

Rural Route Agriculture Academy



NAME OF CHARTER BOARD

Agriculture Charter School Society

VISION

To cultivate a daily, dynamic learning environment where students develop a deep understanding and appreciation for agriculture, sustainable food production, and environmental stewardship.

PURPOSE

To foster the academic and social growth of each individual student through daily project-based and hands-on learning focusing on agriculture knowledge, skills and practices, which will lead into agriculture and STEM related vocations.

MISSION

The students of Rural Route Agriculture Academy will experience a unique educational environment that:

- Promotes and prepares students for the vocation of Farmer/Rancher/Farm Hand
- Fosters a joy of learning through a project-based and a learn to do by doing approach.
- Instills curiosity and confidence by capturing and expanding on students' strengths, while supporting their needs and individual growth.
- Gives students life-long skills such as co-operation, leadership, interpersonal relations, critical thinking, decision making, organization, public speaking and community service.
- Implements programs focusing on developing self-confidence, teamwork, interpersonal and leadership skills.

GUIDING PRINCIPLES

Rural Route Agriculture Academy will revolve around the following key guiding principles:

1. **Sustainability:** Promote environmentally responsible and resource-efficient agricultural practices.
2. **Innovation:** Embrace technological advancements and innovative approaches to enhance productivity, efficiency, and sustainability in agriculture.
3. **Community Engagement:** Foster partnerships with local communities, farmers, industry stakeholders, and government agencies to promote collaboration, knowledge sharing, and community development.
4. **Experiential Learning** (learn to do by doing): Provide daily hands-on learning experiences, practical training, and real-world application of agricultural concepts to enhance student understanding and skill development.

5. **Holistic Development:** Support the holistic development of students by integrating academic learning with personal growth, leadership and career development, and ethical values such as stewardship and responsibility.
6. **Interdisciplinary Approach:** Emphasize the interconnectedness of agriculture with other disciplines such as science, technology, engineering, mathematics, economics, and social sciences to provide students with a comprehensive understanding of agricultural systems and their broader impacts.
7. **Diversity and Inclusion:** Create an inclusive learning environment that celebrates diversity, promotes equity, and values individual students strengths and talents.

By upholding these guiding principles, Rural Route Agriculture Academy will effectively prepare students to address the complex challenges and opportunities in the agricultural industry while promoting sustainability, innovation, and social responsibility.

TEACHING PHILOSOPHY

To support our vision, instructional practices will focus on experiential learning, interdisciplinary approaches, and real-world application. This will include:

1. **Hands-on farming experiences:** Provide students with **daily** opportunities to work on school's mini-farm, local large scale farms, feedlots, gardens, green houses, or agricultural projects to develop practical skills and understanding of agricultural practices.
2. **Integrated curriculum:** Integrate agricultural concepts into various subjects such as science, math, and environmental studies to demonstrate the interconnectedness of agriculture with other disciplines.
3. **Project-based learning:** Present students with real-world agricultural challenges and encourage them to develop solutions through critical thinking, collaboration, and creativity.
4. **Technology integration:** Incorporate agricultural technologies such as precision farming, GPS use, drone technology, and data analytics to expose students to modern farming practices and innovations.
5. **Field trips and guest speakers:** Organize field trips to farms, agricultural research centers, and food processing facilities to provide students with exposure to different aspects of the agricultural industry. Invite guest speakers from the agricultural community to share their expertise and insights with students.
6. **Community engagement:** Encourage students to participate in community gardening projects, farmers markets, and 4H achievement days to foster a sense of connection to the local agricultural community and promote civic engagement.
7. **Sustainability education:** Emphasize the importance of sustainable agriculture practices such as organic farming, conservation agriculture, and agroecology,

and teach students about the environmental, social, and economic benefits of sustainable food systems.

VOCATION-BASED EDUCATION

Agriculture has a long history of being directly connected to Alberta's economy and development. As an industry, agriculture encompasses a diverse range of activities and roles, including crop production, livestock management, agribusiness, veterinary medicine, agricultural science, and sustainable farming practices. Pursuing a career in agriculture requires a combination of practical skills, scientific knowledge, and business acumen. Many jobs in Alberta are directly or indirectly tied to the agriculture sector. Agriculture offers a wide range of career paths, reflecting the diversity and complexity of the industry. Here are some key career options related to agriculture:

****Agronomist****: Focuses on crop production and soil management, researching ways to improve the efficiency and sustainability of crop farming.

****Animal Science****: Covers the breeding, genetics, nutrition, and care of farm animals. Careers in this field can include livestock management, veterinary services, and animal research.

****Horticulture****: Involves the cultivation of fruits, vegetables, flowers, and ornamental plants. Careers include landscape design, greenhouse management, and botanical research.

****Agricultural Economics****: Focuses on the business side of farming, including market analysis, farm management, and policy development. Careers can be in agribusiness, government agencies, and financial institutions.

****Food Science and Technology****: Involves the processing, preservation, and safety of food products. Careers include food technologists, quality control managers, and product development specialists.

****Environmental Science and Conservation****: Focuses on sustainable farming practices, soil conservation, and the protection of natural resources. Careers include environmental consultants, conservation scientists, and extension agents.

****Agroforestry****: Combines agriculture and forestry to create sustainable land-use systems. Careers involve managing integrated systems that include trees, crops, and livestock.

****Agricultural Education and Communication****: Involves teaching and disseminating agricultural knowledge. Careers include agricultural educators, extension agents, and communication specialists.

****Agricultural Biotechnology****: Uses technology to enhance the production and quality of crops and livestock. Careers include geneticists, biotechnologists, and research scientists.

11. ****Farm Management****: Involves the day-to-day running of farm operations, including crop planning, financial management, and labor supervision.

****Agri-Tourism****: Combines agriculture and tourism, offering educational and recreational experiences on farms. Careers can include managing agritourism enterprises and developing farm-based attractions.

****Soil and Plant Scientists****: Study soil composition and plant growth, working to improve agricultural productivity and sustainability.

****Pest Control Advisor****: Provides expertise in managing agricultural pests, including insects, weeds, and diseases, through integrated pest management strategies.

****Agricultural Policy and Advocacy****: Involves working with government agencies, non-profits, and advocacy groups to shape agricultural policy and promote sustainable practice.

Rural Route Agriculture Academy's primary vocational focus will be **farmer/rancher/ranch-hand**. The number of family farms has been steadily declining in Alberta for a number of years. As of the most recent data, Alberta has approximately 41,505 farms according to the 2021 Census of Agriculture. This represents a decline of about 1.5% from 2016, part of a longer trend of decreasing farm numbers in Alberta and across Canada. In Alberta, there is a consistent demand for farmhand roles within the agricultural sector. This field faces labor shortages partly due to an aging workforce and challenges in attracting younger workers, along with trends toward mechanization that are altering traditional roles in farming. Temporary foreign workers often fill some of these positions. We want to provide our students with the knowledge, skills, and desire to fill some of these jobs and/or carry on the family farm.

DESCRIPTION OF INTENDED STUDENTS

Rural Route Agriculture Academy is intended for students who are passionate, or have a desire to learn, about agriculture, sustainable food production, and environmental stewardship. They will display a commitment to the teaching philosophy and experiential learning program. Students will be expected to follow the Rural Route Agriculture Academy's Code of Conduct, support its vision and purpose, while showing commitment to daily project based learning and outdoor learning.

CHARTER GOALS AND MEASURABLE OUTCOMES

Charter Goal 1:

Students will thrive academically in a project-based, experiential learning environment.

Outcomes:

- Students demonstrate deeper learning of concepts, through a wide range of cross-curricular, experiential, and hands-on learning.
- Students demonstrate year-over-year improvement in the areas of the Alberta Program of Studies related to literacy and numeracy.

- Students are engaged in learning through connections to their own lives and experiences, plus the surrounding community,
- Students are able to pursue areas of personal interest and passion through individual projects, leading to an appreciation of lifelong learning.
- Students enjoy attending school and are able to identify their strengths and areas of growth.

Strategies:

- Students will be presented with real-world agricultural challenges and encouraged to develop solutions through critical thinking, collaboration, and creativity. Example - learning how to calculate perimeter and area while designing an optimum chicken coup.
- Students will engage in individual and group projects (within their cohort class and multigrade cohorts) to encourage discussion and develop an understanding of the value of various perspectives and the power of collaboration.
- Unique and innovative learning environments, beyond the confines of the traditional four walls of a classroom, will provide students with a wealth of opportunity to engage in active learning and problem solving that are inherent in real-life situations.
- RRAA will employ a multigenerational approach, including the community in matters as deemed appropriate, respecting the experience, knowledge and perspective members can provide for students.

Charter Goal 2:

Students will develop and display a deep understanding and appreciation for the agriculture industry (past, present and future), sustainable food production, and environmental stewardship.

Outcomes:

- Students will have an appreciation and understanding of the interconnectedness of agriculture with other disciplines such as science, technology, engineering, mathematics, economics, and social sciences.
- To provide students with a comprehensive understanding of agricultural systems and practices which impact sustainable food production and environmental stewardship.
- Students will recognize the significant economic and social impacts the agriculture industry has on Alberta.

Strategies:

- Agricultural concepts will be integrated into various subjects such as science, math, and environmental studies to demonstrate the interconnectedness of agriculture with other disciplines.
- Students will be provided with daily opportunities to work on school's mini-farm, local large scale farms, feedlots, gardens, green houses, or agricultural projects to develop practical skills and understanding of agricultural practices.
- Incorporate agricultural technologies such as precision farming, GPS use, drone technology, and data analytics to expose students to modern farming practices and innovations.
- Organize field trips to farms, agricultural research centers, and food processing facilities to provide students with exposure to different aspects of the agricultural industry. Invite guest speakers from the agricultural community to share their expertise and insights with students.
- Students will connect and collaborate with community members of all ages and backgrounds because intergenerational learning helps students to understand the current needs and challenges, in a historical context.

Charter Goal 3:

Through the development of communication and leadership skills students will become strong school, community and society members.

Outcomes:

- Students will demonstrate and maintain strong interpersonal relationships with peers, teachers, and other members of the school community.
- Students will demonstrate leadership skills through volunteering efforts and participation in one or more community projects each year.
- Students will demonstrate confidence when engaging with peers, industry experts, and community members on topics related to agricultural literacy and environmental stewardship.

Strategies:

- Students in agricultural lead roles will demonstrate public speaking and interpersonal skills by leading presentations and RRAA tours for school guests.
- Students will acquire communication skills through dialogue with community members, participation in community activities and required 4 H public speaking events.
- Students will engage in multigrade cohorts to allow for leadership opportunities and mentorship.

Charter Goal 4:

Students will be exposed to, explore, and experience agriculture and rural related careers.

Outcomes:

- Students will evaluate their skills and abilities, and develop interests and career goals, with the benefit of practical, hands-on learning, mentoring and exposure to a wide variety of careers related to the agriculture sector and rural Alberta.
- Students will be supported in their pursuit of a career pathway through exploration, engagement and work integrated learning experiences, They will acquire knowledge, skills and attitudes required in the current and future workplaces.
- The school will cultivate strategies for building strong and productive relationships with local farmers, ranchers, tradespeople, businesses and industry, to partner in the education of students.

Strategies:

- Regular opportunities will be organized for local industry and producers to engage with students through presentations, as mentors for in-school projects and to host workplaces visits.
- Students will have the opportunity to explore, engage in and experience viable career paths through workplace visits and work integrated learning (work experience and career internships).
- Students will receive extensive agriculture and environmental experiential learning. This will set students up for future success by easing the transition to agricultural and environmental post secondary learning and/ or the workplace.
- Local experts (tradespeople, professionals, hobbyists and entrepreneurs) will be invited to share an understanding of their craft and the skills necessary in their field, enriching and deepening the learning experience for students.

Performance Measures

Local measures:

- School-administered assessments
- School surveys (for students, parents, and staff) to gauge attitudes and perceptions in areas such as academic mindset, enjoyment of learning, student engagement and life-long learning and career path development
- School enrolment, attendance, and high school completion data
- Track the number of students engaged in leadership and community activities
- School research
- Observations and reflections by staff, students, parents and community
- Community consultations

Provincial measures:

- Provincial achievement test and diploma exam results
- Student Learning Assessment results
- Alberta Education Assurance survey

Teachers will utilize both formative and summative assessment techniques, to increase and measure individual student learning, such as:

- 1) self reflection and appraisal
- 2) samples of student work
- 3) teacher observations and inquiries (both in the classroom and in outdoor learning activities)
- 4) use of rubrics
- 5) norm referenced literacy and numeracy assessments
- 5) regular student progress reports/conferences
- 6) student portfolios/project record books

STUDENT SELECTION

Rural Route Agriculture Academy (RRAA) strives to meet the needs of all students and to provide the maximum opportunity for student success. No child will be turned away when a space and the resources are available to support the student's needs. Students are accepted on a first-come-first-served basis; when there are no available spaces they enter into a waitlist process, as outlined below. Priority will be given to (in this order):

1. Siblings of students already attending the RRAA
2. Children of staff members.
3. First come first served to all other students. In this instance, any waitlist generated will be reset annually.

GRADES and CURRICULUM TO BE OFFERED

Rural Route Agriculture Academy will offer Kindergarten (ECS) through grade twelve. Starting enrollment will be determined by the size of the facility, we are projecting 90 students with a long term goal of 250. The school will follow the Alberta Education Program of Study with students achieving mandated curricular outcomes. Junior high CTF and CTS programming will focus on Agriculture, Trades, and Business to provide students with skills and knowledge that will support their success in the agriculture industry. Agriculture-based learning is an invaluable component of STEM education, bridging practical applications with theoretical knowledge. By integrating agriculture into STEM curricula, students gain hands-on experience with real-world problems, such as

sustainable farming practices, environmental stewardship, and food security. This approach not only enhances their understanding of scientific concepts like biology, chemistry, and environmental science but also cultivates critical thinking and problem-solving skills. Moreover, agriculture-based learning can inspire future careers in STEM fields, fostering innovation and technological advancements that address global challenges. By connecting classroom learning with agricultural practices, students develop a deeper appreciation for the impact of science and technology on daily life and the environment, preparing them to tackle complex issues with creativity and expertise. Many areas of the new K to 6 science and math curriculums will be taught using agriculture based project learning . For example, using the scientific method to compare the rate of gain in animals being fed two different feed rations would support the Science Organizing Idea- Scientific Methods: Investigation of the physical world is enhanced through the use of scientific methods that attempt to remove human biases and increase objectivity, plus the Math Organizing Idea - Statistics: The science of collecting, analyzing, visualizing, and interpreting data can inform understanding and decision making. Another example would be learning about measurement, perimeter and area when determining the best dimensions for a chicken pen.

ADDITIONAL CURRICULUM

4H

Rural Route Agriculture Academy will partner with Alberta 4H to become a '4H school with all students completing a 4H project annually. 4-H projects encompass everything from active living, arts, science and technology, crafts, cooking, mechanics and all aspects of agriculture. The school will incorporate the **Four Pillars of 4H**:

1. *Community Engagement & Communication*
2. *Science & Technology*
3. *The Environment & Healthy Living*
4. *Sustainable Agriculture & Food Security*



PROJECT BASED LEARNING

- Project Based Learning (PBL) is a teaching method in which students learn by actively engaging in real-world and personally meaningful projects.
- PBL engages students in learning that is deep, long-lasting and instills a love of learning.
- Ways that PBL transforms students' educational experiences:

- Students actively engage with PBL projects that provide real-world relevance for learning. Students can solve problems that are important to them and their communities.
- PBL leads to deeper understanding and greater retention of content knowledge. Students are better able to apply what they know to new situations.
- Students interact with adults, businesses and organizations, and their community, and can develop career interests.
- A great project can be transformative for students. Seeing a real-world impact gives them a sense of agency and purpose.
- Students gain skills valuable in today's workplace and in life, such as how to take initiative, work responsibly, solve problems, collaborate in teams, and communicate ideas.
- Teachers work closely with active, engaged students doing meaningful work, and share in the rediscovered joy of learning.
- Students enjoy using a spectrum of technology tools from research and collaboration through product creation and presentation.

COMMUNICATION OF EDUCATION INNOVATION

Best practices, successes and research findings will be shared at conferences and will be published in partnership with industry, educational and research partners. Results will also be shared with the College of Alberta School of Superintendents (CASS) and The Association of Alberta Public Charter Schools (TAAPCS). Additionally, results will be shared with other school jurisdictions and the Rural Route Agriculture Academy school community. The annual Three Year Education Plan and an annual results review will be posted to our website and reported on as part of the Annual Results Reporting process in Alberta. Education plans will be developed with consultation from parents, post-secondary partners, industry partners, students and teachers. RRAA will utilize the following specific strategies for sharing our story and innovations:

- Establish partnerships with external educators and researchers aligned with the school's charter.
- Feature learning stories/experiences on social media,
- Network and establish a community of practice with other experiential education programs focusing on agriculture.
- Host tours with interested members of the broader educational community and agriculture industry partners.

CHARTER AMENDMENT PROCESS

The administration of Rural Route Agriculture Academy is charged with the responsibility of ensuring alignment between the ongoing practice of the school and the

commitments made within the charter document. In particular, it is expected that changes in regard to mission, vision, beliefs and pedagogical approaches will be detailed in recommended charter amendments. As part of a defined community engagement process, the School Council will participate in the charter amendment process. The School Council will work with the school's Administration in ways that support the creation of amendments deemed to be necessary and in the best interests of students and the school. Recommendations for amendments may be brought forward by the school council or the administration of Rural Route Agriculture Academy to the Board of Directors. The Board of Directors will vote on recommended charter amendments and should a majority be in favor, amendments will be voted upon by parents/guardians and staff at the annual general meeting. One vote per household will be counted and a majority will be necessary to pass a charter amendment. Approved amendments will be presented to the Minister of Education for consideration of approval.

CHARTER DISSOLUTION PROCESS

In accordance with the Charter Schools Regulation 212/2002 and its subsequent amendments, the Board may decide to terminate the operation of its charter school and to dissolve the charter school at the end of a specific school year, and the following process will therefore occur:

1. Notwithstanding that the term of Rural Route Agriculture Academy charter has not expired or been repealed by the Minister of Education, the Board shall:
 - i. notify the Minister of Education of its intent to terminate the operation of its charter school at the end of a school year and such notice will be given to the Minister by no later than January 31st of the year in which the termination shall occur, and
 - ii. proceed with termination of school operations and dissolution of the charter school only after the written approval of the Minister for the termination of operations has been received.
2. Within two weeks of receiving Ministerial approval for the decision of the Board to terminate the charter school operations, the Board shall provide written notice of its decision to terminate school operations and dissolve the charter to the following stakeholders:
 - a. Minister of Education;
 - b. Superintendent;
 - c. Society Members;
 - d. Principal, teachers and other employees and contractors; and Parents and students of Rural Route Agriculture Academy.
3. Notice of termination of operations and dissolution of the charter school shall provide the reasons for the decision, the effective date of dissolution, and the

proposed plan for dissolution.

4. The Board shall proceed to:

- a. Provide notice pursuant to any rental or leasing agreements for buildings, land, property or facilities;
- b. Determine a value for any owned buildings, land, property, facilities or other assets;
- c. Liquidate any owned assets either by public auction or private sale;
- d. Discharge the liabilities of the school;
- e. Provide the Society, the Superintendent, and the Minister of Education with a full accounting of the finances of the school;
- f. Return any surplus attributable to provincial funding to the Provincial Treasurer; and
- g. Turn over any residual funds to the Society.

5. The Board will work with other school jurisdictions to facilitate the transfer of students to other schools, and thus the Board shall:

- i. provide each registered student's parent/guardian with information on the procedure specified in the Student Record Regulation 225/2006 or its subsequent amendments or revisions for a receiving school to request the student record for that student.
- ii. maintain responsibility for the transfer of each student's records for a period of three (3) months from the date the Board specified as its last day of school operations, and thereafter, any remaining student records shall be forwarded to Alberta Education.

Governance

The board of the Agriculture Charter School Society, a non-profit organization created under the Societies Act, serves as the school's governing body and operates in accordance with the Society's bylaws, the School Charter, the Education Act and Regulations, and its obligations to the Minister of Education.

Term of Charter

The Minister of Education sets the term of this Charter.

Charter Renewal

Should the Board request a renewal of the Charter; application shall be made to the Minister in writing no later than December 1 of the final year of its term.



Rural Route Agriculture Academy

Student learning is rooted in agriculture,
STEM (science, technology, engineering, math)
and project-based learning. We
***G** genuine community leaders,*
***R** respect for self, others and Agriculture Industry,*
***O** opportunities to apply knowledge and understanding,*
***W** work ethic and responsibility.*