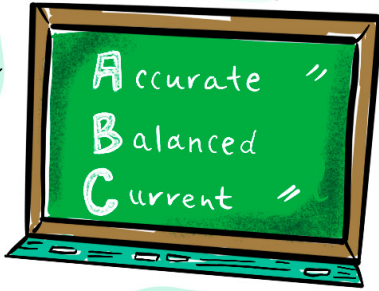


THINK

KNOW!!

Foster curiosity



Where does our food come from?



mo!

Animal welfare

I'm a farmer!



Listening



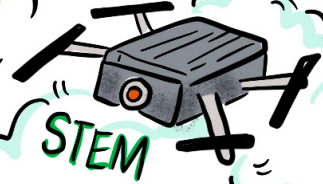
IMPACT FRAMEWORK REPORT



February 2021



Plant Breeding



STEM

FEEL

"Agriculture is inclusive, there is a place for everyone!"

STUDENTS ARE MORE SIMILAR THAN THEY ARE DIFFERENT

Food security & SUSTAINABILITY



TRUST & CONFIDENCE

Confident

empowered

excited

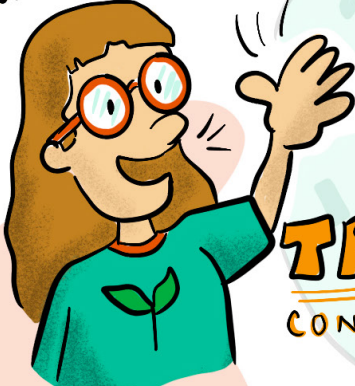




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OBSERVATIONS

The Synthesis team has made a number of observations after facilitating three in-person and eight virtual Impact Framework Sessions and reviewing hundreds of comments from stakeholders in the provincial online workspaces. The more than 300 participants clearly share a passion for agriculture education.

Additional key takeaways include:

- Importance of both in-person and online delivery
- Opportunities for more collaboration/partnerships
- Better align what industry wants students to learn about with what teachers need to do their jobs
- Stakeholder communication about Canada-wide approach
- Importance of measuring impact (not just reach)

We explore each of these takeaways in greater depth.

OBSERVATION 1

IMPORTANCE OF BOTH IN-PERSON AND ONLINE DELIVERY

The provincial sessions highlighted the importance of having both in-person and online delivery of programs in the future. While the reality of 2020 thrust all AITC organizations into online delivery only, it has revealed that this can be a successful method to reach many more classrooms.

Distance, complexity and cost of travel has previously been a limiting factor for some. In many cases, these challenges can be overcome through online delivery. For example, schools that didn't consider participating in an in-person event in the past are now able to take part in some way by joining online.

Similarly, bringing farmers to the students using a virtual farm tour was a successful method in 2020. Online delivery opens up more possibilities for broader reach into more classrooms.

RECOMMENDATION: Delivery of agriculture education should continue to be a combination of both in-person and online, even when the COVID-19 pandemic restrictions are lifted.

CONTINUE ONLINE DELIVERY POST PANDEMIC

While the reality of 2020 thrust all AITC organizations into online delivery only, it has revealed that this can be a successful method to reach many more classrooms.

OBSERVATION 2

OPPORTUNITIES FOR MORE COLLABORATION/PARTNERSHIPS

The sessions also revealed areas for improvement in collaboration between provincial AITC members and other agricultural organizations/stakeholders (such as provincial commodity groups).

While there are some stellar examples of the industry uniting to work through provincial AITC organizations in a coordinated fashion, there are also examples of duplication, or a fragmented approach. Some of these examples surfaced during the sessions where several organizations in a province were conducting similar activities – all aimed at trying to get agriculture education into classrooms.

Our observation is that a united approach using the provincial AITC member organizations as the channel to reach teachers/students would be more effective than having several organizations all trying to do this. The current situation can lead to confusion for teachers as well as overlap and duplication of effort. Raising awareness among teachers about the wide range of credible resources, initiatives and programs (RIPs) that are already available and curriculum-linked is a significant growth opportunity.

RECOMMENDATION: A more united approach within provinces to effectively deliver resources, initiatives and programs to teachers. Local agricultural stakeholders will have greater teacher reach and overall impact by partnering with AITC organizations as the channel to reach classrooms.

OBSERVATION 3

BETTER ALIGN WHAT INDUSTRY WANTS STUDENTS TO LEARN WITH WHAT TEACHERS NEED TO DO THEIR JOBS

Many of the conversations in the sessions included what stakeholders felt students should be learning about agriculture. 'Where their food comes from' was cited as an example numerous times. Feedback from educators in the sessions indicated that we need to be mindful that what the agriculture sector wants students to learn about may not always align with what teachers require for their lessons. We need to make it easier for teachers to do their jobs. This requires reframing the sector topics in teacher-friendly, curriculum-linked language.

RECOMMENDATION:

Three ways to help teachers:

1. **Teacher awareness of RIPs** – Raise awareness and make it easier for teachers to find/access AITC RIPs through their provincial organization.
2. **Quality of RIPs** – Continue to ensure all RIPs are accurate, balanced, current and based in science (ABCs). Also ensure RIPs are unique and deeply rooted in agriculture.
3. **Curriculum linked and teacher friendly** – Frame the RIPs to meet teachers' needs.

SUCCESS WITH TEACHERS

Teachers need to quickly be able to see how the RIP fits into their curriculum. Is it science? Is it food and health? Is it careers?

OBSERVATION 4

STAKEHOLDER COMMUNICATIONS ABOUT CANADA-WIDE APPROACH

Provincial AITC organizations are the primary contact for schools and teachers in their province. As the experts responsible for delivery of AITC resources in their own province, stakeholders know them well. It became apparent during the sessions that their role within the national AITC organization is not well known. Fewer stakeholders were fully aware that the provincial organizations are tapped into AITC-C to share resources and knowledge, to gain efficiency and to be part of the big-picture effort to enhance agriculture in the classroom across Canada.

RECOMMENDATION: Provincial AITC organizations can benefit from increased communication with stakeholders about their participation in the national AITC organization and the benefits of the Canada-wide approach.

OBSERVATION 5

IMPORTANCE OF MEASURING IMPACT (NOT JUST REACH)

The provincial sessions reinforced the value of measurement and highlighted the need for consistent measurement across the provinces. Stakeholders asked about measurement during several of the sessions. There will likely be more competition for funding and donations in the future, so making a compelling case that the educational activities are working will be a key to maintaining and increasing funding levels.

For the most part, the current measures being used are all related to student/teacher reach or the level of activity, such as number of resources used. While measuring reach is important, the next step would be to also measure the level of impact with both teachers and students. We understand that this process is underway to adopt more impact measures. Suggestions include trying to measure to what degree teachers/students are more informed or have more skills following AITC activities. Similarly, striving to measure the degree of change in attitudes and behaviours using pre/post measurements that are consistent for all AITC member organizations.

RECOMMENDATION: Measure impact using consistent terms and metrics so that results can easily be cumulated and communicated from coast to coast.

IMPACT FRAMEWORK:
THINK, KNOW & FEEL

AITC organizations across Canada play a vital role in shaping how students think, know and feel about agriculture on their K to Grade 12 journey. This framework created through feedback from the sessions across Canada brings together the key concepts needed to cultivate a meaningful connection to agriculture and food for students and educators.

- **THINK** – the learning approach we take to be effective
- **KNOW** – the topic areas that we focus on
- **FEEL** – the impact on students that we strive for

21st CENTURY COMPETENCIES

- Critical Thinking
- Communications
- Collaboration
- Creativity and Innovation

THINK

‘Think’ is the first pillar of the impact framework equation. This includes four crucial elements of how AITC organizations approach learning in order to be effective; ABCs, critical thinking, foster curiosity and experiential learning.

ABCs

All of the organization’s resources, initiatives and programs (RIPs)¹ are committed to being accurate, balanced, current and based on science (ABCs). Feedback received during the Impact Framework Sessions reinforced the need for this to continue to be the foundation of all RIPs.

“We close a gap between farm and table, and provide this information in an Accurate, Balanced and Current (ABC) way.”

“AITC provides easy-to-access, curriculum-based, factual information to support teachers’ efforts in fostering informed students and critical thinkers.”

Going forward, an important element of ABCs will be ensuring that all resources are accurate, balanced, and current with respect to Equity, Diversity and Inclusion (EDI). Particular focus should be given to ensuring that RIPs consider Indigenous perspectives, history and ways of knowing, as well as French language resources to ensure access across Canada.

¹ **Resource:** A teaching tool that can take many forms: video, website, print, online that is available but not necessarily “delivered.” E.g. snapAG, #MyFoodChoice
Initiative: An offering that has flexibility in how it is delivered by different member provinces (organizations): E.g. Canadian Agriculture Literacy Month (CALM), International Year of Pulses (IYP), and National Careers Initiative (thinkAG)
Program: A structured offering that is delivered with consistency, regardless of which member province (organization) is delivering it: E.g. Journey 2050, Little Green Thumbs

Critical Thinking

AITC programs and resources foster the development of critical thinking skills to equip learners with 21st century competencies. Helping students think for themselves will allow them to reach their full potential, develop their employability skills, and enable them to face complex challenges now and in the future. Participants in the Impact Framework Sessions identified “Critical Thinking” as a priority to increase public trust. Specifically:

- Providing tools that help young people make informed decisions about the food they eat.
- Providing access to quality information about all kinds of farming and our food choices.
- Teaching kids how to source information about agriculture – trustworthy, unbiased sources – to sort through the clutter of misinformation to get facts.
- Familiarize students with the quality and abundance of research that goes into agricultural systems and decision-making.
- Building a level of food literacy in students to enable them to make informed decisions and opinions regarding Canada’s food system.

“Inspire critical thinkers skilled in making informed and educated choices on some of the bigger topics including genetic literacy (genetic engineering (GE), hybridized, mutagenesis, etc.) as well as simpler choices surrounding ‘paper and plastic’ and ‘conventional and organic.’”

“More than ever, people are confronted with information relating to food production, yet many do not have the knowledge to critically examine what is presented...”

Foster Curiosity

AITC aims to foster curiosity and spark student interest in agriculture. This is achieved in many ways including inquiry-based and sensory learning opportunities.

Experiential Learning

AITC gives students the opportunity to learn through experience. These hands-on opportunities enrich learning and develop engaged thinkers.

RECOMMENDATION: Anticipate what students want to learn about. Conduct an annual review of trends that students are curious about by surveying teachers and students.

LISTEN TO STUDENTS

Don’t just tell students what we want them to know about agriculture. Listen to them.

Discover what they want to learn about agriculture and support them in finding answers.

“We would be very wise to work with youth to offer the responses that resonate with them and resonate with our industry...if youth are telling us it’s important to them, we need to listen respectfully.”

KNOW

One major goal for many AITC funders is for AITC programming to help students learn about where their food comes from and how it is produced (i.e., agricultural practices). They want students to understand more about agriculture and feel connected and confident in the food system.

Another shared national priority is promoting agricultural careers. An important aspect for the development of AITC programming is that these priorities must be linked to the curriculum so that teachers can see how agriculture fits into their courses. In order to ensure the use of AITC resources, teachers must be able to easily see how the resources fit into various courses (from science to social studies to technology) and help them reach their learning objectives.

Our proposed framework for what AITC wants students to “know,” includes two overarching themes – **Agricultural Practices** and **Careers**. These two themes are woven into all topic areas and are important to AITC stakeholders in every province.

Theme 1: Agricultural Practices

The introduction of agricultural practices to students in elementary and secondary schools is very important to AITC stakeholders. They want students to be exposed to accurate information and to understand how their food is produced in order to develop an appreciation and trust for Canadian agriculture and food. The main topics of interest identified by AITC stakeholders include:

Topic	Examples
Animal Welfare	<ul style="list-style-type: none">• Use of hormones• Housing standards, etc.
Crop Protection Technology	<ul style="list-style-type: none">• Why farmers use pesticides• Regulations & safety of pesticides
Plant Breeding	<ul style="list-style-type: none">• Conventional, genetic engineering (GMO) and gene editing (CRISPR)• Regulation of plant breeding technologies
Agricultural Systems	<ul style="list-style-type: none">• Conventional agriculture• Organic agriculture standards• Regenerative agriculture• Indigenous farming and agriculture perspectives; past, present, and future
Value Chains	<ul style="list-style-type: none">• How food makes it from farm to table, from input suppliers to farmers to food processors• International trade and local markets – different avenues for agricultural products• Different parts of the value chain and how they work together

Theme 2: Careers Opportunities in Agriculture

In all of the provincial impact sessions, there was recognition that promoting agriculture and food as a career choice is increasingly critical for many AITC stakeholders across Canada. Stakeholders want Canadian students to know:

- There is a wide range of career opportunities within the agriculture and food sector.
- There are many post-secondary program options that can lead to a career in agriculture.
- You can be a new entrant. Even if you did not grow up on a farm, you can still build a career in agriculture.
- There are also entrepreneurial opportunities in agriculture.

The two themes describing agricultural practices and career opportunities in agriculture can be woven throughout all aspects of agriculture education. In order to introduce agricultural practices and careers in agriculture into the widest variety of courses, at the most entry points into the curriculum, teachers must be able to easily see how this information relates to their courses.

Core Topics

To help teachers see how AITC programs and resources fit into curriculum, we have identified three core topic areas that cover the spectrum of the agriculture and food system and are easily recognizable for teachers.

- Technology and Innovation
- Food and Health
- Sustainability (society, environment, economy)

Agricultural practices can be incorporated into these three core topic areas with a focus on content being accurate, balanced, current and based in science (ABCs). This ABCs focus is critical to maintain and build trust to ensure access to schools. The three core topic areas provide recognizable entry points into the curriculum so that AITC resources can be featured in many grade levels and courses.

Technology and Innovation

Agriculture is an evolving practice that relies on science. As such, agriculture naturally fits into traditional STEM (science, technology, engineering and math) topics. But agriculture is also on the cutting edge of digital technology and biotechnology. If AITC establishes technology and innovation as a core topic area, resources can be developed that fit into digital literacy initiatives, such as coding and robotics courses.

Food and Health

Food and health is a natural point of connection between teachers/students and the agriculture sector.

Food and health sub-topics important to stakeholders included:

- Where does food come from?
- What is the link between food and health? Empowering students to recognize how food choices impact lifelong health.
- How do I know my food is safe? What are the government regulations and industry processes to protect food safety?
- What are the nutritional differences and similarities of various diets (e.g., different protein sources)?

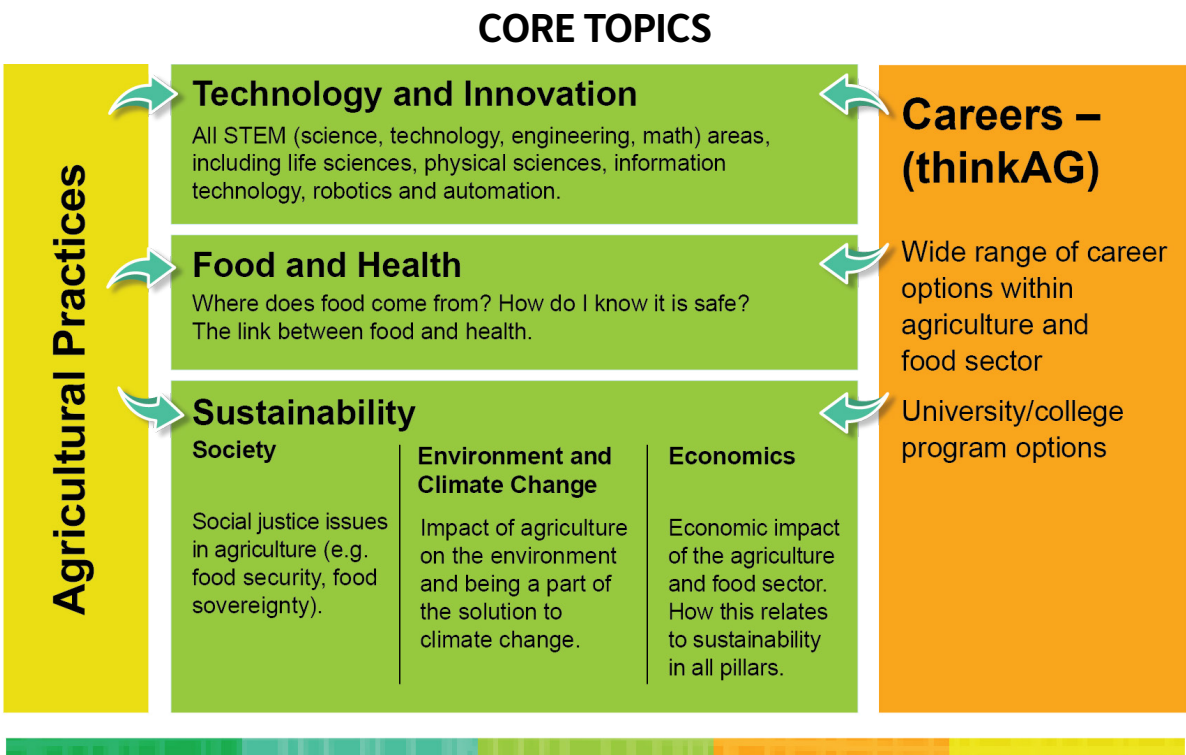
Sustainability

The three pillars of sustainability encompass a wide range of agriculture and food topics:

Pillar	Topic
Society	<ul style="list-style-type: none">• Social justice issues in agriculture (e.g. food security, food sovereignty)• Food waste• Agricultural policy and its impact on food production
Environment	<ul style="list-style-type: none">• Climate change• Sustainable agriculture practices• Impact of agriculture on environmental health• Ways that agriculture can be part of the solution to climate change
Economy	<ul style="list-style-type: none">• Economic impact of ag and food sector• International trade and local markets – different avenues for agricultural products• Different parts of the value chain and how they work together• Demystifying “big ag” (corporate involvement in agriculture)

AITC KNOW Model

Ag sector stakeholder feedback during the sessions reinforced that agricultural practices is a very important topic. However, we heard from educators that they need content to be framed in such a way that it fits their curriculum needs. We recommend that all topics be framed and organized into the following core topic areas with careers also being an overarching theme.



Identifying Common National Priorities

One challenge for AITC is the division of responsibilities between the national organization and the provincial member organizations. In order to identify what topics should be developed nationally versus provincially, we propose to identify areas in which there are common goals and interests. Our hypotheses are that:

- Students across the country are more similar than they are different. Students everywhere are curious about topics that are important to them and want to make a difference in the world.
- There are distinct provincial and regional priorities that may impact resource and program development.

Careers – Careers in agriculture is a topic that is important to AITC stakeholders in all provinces and the same types of jobs and career paths are available to students across Canada. Accordingly, this topic is a natural fit for a national approach. The goals for each province are aligned and students are looking at the same career paths regardless of where they live. It will be most efficient and coordinated to develop careers programming and resources at the **national** level.

PROVINCIAL DELIVERY OF RIPS
Provincial organizations are delivery experts and responsible for delivery in their own province.

Technology and Innovation – Technology and innovation, including STEM topics such as, math, science, coding and robotics, are common interests of teachers and students across Canada. Emerging digital and life science technologies will require specialized resource development that can be efficiently coordinated and led at the **national** level.

Agricultural Practices – AITC provincial stakeholders are interested in locally produced resources for regionally important food products. As a result, some agricultural practices resources are more appropriate to be developed **provincially**. In order to be consistent in messaging and maximize efficiency of resources, these agricultural practices resources should be **coordinated nationally where possible** (e.g. snapAG).

Food and Health – The food and health topics may also be a mixture of provincially and nationally developed resources. For example, food topics such as “Where does my food come from?” is more of a provincial topic, as each region produces distinct agricultural products. Meanwhile, the health aspects of food (e.g. Canada’s Food Guide, links between diets and health) and food safety topics are common across the country and can be coordinated at the **national** level.

Sustainability – While we expect that sustainability topics such as climate change and social justice are common interests to teachers and students across the country, there may be provincial differences that provide an opportunity for locally developed resources. Students in different areas of the country may experience sustainability topics differently. For example, the impact of climate change on local agricultural systems will be different across the country. Extreme and unpredictable weather patterns are impacting regions differently. Students experience these various impacts of climate change first-hand and the adaptations and solutions that agriculture provides may be region-specific.

Likewise, food security and food justice are also different across the country, as different regions have distinct levels of access to food and the socio-economic drivers of food insecurity may differ between regions as well. Thus, some sustainability programming may be best developed **provincially**, through a local lens.

FEEL

What do you want students (our future leaders) to think, know and feel about agriculture during and at the end of their K to Grade 12 journeys?

Participants have high hopes for students throughout their K to Grade 12 journey. Their feedback can be synthesized into four expansive goals:

CONFIDENT

Students should feel confidence and trust in the agriculture and food systems in Canada. They trust that Canadian farmers produce **safe** food with sustainable practices.

“Agriculture is based in science.”

“Canadian farmers and Canadian agriculture are world-class leaders in food production.”

“I feel that farmers are taking good care of our livestock and environment for future generations.”

“I can safely grow my own food if I wish to do so.”

“I am safe eating the food that farmers produce.”

“Canadian agriculture regulations are among the best in the world.”

EMPOWERED

Students should feel empowered to make informed choices about their food. They understand where to find information about the complex systems in agriculture so they can make choices based on information rather than fear. Their critical thinking skills empower them to make informed choices. They feel empowered that they can make a difference in the world through agriculture and food. They can make food choices that support their world views and perspectives.

“I feel good about where my food, fibre and plants come from and feel like my decisions will make an impact.”

“I don’t make my food decisions based on fear.”

“I participate in agriculture by making informed choices.”

“I may not have all the answers, but I know how to find them to make informed decisions.”

EXCITED

Students should feel excited about the opportunities in agriculture and know a wide variety of rewarding careers in agri-food await.

“The world of agriculture is full of opportunities and possibilities for me.”

“Agriculture is a tech and science advanced industry like aerospace, a place where youth want to be because they have an opportunity to be part of something big.”

“Growing food is a great way to contribute in making this world a better place.”

“There are ample and diverse opportunities for employment in Canadian ag.”

WELCOME

Students should feel comfortable and welcome if they want to seek out information about agriculture and food, or if they want to become active participants in the agriculture and food system.

“I want them to feel a sense of connection to the agricultural community, that it’s not ‘them’, it’s ‘us’ and our food.”

“I’d love students to feel welcome to connect with farmers, producers, and others in agriculture.”

“Agriculture is inclusive. There is a place for everyone.”

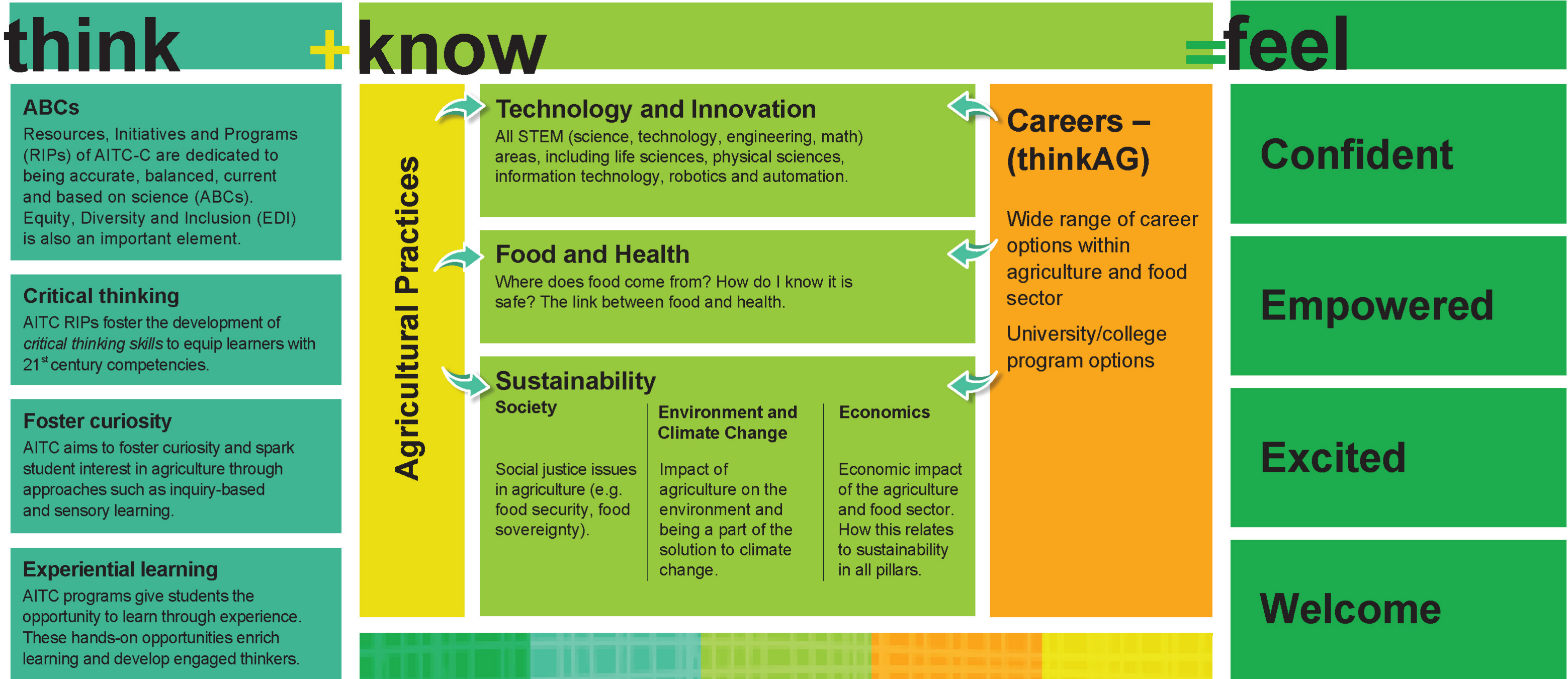
“There is tremendous diversity in the world of agriculture.”



IMPACT FRAMEWORK

THINK + KNOW = FEEL are the three components of the Impact Framework to cultivate a meaningful connection to agriculture and food for students and educators.

- **THINK** – the learning approach we take to be effective
- **KNOW** – the topic areas we focus on
- **FEEL** – the impact we have on students



AGRICULTURE IN **EVERY** CLASSROOM,
INSPIRING **EVERY** STUDENT.



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