

# Green Industries (GI): Completion Guide

**Check the box, list the activity, make sure you have saved images in K drive**

A – Fundamentals    B- Skills    C- Technology    D- Professional/Career opportunities

These are the specific Expectations (of us) in each Strand:

## **A 1. Demonstrate an understanding of species classification and identification and relationships between species and geographical regions:**

- (1) *plant and animal groups based on key id characteristics, use common names and scientific classifications [native and non native, major types, species, variety of trees, shrubs, flowering plants, crops, animal breeds.*
- (2) *forest types, hardiness, agricultural use, ease of cultivation water features, \*studying fish in the stream, birds, butterflies, all plants around school*

## **A2. Demonstrate an understanding of the effects of biotic and abiotic factors on growth and product quality:**

- (1) *air quality, nutrients, water, topography, handling procedures,*
- (2) *reproduction, respiration, photosynthesis, transpiration, post harvest physiology,*
- (3) *pests and diseases, bacteria, viruses, moulds, insects, animals*

## **A3. Develop and evaluate designs or process for a variety of applications related tot he green industries:**

- (1) *steps in the design process [creation of forest management plans \*(our forest), environmental farm plans, urban landscape designs, hydroponic system designs*
- (2) *single animal management, crop location and rotation, crop scheduling, nutrient and waste management, composting, select cutting, timber cruise*
- (3) *id structures used in GI: mills, barns, different green house styles, store layouts, how do their structures relate to their functions*
- (4) *care of plants: propagating, pruning, transporting, watering, feeding, fertilizing, removing bark*

## **A4. Use mathematical, documentation, research, and communication skills as they apply to the green industries.**

- (1) *terminology oral written i.e: sustainability, coniferous, massing flower, flagstone, organic, pruning, etc*

- (2) track info; invoices, recording fertilizer and pesticide use, completing maintenance records, maintaining crop management records, documenting Hazard Analysis and Critical Control Point
- (3) describe commercial and technical issues: technology, marketing boards vs open markets, food safety testing (use websites, growers associations).
- (4) metric and imperial unit conversions for applications (land areas, yields, green log weights, diet analyses, invoices)

**B1. Demonstrate an understanding of and apply design and production practices that are commonly used in the green industries:**

- (1) implement a production process according to a design or plan (timber cruise, stand inventory, landscape construction, crop rotation, mixed animal farming, selective breeding)
- (2) forest, nutrient, site layout, crop rotation, annual work plan, business plan, five year optional plan
- (3) crop and poultry production, sexual and asexual plant production, shrub rejuvenation, rose processing, care of local tree species
- (4) planting native species, mulching, establishing natural habitat
- (5) marketing in GI: displays, flyer and poster displays, internet sales

**B2. Apply management strategies for assessing and controlling biotic (living) and abiotic (nonliving) factors that affect plant or animal quality:**

- (1) weed identification, animal health inspections, plant quality inspections, pest scouting, tracking of freshness and quality.
- (2) nutrient balance, soil testing, plant tissue analysis, growing degree days, form defect analysis, water testing

**B3. Demonstrate competence in technical skills related to specific applications and tasks within the green industries:**

- (1) Power tools machinery, rigging loads, hardscaping, pesticide application
- (2) trellises, scaffolds, containers, raised beds, fences
- (3) GPS, welding, wiring and making electrical repairs, operating and maintaining small engines, making orthographic drawings, using computer applications

**C1. Analyse the impact of the green industries on the environment and describe ways of minimizing harmful effects**

- (1) food webs, symbiotic relationships, ecological succession, nutrient flows and cycles, habitat and species diversity
- (2) logging practices, irrigation, fertilization, pest control, nutrient and waste management
- (3) compare real vs chemicals natural fertilizers, pest control without fert pesticides, real flowers over artificial, untreated vs pressure treated.
- (4) sustainable env. farm planning, integrated pest management, xeriscaping, forest regeneration, low till cultivation
- (5) recycling, reusing, composting, growing GMO, organic farming, disposal for invasive plants.

## **C2. Analyse social and economic relationships and issues involving the green industries**

- describe links bw local communities and economies and GI: GI as sources of jobs and tax revenues, communities as providers of services to GI, animal welfare, rights of migrant workers, fair trade concerns relating to imported agricultural or floral products, fuel ethanol v food production.

## **D1. Demonstrate an understanding of and apply safe working practices as they relate to the green industries:**

- (1) protective clothing, safety with plants/animals and tools: workplace safety - (WHMIS), visit firehall?
- (2) environmental and site hazards: land and weather conditions, crew competence/organization, utility lines, glass structures, limbs, chicots managing the hazards roping off an area, setting up caution signs, removing hazards, implementing traffic control measures
- (3) safety with tools: pinch points, circle check of vehicle, check materials condition (fuel oil levels, hydraulic protective equipment)
- (4) safety with plants/animals: dethorning, ergonomic lifting practices, hand protection, securing loads, understanding animal perception, avoiding startling animals, restraints
- (5) workplace safety - create personal workplace safety audits to identify potentially hazardous situation
- (6) find information and sources about workplace hazards and how to avoid them. (WHMIS)
- (7) outline and comply with rules protecting health and safety of workers (occupational health and safety act, local by laws, fire prevention regulations \*visit firehall?
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## **D2. demonstrate an understanding of the business and regulatory environment of the green industries;**

- (1) Identify a variety of industry-related organizations (local growers association, government departments, non government organizations, and demonstrate an understanding of their role with GI
- (2) explain principles, concepts, and practices related to the marketing and distribution of commodity products (product branding, advertising approaches like health and lifestyle campaigns, market opportunities, shipping considerations, life plants and animals, product life
- (3) outline and comply with legislation and guidelines governing the quality and safety of green industry products and services (quality regulations, grading standards, inspection requirements, Landscape Ontario guidelines for the landscaping industry

**D3. identify careers in the green industries, and describe the skills, education, and training required for entry into these occupations**

- *landscape architect, forest manager, horticulturalist, farm manager, turf manager, botanist, veterinarian: skype, guest speaker, field trip, job shadowing,*
- *habits: reading text, writing, document use, computer use, oral communication, numeracy, thinking*
- *work habits that lead to success: safety, teamwork, reliability, initiative, customer service Maintain an up to date portfolio*

List the topics/projects you will include in your POL here: *Have no more than 10 These are descriptions of what you did and how you learned. Other presentations, projects, videos, discovery, helping others on projects etc*

- 1)
- 2)
- 3)
- 4)
- 5)
- 6)
- 7)

Categories	100-90% 4+	89-80% Level 4	79-70% Level 3	69-60% Level 2	59-50% Level 1
Independent Work (A) - asking questions, posting/responding on Edsby, engaged in tasks,	Excellent,	Above Expected standard	Standard, meets expectations	Admissable	Below Expectations
Working with others	Excellent,	Above Expected standard	Standard, meets expectations	Admissable	Below Expectations

- discussing, helping others,  
tutoring, sharing  
ideas/information, sharing tasks  
in group yet still respecting other  
contributions

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Knowledge and Understanding-	Excellent	Above Expected Standard	Meets Standard	Admissable	Below Expectation
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competence in your area,  
understanding what you worked  
with, being able to explain and  
discuss things we have learned.