> • Scale ruler • Tape measure • Micrometer • Point system <p>3. Identify characteristics of the measurement system.</p> <p>Suggested Learning Activity Transfer measurements from drawing to material.</p> <p>Process/Project Draw three-dimensional layout. Construct a project from wood, paper, or metal that involves transferring measurements using specific tools.</p>	<p>1. Interpret units of measurement from various sources and apply to a task.</p> <p>2. Manipulate numbers in the measurement system.</p> <p>Suggested Learning Activity Read and interpret detailed project plans such as construction working drawings (blueprint). Use measurement tools to measure area and linear units.</p> <p>Process/Project Read and interpret measurements from a plan and use appropriate tools to lay out and measure materials needed for construction of a wood, paper, or metal project. Create plan view construction drawings.</p>	<p>1. Decide, select, and use appropriate measurement units and tools in performing a task.</p> <p>2. Apply knowledge or ability to manipulate numbers in the measurement system to alter an existing pattern plan.</p> <p>Suggested Learning Activity Create a plan involving measurements. Assign units of measure to a project, or alter plans for an existing project. Use measurement tools to create a bill of materials.</p> <p>Process/Project Alter dimensions of an existing plan as part of the construction of a project. Select and use appropriate measurement and layout tools in the process. Plan/design a project and apply measurement skills during the development of the project.</p>	<ul style="list-style-type: none"> • Demonstration • Discussion • Lesson Overviews • Didactic Questioning • Explicit Teaching • Problem Solving 	<ul style="list-style-type: none"> • Demonstrations • Projects • Quizzes • Tests • Rubric



Industrial Arts: Planning and Design

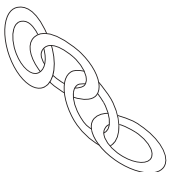
General Learning Outcome: To perform tasks that demonstrate application of the design process to a project.

Former Major Objective: To develop skills in and to understand the principles of planning and design, and to apply these skills and principles to electricity/electronics. (Industrial Arts 7-9: Power and Energy, Section 5, Planning and Design, Manitoba Education: 1983)

Exploratory Specific Learning Outcome(s)	Introductory Specific Learning Outcome(s)	Intermediate Specific Learning Outcome(s)	Advanced Specific Learning Outcome(s)	Suggested Instructional Approaches	Suggested Assessment Methods/Tools
<p>1. Identify and explain the steps in the design process.</p> <p>Suggested Learning Activity Practise brainstorming stage of the design process.</p> <p>Using an existing invention, identify the steps for its development.</p> <p>Process/Project Represent the steps of designing in a usual presentation chart.</p>	<p>1. Adapt an existing product utilizing the design process.</p> <p>Suggested Learning Activity Change a portion of an existing design.</p> <p>Process/Project Investigate the opportunity to modify an existing product.</p>	<p>1. Use the design process in a prescribed activity.</p> <p>Suggested Learning Activity Follow a prescribed activity that employs the design process.</p> <p>Process/Project Invent a new product and build a prototype.</p>	<p>1. Apply the design process.</p> <p>Suggested Learning Activity Using the design process, create a student-initiated task/project.</p> <p>Process/Project Brainstorm in groups as a way of gathering ideas for possible project concepts. Research local community for possible design considerations.</p>	<ul style="list-style-type: none"> Modelling Demonstration Discussion Interactive Instruction Strategies, pp. 53-54 <ul style="list-style-type: none"> Didactic Questioning Problem Solving Essay and Report Interactive Instruction Strategies, pp. 53-54 	<ul style="list-style-type: none"> Checklists Self-Assessment Rubrics <ul style="list-style-type: none"> Project Demonstrations Presentations <ul style="list-style-type: none"> Peer Assessment Reflection Logs/Journals Project



<p>General Learning Outcome: Former Major Objective:</p>	<p>Exploratory Specific Learning Outcome(s)</p>					
	<p>Introductory Specific Learning Outcome(s)</p>					
	<p>Intermediate Specific Learning Outcome(s)</p>					
	<p>Advanced Specific Learning Outcome(s)</p>					
	<p>Suggested Instructional Approaches Refer to pages 49-54</p>					
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