



Building Empathy with Long-term Care Homes through Experiential Learning



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Introduction

The partnership between a secondary school and a seniors long-term care home can be intricately connected to the ten broad-based technologies in Ontario's education curriculum, enhancing students' understanding and practical application of these technologies. These Experiential Learning activities will build empathy and enrich students' educational experiences while benefiting the residents of long-term care homes.

This comprehensive integration not only provides students with hands-on experience in various technological fields but also fosters a meaningful connection between generations, preparing students for diverse career paths while enriching the lives of residents. By integrating the 10 broad-based technologies (BBT's) into this Experiential Learning opportunity, students gain hands-on experience and practical skills while contributing positively to the lives of seniors. This approach not only enhances their learning but also prepares them for various career paths aligned with promoting the 10 BBT's and the skilled trades in Ontario.

Project Outline

This project will provide educators the tools and resources to implement an experiential learning project that will allow for a sustainable partnership between their school and a long-term care home within their community. This document offers multiple starting points for educators to work from depending on their subject, grade level and comfort area. Regardless of which sector or project is focused on, the end result will benefit both the residents in the home and the students within the classroom. Several of these projects have been completed successfully within school boards across the province.

Empathy Development

Empathy is the ability to share the feelings of another individual, to understand how they are feeling. While learning in a traditional classroom environment doesn't offer many authentic experiences to support this growth, community connected experiential learning can. Student learning that occurs outside the classroom is beneficial for a number of reasons, particularly the real world connections to hands-on learning that allows for application and validation of a different type of skill-set. Having this learning occur in a long-term care home alongside residents also allows for students to build their social emotional skills.

These lessons are designed to develop empathy in students by immersing them in meaningful interactions with seniors, fostering a deeper understanding of the challenges and experiences of the elderly. Through activities such as digital storytelling, computer skills workshops, building accessibility projects, and providing personal beauty services, students learn to value the perspectives and needs of seniors. By addressing real-world problems and creating solutions that enhance seniors' quality of life, students cultivate patience, compassion, and respect. These experiences help students appreciate the importance of empathetic care and prepare them to better support and advocate for an aging population in their future careers.

Labour Market Data

Ontario's labor market is influenced by its aging population, with a significant portion of the population over 65. This demographic shift presents both challenges and opportunities for the labor market. As a result the demand for healthcare and social services has increased which drives job growth in these sectors. The aging workforce contributes to labor shortages in various industries as more individuals retire, creating gaps that need to be filled by younger workers or through immigration.

The aging population is also driving an increasing demand for senior long-term care facilities, as seniors often require specialized care. The healthcare and social assistance sector, including long-term care facilities, is expected to grow substantially, requiring healthcare professionals such as nurses, personal support workers, and therapists.

By aligning labor market strategies with the needs of an aging population, Ontario can ensure seniors receive the care they need while creating meaningful employment opportunities in the healthcare sector.

This Experiential Learning project aims to introduce secondary school students to the working reality of senior long-term care homes with the goal to prepare students for future career opportunities in this growing sector.

Skills Development

The partnership between secondary schools and long-term care homes equips students with a diverse set of skills and experiences. These include communication, teamwork, responsibility, time management, exposure to healthcare and social services, problem-solving, adaptability, and a sense of social responsibility. These attributes not only enhance their employability but also prepare them to be conscientious and effective members of the workforce.

Skills and Experiences Gained from the Partnership:

- **Interpersonal and Communication Skills:**
 - Regular interaction with seniors enhances listening and empathy.
 - Effective communication with people of different ages and backgrounds.
- **Teamwork and Collaboration:**
 - Working in groups for planning and facilitating activities.
 - Learning to collaborate, delegate tasks, and achieve common goals.
- **Responsibility and Time Management:**
 - Coordinating visits and adhering to schedules.
 - Developing a strong work ethic and effective time management.
- **Exposure to Healthcare and Social Services:**
 - Insights into geriatric care, social work, and healthcare services.
 - Practical understanding of growing career fields.
- **Problem-Solving Skills and Adaptability:**
 - Addressing various needs and situations with quick thinking and flexibility.
 - Enhancing critical thinking and creative problem-solving abilities.
- **Community Involvement and Social Responsibility:**
 - Encouraging community service and civic engagement.
 - Shaping values and attitudes towards social responsibility.

Benefits for Future Employment:

- Enhanced employability through diverse skill sets.
- Preparation for careers in healthcare, social services, and other fields.
- Attributes such as communication, teamwork, and adaptability highly valued by employers.
- Demonstrated commitment to social responsibility and community well-being.

Connection to Trades: 10 Broad-Based Technologies

While there are many opportunities to build partnerships with a long-term care home in a variety of sectors. This document will exclusively offer opportunities to make connections through the broad based technologies as a hands-on approach to authentic, meaningful empathy-building projects.

The partnership between secondary schools and a seniors long-term care home can be intricately connected to the ten broad-based technologies in Ontario's education curriculum. This will enhance students' understanding and practical application of these technologies. Here's how each technology can be integrated:

1. Communications Technology:

- Students can create digital content such as newsletters, videos, and websites to share stories and experiences of seniors.
- Implement projects involving virtual reality (VR) experiences for seniors to revisit their past or explore new places.

2. Computer Technology:

- Teach seniors basic computer skills and how to use the internet, social media, and email.
- Develop software or applications tailored to the needs of seniors, such as health monitoring apps.

3. Construction Technology:

- Students can design and construct small accessibility projects or improvements within the care home, like ramps or garden beds.
- Engage in virtual or real-world projects that involve designing senior-friendly living spaces.

4. Green Industries:

- Create and maintain a community garden at the care home, involving seniors in gardening activities.
- Implement sustainability projects like composting or recycling programs within the care home.

5. Hairstyling and Aesthetics:

- Students can provide basic hairstyling and beauty services to seniors, promoting well-being and self-esteem.
- Organize workshops where seniors can learn or receive beauty and grooming services.

6. Health Care:

- Provide students with opportunities to assist healthcare professionals in non-clinical tasks.
- Educate students about geriatric care, wellness programs, and health promotion activities tailored for seniors.

7. Hospitality and Tourism:

- Organize events, outings, and recreational activities for seniors, applying principles of hospitality management.
- Develop and manage a mini café or tea shop within the care home, involving seniors in the process.

8. Manufacturing Technology:

- Engage students in creating assistive devices or tools that help seniors with daily activities using 3D printing or other manufacturing techniques.
- Students can learn about product design and development focused on the needs of the elderly.

9. Technological Design:

- Design and prototype innovative solutions to improve the quality of life for seniors, such as ergonomic furniture or smart home devices.
- Collaborate on projects that involve redesigning spaces to be more senior-friendly.

10. Transportation Technology:

- Explore solutions for accessible transportation for seniors, including designing modifications for vehicles.
- Study and improve the logistics of transportation services for seniors' outings and appointments.

By integrating these broad-based technologies into the partnership, students gain hands-on experience and practical skills while contributing positively to the lives of seniors. This approach not only enhances their learning but also prepares them for various career paths aligned with these technologies.

Religious Considerations (Catholic Board)

These lessons promote values connected to the Catholic faith by embodying principles such as compassion, respect for the dignity of every person, and service to others.

1. **Compassion and Empathy:** The activities encourage students to listen to and understand the experiences of seniors, fostering a deep sense of compassion and empathy. This aligns with the Catholic teaching of loving and caring for our neighbors.
2. **Dignity of the Human Person:** By engaging in projects that cater to the needs of seniors, students learn to respect and uphold the inherent dignity of each individual, a core value of Catholic social teaching.
3. **Service to Others:** These lessons emphasize the importance of serving others, particularly the vulnerable and elderly. This service-oriented approach mirrors the Catholic commitment to charity and social justice.
4. **Community and Solidarity:** Working with seniors helps students build a sense of community and solidarity, recognizing that we are all part of one human family. This reflects the Catholic belief in the unity and interconnectedness of all people.
5. **Patience and Humility:** Interacting with seniors requires patience and humility, virtues that are central to the Catholic faith. Students learn to put the needs of others before their own and to serve with a humble heart.
6. **Respect for Life:** Through these activities, students come to appreciate the value of life at all stages, promoting a culture of life that is central to Catholic teaching.

By integrating these values into their interactions and projects, students not only develop practical skills but also grow in their faith and moral character, preparing them to be compassionate and responsible members of society.

Additionally, these projects promote the [Ontario Catholic School Graduate Expectations](#):

- A Discerning Believer
- An Effective Communicator
- A Reflective and Holistic Thinker
- A Self-Directed, Responsible, Life-Long Learner
- A Collaborative Contributor
- A Caring Family Member
- A Responsible Citizen

Experiential Learning & Pathways Considerations

To borrow a phrase from John Dewey, “Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results.”

This program guide is written through the lens of **Experiential Learning (EL)**, guided by the EL Cycle (pictured right). As mentioned in the Ontario Cooperative Education Curriculum Grades 11 & 12 on page 23, there are many models that researchers use to describe experiential learning, but all share three common elements: participation, reflection, and application. With the student considered the focus of this learning, teachers assist students in moving through these three phases:



The Experiential Learning Cycle

Source: Adapted from D.A. Kolb, *Experiential Learning: Experience as the Source of Learning and Development* (Englewood Cliffs, N.J.: Prentice-Hall, 1984).

- **participate (What?)** in a learning experience connected to a community;
- **reflect (So What?)** on the experience in order to derive meaning from it; and
- **apply (Now What?)** their learning to influence their decisions and actions in various aspects of their lives

Each BBT Project outlined in this document is designed to guide students through each phase of the EL Cycle. Teachers are provided with guidelines and suggestions on how to meaningfully engage students as they participate in project-based learning, reflect on that learning, and apply what they have learned to a new situation. Although this document is not designed for a co-op course, it shares many of its goals with each of these projects:

- ❖ helping students acquire skills and knowledge related to the community experience;
- ❖ providing opportunities for students to inquire and reflect on their experiences in order to gain a greater knowledge of themselves and their opportunities and a growing understanding of how they can shape their future;
- ❖ providing personalized experiences to meet students’ particular learning and motivational needs

The Importance of Reflection

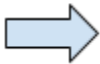
Experiential learning requires educators to provide explicit instruction in the skills of reflection and to assist students in developing the habit of looking for the learning that can be drawn from all life experiences (*Community Connected Experiential Learning Draft Document*, Ontario Ministry of Education, 2016).


The Cooperative Education Program curriculum document offers a thorough and useful definition of reflection:

Reflection is the foundation from which students develop a wide range of transferable skills and knowledge, or “global competencies”, including critical thinking, innovation, creativity, and problem-solving skills. Reflection is a fundamental feature of metacognition – that is, of “learning the process of learning” and of self-aware and self-directed learning.

Meaningful reflection isn’t something that’s going to happen on its own. Students need guidance and practice through reflective questions and prompts to help them identify what they learned as a result of the experience - about themselves, other people, the world, their opportunities, or the topic of study - to develop reflective habits that shape them into lifelong learners (*Cooperative Education Program*, Ontario Ministry of Education, 2016).

Each BBT project in this document contains generalized suggestions for how to guide students in reflection. In each section, there is a table similar to the one shown below, with hyperlinks to the facilitation instructions in **Appendix 2**.

This resource is useful for every project 

Hyperlinked to Appendix 2 

Reflection - What, So What, Now What?
The Reflection Choice Board can be used at any time as an individual, small group, or whole class reflection strategy.
Additional routines that would work well for this project: <ul style="list-style-type: none">> Journaling throughout the project> Plus/Delta for mid-way check-ins> Benefits to Society as a final whole-group reflection and debrief

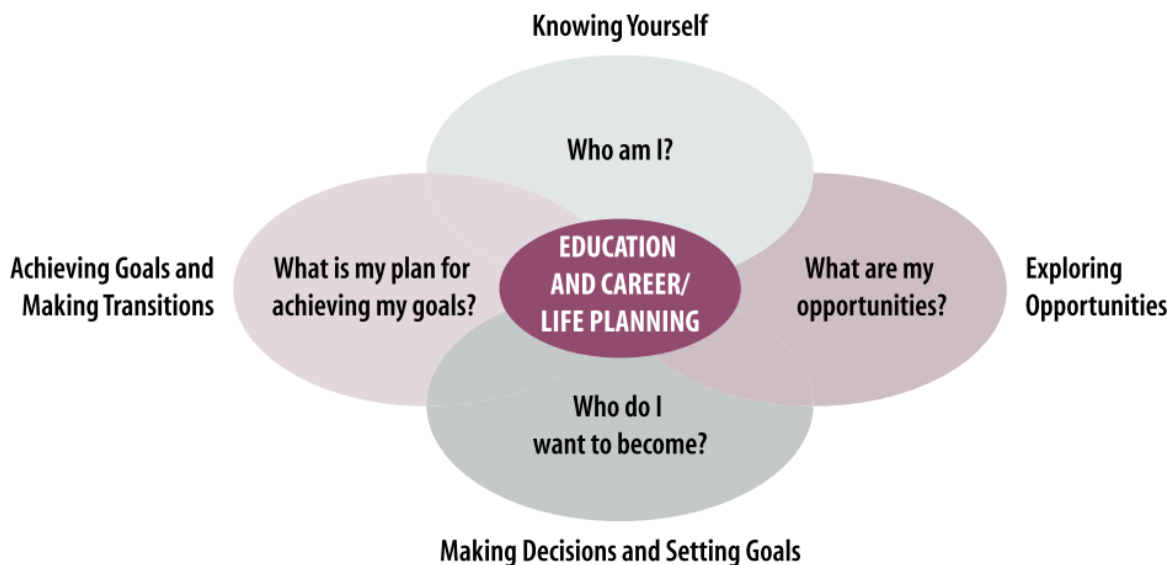
Additionally, there is a field titled **Reflection - Assessment AS Learning** that has a number of questions specific to each project that students can engage in upon completion.

Pathways Considerations

As with everything we do as educators, this work is done through the lens of the K-12 Career/Life Planning program, where students work to develop the skills and knowledge to make the career/life choices they need to, opportunities to reflect on and apply this learning, and engage families and the broader community in supporting students in their learning.

There are a number examples throughout this document where students are asked to reflect on:

- who they are as a learning, including their strengths and interests;
- their pathways opportunities, both in secondary and post-secondary;
- decisions now that may affect their future.



Source: Ontario Cooperative Education Curriculum Grades 11 & 12, pg. 9

The ideas presented in this document are just that - ideas. While many come with instructions and are ready-to-go, others will need to be altered and/or adapted to meet the needs of your students, your budget, your facilities, your geography, etc. Ultimately, your partnership will be unique, and we hope that you find much success and empathy in the journey.

Communication Technology: *Creating a Digital Storytelling Project*

Empathy Development

A digital storytelling project allows students to engage in deep conversations with residents to gain an understanding of their experiences, challenges, and triumphs. This process fosters respect and appreciation for the wisdom and history that seniors possess. Creating and sharing these stories helps students see seniors as individuals with rich pasts, cultivating empathy and a personal connection. Learning about someone's history and backstory allows for an intimate look at how their history shaped who they are and what the person they have become.

Course Codes & Curriculum

TAS10/20 TGJ 3M/O TGJ 4M/O TEJ 3M/E TEJ 4M/E

Grade 7 & 8 Language - A2.6 Innovation and Design, D2. Creating Texts

Possible Community Partners

- ❖ Local Radio and/or Television Stations
- ❖ Post-Secondary Institutions running programs in: Media, Filmmaking, Digital Media Production, Television and Film Production, etc.
- ❖ Video production, visual effects, animation and photography companies
- ❖ Journalist and/or Local Newspapers
- ❖ Clubs or Organizations within the school (e.g. Yearbook, A/V Club)

Sample Lesson Plan

Lesson Plan: Creating a Digital Storytelling Project

Objective: Students will create a digital storytelling project featuring the life stories of seniors in the care home. This will foster empathy by understanding and sharing seniors' life stories.

Students can create digital content such as newsletters, videos, and websites to share stories and experiences of seniors.

Students can also implement projects involving virtual reality (VR) experiences for seniors to revisit their past or explore new places.

Materials: Computers, video cameras, audio recorders, editing software (e.g., Adobe Premiere, Audacity).

Activities:

- **Introduction (1 class):** Discuss the importance of storytelling and introduce digital storytelling techniques.
 - **Storytelling Importance:** Discuss the importance of storytelling in preserving history and creating connections.
 - **Digital Storytelling Overview:** Introduce the components of digital storytelling (audio, video, narrative).
- **Interview Preparation (1 class):** Teach students how to conduct interviews, including preparing questions.
 - **Pairing:** Pair students with seniors.
 - **Interview Training:** Guide students on how to conduct interviews. Provide a list of questions and interview techniques
 - **Recording Techniques:** Teach students how to use recording devices.
- **Interview Sessions (2-3 classes):** Pair students with seniors and conduct interviews.
 - **Transcription:** Assist students in transcribing their interviews.
 - **Narrative Structure:** Help students create a narrative structure for their stories.
 - **Highlight Key Moments:** Guide students in selecting key moments to highlight.
- **Editing and Production (3-4 classes):** Students edit their interviews into cohesive digital stories, adding music, photos, and other elements.
 - **Video Editing Training:** Teach students how to use video editing software.
 - **Creation:** Assist students in creating their digital stories, combining audio, video, and text.

- **Presentation and Reflection (1-2 classes):** Students present their projects to the class and seniors, followed by a reflection session on what they learned from the seniors' stories.

- **Assessment:**
 - **Evaluate Stories:** Evaluate the digital stories based on creativity, technical skills, and narrative coherence.
 - **Reflection Assessment:** Assess students' reflections on their understanding and empathy developed.

- **Empathy Development:** Students develop empathy by listening to and documenting seniors' stories, gaining a deeper understanding of their experiences and challenges.

Worksheet

Communications Technology: Digital Storytelling Project

Student Worksheet

1. Storyboard Planning:

- Sketch the main scenes of your digital story. Include captions or descriptions for each scene.
- Plan interview questions that will help capture the senior's story effectively.
- List three open-ended questions you could ask a senior to encourage them to share their life experiences:
 - i. Question 1: _____
 - ii. Question 2: _____
 - iii. Question 3: _____
- What aspects of the senior's life story do you think would be most interesting to highlight in the digital story? Why?

2. Recording and Editing:

- Outline the key steps involved in editing and producing your digital story:
 - i. Step 1: _____
 - ii. Step 2: _____
 - iii. Step 3: _____
- List the equipment needed for recording (camera, microphone, etc.).
- Describe the editing software you will use. What features will you utilize to enhance your digital story?

3. Presentation Preparation:

- Outline key points you will cover in your presentation to the class and seniors.
- How will you engage your audience during the presentation?

4. Reflection:

- Reflect on the challenges faced during the project. How did you overcome them?
- What did you learn about storytelling and digital media through this project?

Guide for Long-Term Care Home Residents

Communications Technology: Digital Storytelling Project

Guide for Long-Term Care Home Residents:

1. Introduction to Digital Storytelling:

- Learn about the process of capturing and sharing stories through digital media.
- Understand how storytelling can preserve memories and experiences.

2. Participation in Interviews:

- Share your life experiences, stories, and memories with students.
- Feel comfortable expressing yourself during interviews.

3. Feedback and Collaboration:

- Provide feedback on storyboards and digital media drafts created by students.
- Collaborate with students to ensure your story is accurately represented.

4. Enjoy the Final Presentation:

- Attend the presentation of digital stories created by students.
- Celebrate and share your story with the community.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Plus/Delta](#) for mid-way check-ins
- [Benefits to Society](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Communications Technology: Digital Storytelling Projects

Name: _____

Date: _____

1. Describe the digital storytelling project you worked on. What was the main focus or theme of your project?

2. What challenges did you face during the project? How did you address them?

3. How did you ensure that the seniors' stories were represented accurately and respectfully?

4. What new skills did you develop during this project?

5. Reflect on the impact of your project on the seniors. How do you think it affected them?

6. How did this project help you understand the importance of digital storytelling in preserving personal histories?

7. What would you do differently if you were to start this project again?

8. Overall, how satisfied are you with the final product? Why?

Ideas for Next Steps

- **Film Showcase Evening**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on an *Information and Communications Technology* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. digital photography, graphic design, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a radio or television station, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Manufacturing. One example of this could be to a local radio station to learn about how the process of audio production works at a professional level.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Communications* BBT, such as:
 - Information Technology - Contact Centre Customer Service Agent
 - Information Technology - Hardware Technician
 - Network Cabling Specialist
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 16: Peace, Justice, and Strong Institutions](#) fits well.
- **[TGJ3M: Creating a Podcast](#)** (from octe.ca) - This assignment will provide the learner with an opportunity to understand the exciting world of Podcasting. The learner will understand concepts, terms, and equipment associated with podcasts, and will demonstrate their knowledge by creating, choosing a topic, creating a script or outline, and producing a podcast.
- **[STEM TakeTech Challenge Kit - Communication](#)** (Gr. 7 & 8)

Sample Rubric

Communications Technology: Digital Storytelling Projects

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Interviewing Skills	Conducts interviews with excellent preparation, sensitivity, and insight.	Conducts interviews with good preparation and sensitivity.	Conducts interviews with some preparation, lacks sensitivity.	Interviews are poorly prepared and insensitive.
Narrative Structure	Story is exceptionally well-structured and compelling.	Story is well-structured and interesting.	Story has a basic structure but lacks depth.	Story is poorly structured and unengaging.
Technical Skills	Demonstrates excellent use of audio/video editing tools.	Demonstrates good use of audio/video editing tools.	Demonstrates basic use of audio/video editing tools.	Demonstrates poor use of audio/video editing tools.
Creativity	Highly creative and original storytelling.	Creative and original storytelling.	Somewhat creative, with few original elements.	Lacks creativity and originality.

Empathy and Understanding	Shows deep understanding and empathy for seniors' stories.	Shows good understanding and empathy for seniors' stories.	Shows some understanding and empathy for seniors' stories.	Lacks understanding and empathy for seniors' stories.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Communications Technology: Digital Storytelling Projects</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Interviewing Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students demonstrate thorough preparation for interviews. <input type="checkbox"/> Students show sensitivity and respect during interviews. <input type="checkbox"/> Students ask thoughtful and relevant questions. ● Narrative Structure <ul style="list-style-type: none"> <input type="checkbox"/> Students create a clear and compelling story structure. <input type="checkbox"/> The story flows smoothly and is engaging. ● Technical Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students use audio editing tools effectively. <input type="checkbox"/> Students use video editing tools effectively. <input type="checkbox"/> The final product is polished and professional. ● Creativity <ul style="list-style-type: none"> <input type="checkbox"/> Students demonstrate creativity in their storytelling approach. <input type="checkbox"/> The project is unique and interesting. ● Empathy and Understanding <ul style="list-style-type: none"> <input type="checkbox"/> Students show empathy towards the seniors' experiences. <input type="checkbox"/> Students accurately and respectfully represent the seniors' stories. ● Reflection Quality <ul style="list-style-type: none"> <input type="checkbox"/> Students provide thoughtful reflections on their learning experience. <input type="checkbox"/> Reflections connect deeply with the project outcomes.

Communications Technology: Digital Storytelling Projects

- **Strengths:**
 - Your storytelling was compelling, capturing the essence of the senior's life experiences effectively.
 - The use of editing software and media elements enhanced the narrative, creating a poignant story.
 - Your presentation to the class and the seniors was engaging and well-received.
- **Areas for Improvement:**
 - Consider adding more reflections and personal insights from the senior to enrich the narrative further.
 - Pay attention to transitions and pacing in your editing to maintain coherence throughout the story.
 - Continue to refine your presentation skills to ensure clarity and impact.

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Computer Technology: *Basic Computer Skills Workshops*

Empathy Development

Teaching seniors how to use computers requires patience and clear communication. Students will experience the challenges seniors face when learning new technology, enhancing their empathy for the difficulties of adapting to digital advancements. By helping seniors stay connected with loved ones and the world, students recognize the importance of technology in reducing isolation and promoting well-being.

Course Codes

TAS10/20 TGJ 3M/O TGJ 4M/O TEJ 3M/E TEJ 4M/E

Grade 7 & 8	Language - A2. Digital Media Literacy, D3. Presenting, Publishing & Reflecting
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Possible Community Partners

- ❖ Local IT Business
- ❖ Local Public Libraries
- ❖ Police Services (relating to cybercrimes on vulnerable populations)

Sample Lesson Plan

Computer Technology: Basic Computer Skills Workshops

Lesson Plan: Teaching Basic Computer Skills

Objective: Students will teach seniors basic computer skills, including internet browsing, email, and social media. This will foster empathy by understanding the challenges seniors face with technology.

Students can also develop software or applications tailored to the needs of seniors, such as health monitoring apps.

Materials: Computers, internet access, printed guides.

Activities:

- **Introduction (1 class):**
 - Discuss the digital divide and its impact on seniors.
 - Explain the importance of digital literacy for seniors.
- **Lesson Planning (1 class):**
 - Have students create simple tutorials on basic computer skills (e.g., using email, browsing the internet).
 - Students create lesson plans for teaching different computer skills.
- **Teaching Sessions (4-5 classes):**
 - Pair students with seniors. Students conduct hands-on teaching sessions with seniors, guiding them through basic computer tasks.
 - Encourage seniors to practice what they've learned with students providing assistance.
- **Practice and Support (1 class):**
 - Allow seniors to practice what they've learned with students providing assistance.
 - Address any questions or difficulties seniors may have.
- **Reflection and Support (2 classes):**
 - Provide ongoing support and troubleshooting help for seniors.
 - Conduct a reflection session on the challenges and successes of the workshop.

Assessment:

- **Student Evaluation:** Evaluate students' ability to teach and communicate effectively.
- **Reflection Assessment:** Assess reflections on students' understanding and empathy.

Empathy Development: Students develop empathy by experiencing the challenges seniors face when learning new technologies and helping them overcome these barriers.

Worksheet

Computer Technology: Basic Computer Skills Workshops

Student Worksheet

1. Basic Skills Practice:

- Practice opening and navigating internet browsers. Describe any difficulties you encountered.
- Send a sample email to a classmate or teacher. What did you learn from this activity?
- Name three common web browsers seniors can use to access the internet:
 - i. Browser 1: _____
 - ii. Browser 2: _____
 - iii. Browser 3: _____

2. Software Exploration:

- List the steps to perform a Google search. Be detailed in your instructions.
- Explain the purpose of an email attachment. How would you attach a photo to an email?
- Explore basic software applications (word processing, spreadsheet, etc.). Write down one new thing you learned about each.

3. Troubleshooting:

- List common computer problems seniors may face. How would you troubleshoot these issues?
- Role-play helping a senior with a specific computer task. Describe your approach and the outcome.

4. Reflection:

- Reflect on your experience teaching basic computer skills to seniors. What skills do you feel most confident in teaching?
- How can you continue to improve your teaching approach in future sessions?

Guide for Long-Term Care Home Residents

Computer Technology: Basic Computer Skills Workshops

Guide for Long-Term Care Home Residents:

1. **Introduction to Computers:**
 - Explore basic computer hardware and software components.
 - Learn the benefits and uses of computers in daily life.
2. **Hands-on Learning:**
 - Practice using a keyboard and mouse to navigate computer interfaces.
 - Discover how to browse the internet and search for information.
3. **Email Communication:**
 - Set up and manage your email account.
 - Learn to send and receive emails and attachments.
4. **Software Applications:**
 - Introduction to word processing and spreadsheet software.
 - Explore how to create and edit documents and manage basic finances.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Exit Tickets](#) for mid-way check-ins
- [Playing Card Debrief](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Computer Technology: Basic Computer Skills Workshops

Reflection Worksheet

Name: _____

Date: _____

1. What computer skills did you teach to the seniors during the workshop?

2. What were the most common challenges seniors faced while learning these skills?

3. How did you adapt your teaching methods to accommodate the seniors' learning needs?

4. What did you learn about patience and communication through this workshop?

5. In what ways did this experience enhance your understanding of digital literacy for seniors?

6. How do you think the seniors benefited from the computer skills you taught them?

7. What aspects of the workshop went well, and what could be improved for future sessions?

8. How did this experience influence your view on technology's role in senior care?

Ideas for Next Steps

- **Partner with a local elementary school and teach younger students (Gr. 4-6) a similar presentation, focusing on digital citizenship**
- **Publish a How-To Guide that can be left with the Long-Term Care Home after students have concluded this project**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on an *Information and Communications Technology* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. production techniques, CNC programming, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on computer technology, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Computer Technology. One example could be to a software development company.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Computer Technology* BBT, such as:
 - Information Technology - Contact Centre Customer Service Agent
 - Information Technology - Contact Centre Technical Support Agent
 - Network Cabling Specialist
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 4: Quality Education](#) fits well.
- **[TEJ3M/4M: Game Development Using Microcontroller](#)** (from octe.ca) - this project involves the creation of a game using an Arduino microcontroller. Students creating games to play with residents may be an extension that students may wish to pursue.
- **[STEM TakeTech Challenge Kit - Computer Technology](#)** (Gr. 7 & 8)

Sample Rubric

Computer Technology: Basic Computer Skills Workshops

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Preparation of Tutorials	Tutorials are comprehensive, clear, and user-friendly.	Tutorials are clear and user-friendly.	Tutorials are somewhat clear but may lack detail.	Tutorials are unclear and difficult to follow.
Teaching Skills	Demonstrates exceptional teaching skills and patience.	Demonstrates good teaching skills and patience.	Demonstrates basic teaching skills, occasionally lacks patience.	Demonstrates poor teaching skills and lacks patience.
Technical Knowledge	Excellent understanding of computer skills being taught.	Good understanding of computer skills being taught.	Basic understanding of computer skills being taught.	Poor understanding of computer skills being taught.
Student-Senior Interaction	Interacts with seniors in a highly respectful and engaging manner.	Interacts with seniors respectfully and engages well.	Interacts with seniors respectfully but with limited engagement.	Interaction with seniors lacks respect and engagement.

Empathy and Understanding	Shows deep empathy for seniors' learning challenges.	Shows good empathy for seniors' learning challenges.	Shows some empathy for seniors' learning challenges.	Lacks empathy for seniors' learning challenges.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Computer Technology: Basic Computer Skills Workshops</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Preparation of Tutorials <ul style="list-style-type: none"> <input type="checkbox"/> Tutorials are comprehensive and user-friendly. <input type="checkbox"/> Tutorials are easy for seniors to follow. ● Teaching Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students demonstrate clear explanations of concepts. <input type="checkbox"/> Students exhibit patience with the learners. ● Technical Knowledge <ul style="list-style-type: none"> <input type="checkbox"/> Students show a thorough understanding of the computer skills being taught. <input type="checkbox"/> Students can effectively troubleshoot common issues. ● Student-Senior Interaction <ul style="list-style-type: none"> <input type="checkbox"/> Students interact with seniors respectfully. <input type="checkbox"/> Students engage seniors effectively in the learning process. ● Empathy and Understanding <ul style="list-style-type: none"> <input type="checkbox"/> Students show empathy towards the seniors' learning challenges. <input type="checkbox"/> Students create a supportive learning environment. ● Reflection Quality <ul style="list-style-type: none"> <input type="checkbox"/> Students provide thoughtful reflections on their teaching experience. <input type="checkbox"/> Reflections highlight key lessons learned.
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Computer Technology: Basic Computer Skills Workshops

- **Strengths:**
 - You demonstrated a clear understanding of internet browsing, email, and basic software use.
 - Your patience and empathy with the seniors were evident throughout the teaching sessions.
 - Seniors showed improvement in their computer skills under your guidance.
- **Areas for Improvement:**
 - Ensure instructions are articulated clearly to accommodate varying levels of familiarity with technology.
 - Continue to foster an inclusive learning environment that encourages seniors to ask questions and explore.
 - Consider integrating more interactive activities to reinforce learning and engagement.

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Construction Technology: *Building Accessibility Projects*

Empathy Development

Students will learn about the physical limitations that seniors may face and the importance of accessible environments. By working on projects that directly impact seniors' mobility and safety, students will develop a deeper understanding of the necessity for inclusive design. This hands-on experience promotes empathy by highlighting the daily challenges seniors encounter and the impact of thoughtful construction.

Course Codes

TAS 10/20 TCJ 3C/3E TCJ 4C/4E TWJ 3E/4E

Grade 7 & 8 | Mathematics - E1. Geometric and Spatial Reasoning, E2. Measurement

Possible Community Partners

- ❖ Local Greenhouses
- ❖ Hardware Stores
- ❖ Construction Companies
- ❖ Municipal Accessibility Resources
- ❖ Habitat for Humanity

Sample Lesson Plan

Construction Technology: Building Accessibility Projects

Lesson Plan: Building Accessibility Projects

Objective: Students will design and construct small accessibility projects or improvements within the care home, like ramps or garden beds.

Students can also engage in virtual or real-world projects that involve designing senior-friendly living spaces. Students will foster empathy by understanding the physical limitations of seniors.

Materials: Design software, construction tools, materials (wood, nails, paint).

Activities:

- **Introduction (1 class):**
 - Discuss the importance of accessibility in public and private spaces and introduce basic construction techniques.
 - Introduce the principles of universal design.
- **Needs Assessment (1 class):**
 - **Tour:** Tour the facility with students and seniors to identify areas that need improvement.
 - **Challenges Discussion:** Discuss the challenges faced by seniors in those areas.
- **Design Phase (2-3 classes):**
 - Students work in groups to create designs for accessibility improvements (e.g., ramps, wider doorways).
 - Teacher reviews designs with a focus on feasibility and safety.
- **Construction Phase (4-5 classes):**
 - Students build their projects, ensuring they follow safety protocols.
 - Teacher guides students in building the accessibility improvements.
 - Involve seniors in the process, seeking their input and feedback.
- **Presentation and Evaluation (1-2 classes):**
 - Test the new improvements with seniors and gather their feedback.
 - Present completed projects to the care home and receive feedback.
 - Conduct a reflection session on the importance of accessibility.

Assessment:

- **Evaluate Designs:** Evaluate the designs and completed construction projects for functionality and safety.
- **Reflection Assessment:** Assess reflections on students' understanding and empathy.

Empathy Development: Students develop empathy by understanding the physical challenges seniors face and creating solutions to improve their mobility and independence.

Worksheet**Construction Technology: Building Accessibility Projects****Student Worksheet****1. Project Planning:**

- Identify three safety considerations when building your project in the care home environment:
 - i. Safety Consideration 1: _____
 - ii. Safety Consideration 2: _____
 - iii. Safety Consideration 3: _____
- Sketch the initial design of your accessibility project. Label key features and materials needed.
- List potential challenges you anticipate during the construction phase. How will you address them?

2. Construction Skills Practice:

- List the materials and tools you will need to construct your project. Be specific.
- Practice using construction tools safely. Describe one tool you used and its purpose.
- What safety measures should be followed when working on a construction site?

3. Team Collaboration:

- Discuss your role within the project team. How will you contribute to its success?
- How will you communicate effectively with team members to ensure everyone is on the same page?

4. Reflection:

- Reflect on the progress of your accessibility project. What milestones have you achieved so far?

- What lessons have you learned about construction technology and project management through this experience?

Guide for Long-Term Care Home Residents

Construction Technology: Building Accessibility Projects

Guide for Long-Term Care Home Residents:

1. **Understanding Accessibility Needs:**
 - Participate in discussions about accessibility challenges faced by seniors.
 - Provide insights into areas where accessibility improvements are needed.
2. **Observation and Input:**
 - Observe and offer feedback on project plans and designs created by students.
 - Share your perspective on the usability and practicality of proposed solutions.
3. **Participation in Construction:**
 - Engage in safe and supervised activities related to construction projects.
 - Assist with tasks that match your abilities and interests.
4. **Celebration of Completion:**
 - Attend the unveiling and use of accessibility solutions created by students.
 - Appreciate the improved accessibility in community spaces.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Reflection Bingo](#) for mid-way check-ins
- [Later Letter](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Construction Technology: Building Accessibility Projects

Reflection Worksheet

Name: _____

Date: _____

1. Describe the accessibility project you worked on. What was its primary objective?

2. What were the key challenges in designing and constructing the accessibility features?

3. How did you ensure that the project met safety and compliance standards?

4. What skills did you develop through working on this project?

5. Reflect on the impact of the project on the seniors. How do you think it improved their daily lives?

6. How did this project increase your awareness of the importance of accessibility in construction?

7. If you were to do this project again, what changes would you make?

8. Overall, how do you feel about the final outcome of the project? Why?

Ideas for Next Steps

- **Create a time-lapse video chronicling the construction and installation of the accessibility product**
- **Testimonials from long-term care residents about the impact the accessibility project**
- **Partnering with the Life-Skills program at the school to determine if they have any accessibility needs that could be addressed in a similar way**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on a *Construction* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. construction applications, cabinetry, general carpenter, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on construction trades, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Construction. One example of this could be to visit a local greenhouse/gardening centre to learn about the principles of landscaping and how a project develops from start to finish.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Construction* BBT, such as:
 - Cement (Concrete) Finisher
 - Construction Boilermaker
 - Powerline Technician
 - Sheet Metal Worker
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 10: Reduced Inequalities](#) fits well.
- **[TCJ10: Tools for measuring](#)** (from octe.ca) - exploring construction technology
- **[TCJ10/20: Wood Joint Box](#)** (from octe.ca) - This project focuses on the trades of cabinetmaking and carpentry. In both fields, basic level apprenticeship training requires the development of proficient hand tool techniques. This project focuses solely on hand tools in order to learn about and layout and cut four different wood joints.
- **[STEM TakeTech Challenge Kit - Construction](#)** (Gr. 7 & 8)

Sample Rubric

Construction Technology: Building Accessibility Projects

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Needs Assessment	Thorough and insightful assessment of accessibility needs.	Good assessment of accessibility needs.	Basic assessment of accessibility needs.	Incomplete or inaccurate assessment of accessibility needs.
Design Quality	Designs are highly innovative, functional, and feasible.	Designs are functional and feasible.	Designs are somewhat functional but may lack feasibility.	Designs are poorly thought out and unfeasible.
Construction Skills	Demonstrates excellent construction skills and attention to detail.	Demonstrates good construction skills and attention to detail.	Demonstrates basic construction skills, with some errors.	Demonstrates poor construction skills with many errors.
Safety and Compliance	Adheres strictly to safety and accessibility standards.	Mostly adheres to safety and accessibility standards.	Partially adheres to safety and accessibility standards.	Poor adherence to safety and accessibility standards.

Empathy and Understanding	Shows deep empathy and understanding of seniors' mobility challenges.	Shows good empathy and understanding of seniors' mobility challenges.	Shows some empathy and understanding of seniors' mobility challenges.	Lacks empathy and understanding of seniors' mobility challenges.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Construction Technology: Building Accessibility Projects</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Needs Assessment <ul style="list-style-type: none"> <input type="checkbox"/> Students conduct thorough assessments of accessibility needs. <input type="checkbox"/> Assessments show insight into the challenges faced by seniors. ● Design Quality <ul style="list-style-type: none"> <input type="checkbox"/> Designs are innovative and functional. <input type="checkbox"/> Designs demonstrate a strong understanding of accessibility. ● Construction Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students show excellent construction skills. <input type="checkbox"/> Attention to detail is evident in the work produced. ● Safety and Compliance <ul style="list-style-type: none"> <input type="checkbox"/> Projects adhere strictly to safety standards. <input type="checkbox"/> Projects meet all accessibility compliance requirements. ● Empathy and Understanding <ul style="list-style-type: none"> <input type="checkbox"/> Students show empathy towards the mobility challenges of seniors. <input type="checkbox"/> Students create solutions that address seniors' needs effectively. ● Reflection Quality <ul style="list-style-type: none"> <input type="checkbox"/> Students provide insightful reflections on their experience. <input type="checkbox"/> Reflections highlight the importance of accessibility.

Teacher Comment Bank

- **Strengths:**
 - Your project design was thoughtful, addressing key accessibility needs with precision and creativity.
 - You demonstrated excellent construction skills, ensuring safety protocols were followed throughout the process.
 - Collaboration within your team was effective, contributing to the successful completion of the project.
- **Areas for Improvement:**
 - Consider conducting thorough research to explore additional innovative solutions for accessibility.
 - Continue to refine your project management skills to optimize planning and execution timelines.
 - Reflect on challenges faced during construction and identify strategies for improvement in future projects.

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Green Industries: *Creating a Community Garden*

Empathy Development

Working side-by-side with seniors in a garden setting allows students to witness the therapeutic and social benefits of gardening. Students will understand the importance of nature and outdoor activities for seniors' mental and physical health. This collaborative effort fosters mutual respect and empathy as students see the positive effects of their work on seniors' well-being.

Course Codes

THJ 3M/3E THJ 4M/4E

Grade 7 & 8	Science - A1. STEM Investigation and Communication Skills, B2. Exploring and Understanding Systems (Gr. 7)
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Possible Community Partners

- ❖ Indigenous Groups or Individuals to consider a land-based learning approach, or to plant and educate about a Three Sisters garden
- ❖ Local Greenhouses or Nurseries
- ❖ Local Hardware Stores for Consumables
- ❖ Learning for a Sustainable Future (<https://lsf-lst.ca/>)

Sample Lesson Plan

Green Industries: Creating a Community Garden

Lesson Plan: Creating a Community Garden

Objective: Students will plan, create, and maintain a community garden with the involvement of seniors in gardening activities. This will foster empathy by working collaboratively with seniors in a therapeutic setting.

Students can implement sustainability projects like composting or recycling programs within the care home.

Materials: Gardening tools, seeds, soil, plants.

Activities:

- **Introduction (1 class):**
 - Discuss the benefits of gardening and sustainable practices for physical and mental health
- **Planning Phase (2 classes):**
 - Collaborate with seniors to design the layout of the community garden.
 - Select plants that are suitable for the climate and soil.
- **Planting Phase (3 classes):**
 - Prepare the soil and plant the seeds/plants with seniors' help.
 - Teach proper planting techniques and care.
- **Maintenance and Education (ongoing):**
 - Schedule regular times for students to visit and care for the garden with seniors.
 - Regular garden maintenance and educational sessions on sustainable gardening practices.
 - Discuss the importance of consistent care and monitoring.
- **Harvest and Celebration (1-2 classes):**
 - Harvest the produce and organize a celebration event with the seniors.
 - Conduct a reflection session on the gardening experience.

Assessment:

- **Evaluate Garden:** Evaluate the health and productivity of the garden.
- **Reflection Assessment:** Assess reflections on students' understanding and empathy.

Empathy Development: Working together in the garden allows students to see the therapeutic benefits for seniors, fostering a sense of community and mutual respect.

Worksheet

Green Industries: Creating a Community Garden

1. Garden Design Planning:

- Draw a sketch of your community garden layout. Label where you will plant flowers, vegetables, and herbs. Include spaces for different types of plants and pathways.
- Research native plants suitable for your community garden. List three benefits of using native plants.

2. Planting and Maintenance:

- Create a planting schedule for your garden. What plants will be planted in each season?
- Describe one sustainable gardening practice you will implement in your community garden.
- Create a maintenance schedule for your garden, including tasks for each season (spring, summer, fall).

3. Community Engagement:

- How will you promote community involvement in the garden project? List potential activities or events.
- Discuss the benefits of community gardens for seniors and the broader community.

4. Reflection:

- Reflect on your role in creating the community garden. What challenges did you encounter, and how did you overcome them?
- How has this experience impacted your understanding of green industries and community engagement?

Guide for Long-Term Care Home Residents

Green Industries: Creating a Community Garden

Guide for Long-Term Care Home Residents:

1. **Introduction to Gardening:**
 - Learn about the benefits of gardening for physical and mental well-being.
 - Explore different types of plants and their care requirements.
2. **Participation in Garden Design:**
 - Contribute ideas for the layout and design of the community garden.
 - Share preferences for plants and features that would enhance the garden.
3. **Planting and Maintenance:**
 - Participate in planting sessions and ongoing maintenance activities.
 - Learn gardening techniques and sustainable practices from students.
4. **Enjoying the Garden:**
 - Spend time in the community garden, enjoying its beauty and tranquility.
 - Attend workshops and events hosted in the garden space.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Getting on the same P.A.G.E.](#) to set the initial stage
- [Exit Tickets](#) for mid-way check-ins
- [Reflection Bingo](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Green Industries: Creating a Community Garden

Reflection Worksheet

Name: _____

Date: _____

1. What were the main goals of the community garden project?

2. What challenges did you encounter while designing and implementing the garden?

3. How did you incorporate seniors' preferences and needs into the garden design?

4. What new skills or knowledge did you gain from this project?

5. Reflect on how the community garden project benefited the seniors and the community.

6. How did this project influence your understanding of sustainable practices and community involvement?

7. What aspects of the garden project were successful, and what improvements would you suggest?

8. How did working on this project affect your view of green industries and their impact on communities?

Ideas for Next Steps

- **Let's Talk Science offers "Project Tomatosphere"** (<https://letstalkscience.ca/ts>) in which students will plant two groups of seeds and compare the number of seeds that germinate from each. One set of seeds has been sent to the International Space Station, and the other set, the "control" seeds, have not.
- **Consider planning a school garden (vegetable, pollinator, etc.)**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on either an *Agriculture or Horticulture and Landscaping* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. arboriculture and chainsaw practices, introduction to horticulture, equipment maintenance, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on fields related to green industries, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Green Industries. One example of this could be to visit with an Indigenous partner to learn about which plants are native to the area, and about sustainable gardening practices.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Green Industries* BBT, such as:
 - Agricultural - Fruit Grower
 - Arborist
- **UN Sustainable Development Goals (SDGs)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 11: Sustainable Cities and Communities](#) fits well.
- **THJ10 - Home Grown Vegetables and Herbs** (from [octe.ca](#)) - Students will identify and explain the impact that growing our own food crops had on civilization. Students will demonstrate an understanding of where food comes from and the importance of growing our own food; of soil basics, plant nutrition, seed germination and plant care; and learning skills that include responsibility, organization, independent work, initiative and self-regulation.
- **THJ20: Designing a Greenhouse** (from [octe.ca](#)) - Based on concepts studied in class, students will design and construct a scale model of a greenhouse using teacher-approved materials.
- **THJ3M: Sensory Garden Design** (from [octe.ca](#)) - Students will design a sensory garden of their choice. In this instance, the area to be designed in this instance is for a flower bed 3' wide, 5' long and 3' high. The design must be wheelchair accessible from all sides. Students will research the different sensory plants and how they are accented in landscape design. This activity will begin with discussions on touch, smell, sound, taste, and sight and their role they play for those who have sensory processing issues.
- **STEM TakeTech Challenge Kit - Green Industries** (Gr. 7 & 8)

Sample Rubric

Green Industries: Creating a Community Garden

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Planning and Design	Garden design is exceptionally well-planned and sustainable.	Garden design is well-planned and mostly sustainable.	Garden design is basic with some sustainability considerations.	Garden design is poorly planned and lacks sustainability.
Collaboration	Collaborates with seniors exceptionally well and values their input.	Collaborates with seniors well and considers their input.	Collaborates with seniors but may not fully consider their input.	Poor collaboration with seniors and disregards their input.
Gardening Skills	Demonstrates excellent gardening skills and knowledge.	Demonstrates good gardening skills and knowledge.	Demonstrates basic gardening skills with some errors.	Demonstrates poor gardening skills with many errors.
Sustainability Practices	Adheres to sustainable practices comprehensively.	Mostly adheres to sustainable practices.	Partially adheres to sustainable practices.	Poor adherence to sustainable practices.

Empathy and Understanding	Shows deep empathy and understanding of seniors' preferences and needs.	Shows good empathy and understanding of seniors' preferences and needs.	Shows some empathy and understanding of seniors' preferences and needs.	Lacks empathy and understanding of seniors' preferences and needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Green Industries: Creating a Community Garden</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Planning and Design <ul style="list-style-type: none"> <input type="checkbox"/> Garden designs are well-planned and sustainable. <input type="checkbox"/> Designs reflect a deep understanding of environmental and senior needs. ● Collaboration <ul style="list-style-type: none"> <input type="checkbox"/> Students collaborate effectively with seniors. <input type="checkbox"/> Seniors' input is valued and incorporated into the project. ● Gardening Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students demonstrate strong gardening skills. <input type="checkbox"/> The garden is well-maintained and thriving. ● Sustainability Practices <ul style="list-style-type: none"> <input type="checkbox"/> Students adhere to sustainable gardening practices. <input type="checkbox"/> The garden is environmentally friendly. ● Empathy and Understanding <ul style="list-style-type: none"> <input type="checkbox"/> Students show empathy towards seniors' preferences. <input type="checkbox"/> The garden reflects the seniors' desires and needs. ● Reflection Quality <ul style="list-style-type: none"> <input type="checkbox"/> Students provide insightful reflections on their experience. <input type="checkbox"/> Reflections highlight the impact of community gardens.

Teacher Comment Bank

Green Industries: Creating a Community Garden

- **Strengths:**
 - Your garden design effectively utilized space and incorporated sustainable gardening practices.
 - Plants were selected and planted with consideration for seasonal needs and climate suitability.
 - You actively engaged seniors in gardening activities, fostering a sense of community involvement.
- **Areas for Improvement:**
 - Consider expanding your knowledge of native plants and their benefits to further enhance garden biodiversity.
 - Continue to monitor and adjust maintenance practices to ensure the long-term health and productivity of the garden.
 - Explore opportunities to integrate educational sessions that promote sustainable gardening practices among seniors.

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Hairstyling and Aesthetics: *Providing Self- Care Services*

Empathy Development

Providing beauty services allows students to directly interact with seniors, understanding their desires for personal care and confidence. This activity teaches students to appreciate the significance of self-care and dignity for seniors. By enhancing seniors' well-being through personalized attention, students develop empathy and compassion for their emotional and physical needs.

Course Codes

TXJ 3E/4E

Grade 7 & 8 | N/A

Possible Community Partners

- ❖ Local Hair Salons
- ❖ Local Spas
- ❖ Colleges with an Esthetics Program

Sample Lesson Plan

Hairstyling and Aesthetics - Providing Self- Care Services

Lesson Plan: Providing Beauty Services

Objective: Students will provide basic hairstyling, beauty and aesthetics services to seniors, enhancing their well-being. Students will foster empathy by providing personalized beauty services to seniors.

Students can organize workshops where seniors can learn or receive beauty and grooming services.

Materials: Hairstyling tools (scissors, combs, etc.), beauty products (lotions, nail polish, etc.), mirrors.

Activities:

- **Introduction (1 class):**
 - Discuss the importance of grooming, personal care and aesthetics for seniors' self-esteem.
- **Skill Development (2-3 classes):**
 - Introduce basic hairstyling and aesthetics techniques.
 - Practice basic hairstyling and beauty techniques.
- **Service Sessions (3-4 classes):**
 - Pair students with seniors for personalized beauty services.
 - Provide beauty services to seniors, ensuring a respectful and comfortable environment.
 - Students will provide haircuts, styling, manicures, etc.
- **Reflection and Feedback (1 class):**
 - Gather feedback from seniors on the services provided.
 - Conduct a reflection session on the experience and empathy development.

Assessment:

- Evaluate the quality of the beauty services provided.
- Assess reflections on students' understanding and empathy.

Empathy Development:

- Providing beauty services helps students understand the importance of personal care for seniors' self-esteem and emotional well-being, fostering empathy through personalized attention and care.

Worksheet

Hairstyling and Aesthetics - Providing Self- Care Services

1. Service Preparation:

- List three hairstyling techniques you will practice before providing services to seniors:
 - i. Technique 1: _____
 - ii. Technique 2: _____
 - iii. Technique 3: _____
- List essential hairstyling and beauty techniques you will use to provide services to seniors.
- Outline a typical beauty session plan, including steps from consultation to service delivery.

2. Professionalism and Hygiene:

- Describe how you will ensure the salon environment is welcoming and comfortable for seniors during their service.
- Discuss the importance of professionalism and hygiene when providing beauty services to seniors. What practices will you prioritize?
- Role-play a scenario where you address a senior's beauty concerns with empathy and respect. Describe your approach and outcome.

3. Client Interaction:

- How will you communicate effectively with seniors during beauty sessions to understand their preferences and expectations?
- List potential challenges you may encounter and strategies to ensure seniors' comfort and satisfaction.

4. Reflection:

- Reflect on the impact of providing beauty services to seniors. How does it contribute to their overall well-being and confidence?
- Reflect on your experience in providing beauty services to seniors. What aspects of your technique do you feel most confident in, and what areas would you like to improve?
- How has this experience influenced your understanding of aesthetics and its impact on seniors' well-being?

Guide for Long-Term Care Home Residents

Hairstyling and Aesthetics - Providing Self- Care Services

Guide for Long-Term Care Home Residents:

1. **Consultation and Preferences:**
 - Participate in consultations with students to discuss your beauty preferences and needs.
 - Share insights into your hair and skincare routines, as well as any concerns or preferences.
2. **Enjoying Beauty Services:**
 - Receive personalized hairstyling and skincare services from students.
 - Relax and enjoy the pampering experience provided in a safe and supportive environment.
3. **Feedback and Reflection:**
 - Provide feedback on the beauty services received, including satisfaction and suggestions for improvement.
 - Reflect on the impact of these services on your well-being and self-confidence.
4. **Celebration of Beauty and Wellness:**
 - Celebrate the creativity and skill of students in providing beauty services to seniors.
 - Appreciate the positive effects of these services on your overall health and happiness.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Playing Card Debrief](#) for mid-way check-ins
- [I Used to Think...Now I Think...](#) as a final individual or whole-group reflection and debrief

Reflection - Assessment AS Learning

Hairstyling and Aesthetics - Providing Self- Care Services

Reflection Worksheet

Name: _____

Date: _____

1. Describe the personal beauty services you provided to the seniors. What were the main goals?

2. What challenges did you face in providing beauty services to seniors?

3. How did you ensure that the services were comfortable and suitable for the seniors?

4. What skills or insights did you gain from providing beauty services?

5. Reflect on how the beauty services affected the seniors' self-esteem and well-being.

6. How did this experience influence your understanding of the role of personal grooming in senior care?

7. What aspects of the beauty services were successful, and what improvements would you suggest?

8. Overall, how satisfied are you with the services you provided? Why?

Ideas for Next Steps

- **Gather testimonials and reflections from residents about how they feel before and after students have provided hairstyling and/or beauty services**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on a *Hospitality & Tourism* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. manicure techniques, styling and cutting techniques, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on hairstyling and aesthetics, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Green Industries. One example of this could be a local College that offers a Hairstylist program to learn more about post-secondary apprenticeship expectations and opportunities.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Hairstyling and Aesthetics* BBT, such as:
 - Hairstylist
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 3: Good Health and Well-Being](#) fits well.
- **[TXJ3E: All About Me](#)** (from octe.ca) - Students are introduced to properties of the hair and scalp, how to determine eye shape, facial shapes and underlying skin tones. These activities would be also appropriate for TXJ1O, TIJ1O, TXJ2O or TXJ3E.
- **[TXJ20: Global Updo](#)** (from octe.ca) - This course presents hairstyling, make-up, and nail care techniques from a salon/spa perspective. Using materials, processes, and techniques used in the industry, students learn fundamental skills in hairstyling, giving manicures and facials, and providing hair/scalp analyses and treatments. Students will also consider related environmental and societal issues, and will explore secondary and postsecondary pathways leading to careers in the field of hairstyling and aesthetics.
- **[STEM TakeTech Challenge Kit - Hairstyling and Aesthetics](#)** (Gr. 7 & 8)

Sample Rubric

Hairstyling and Aesthetics - Providing Self- Care Services

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Preparation and Setup	Preparation is thorough and setup is highly professional.	Preparation is good and setup is professional.	Preparation is basic and setup is adequate.	Preparation is poor and setup is unprofessional.
Service Skills	Demonstrates excellent hairstyling and aesthetics skills.	Demonstrates good hairstyling and aesthetics skills.	Demonstrates basic hairstyling and aesthetics skills.	Demonstrates poor hairstyling and aesthetics skills.
Interaction with Seniors	Interacts with seniors in a highly respectful and engaging manner.	Interacts with seniors respectfully and engages well.	Interacts with seniors respectfully but with limited engagement.	Interaction with seniors lacks respect and engagement.
Compassion and Patience	Shows deep compassion and patience in providing services.	Shows good compassion and patience in providing services.	Shows some compassion and patience in providing services.	Lacks compassion and patience in providing services.

Empathy and Understanding	Shows deep empathy and understanding of seniors' personal care needs.	Shows good empathy and understanding of seniors' personal care needs.	Shows some empathy and understanding of seniors' personal care needs.	Lacks empathy and understanding of seniors' personal care needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Hairstyling and Aesthetics - Providing Self- Care Services</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Needs Assessment <ul style="list-style-type: none"> <input type="checkbox"/> Students conduct thorough assessments of seniors' beauty and grooming needs. <input type="checkbox"/> Assessments show a deep understanding of personal preferences and any specific concerns. ● Service Planning <ul style="list-style-type: none"> <input type="checkbox"/> Beauty services are well-planned, considering seniors' comfort and safety. <input type="checkbox"/> Students develop a clear and appropriate plan for each service. ● Technical Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students demonstrate proficiency in hairstyling techniques. <input type="checkbox"/> Students demonstrate proficiency in skincare and makeup application. <input type="checkbox"/> Attention to detail is evident in the execution of beauty services. ● Hygiene and Safety <ul style="list-style-type: none"> <input type="checkbox"/> Students adhere to high standards of hygiene and safety. <input type="checkbox"/> Proper sanitation practices are followed before, during, and after services. <input type="checkbox"/> Students ensure the comfort and safety of seniors throughout the service. ● Interpersonal Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students interact with seniors in a respectful and friendly manner. <input type="checkbox"/> Students show patience and attentiveness to seniors' needs and preferences. <input type="checkbox"/> Communication is clear and supportive, ensuring seniors feel comfortable.
--

- **Customization and Personalization**

- Beauty services are tailored to meet the individual needs and preferences of each senior.
- Students demonstrate creativity in personalizing services while maintaining professionalism.

- **Empathy and Understanding**

- Students show deep empathy towards seniors' beauty and grooming concerns.
- Services reflect a genuine understanding of how beauty and grooming impact seniors' well-being.

- **Reflection Quality**

- Students provide insightful reflections on their experience.
- Reflections highlight the impact of personal beauty services on seniors' self-esteem and happiness.
- Students discuss how the experience influenced their understanding of the importance of grooming and aesthetics for seniors.

- **Professionalism**

- Students maintain a high level of professionalism throughout the service.
- Students demonstrate reliability and punctuality.
- Appropriate attire and demeanor are maintained during interactions with seniors.

Teacher Comment Bank

Hairstyling and Aesthetics - Providing Self- Care Services

- **Strengths:**

- You demonstrated excellent hairstyling and beauty techniques, ensuring seniors' satisfaction and well-being.
- Your professionalism was evident in maintaining hygiene standards and respecting seniors' preferences and privacy.
- Seniors appreciated your efforts and felt more confident and cared for after the beauty sessions.

- **Areas for Improvement:**

- Consider exploring additional hairstyling techniques or trends to offer a wider range of services to seniors.
- Continue to refine your customer service skills to anticipate and meet seniors' individual preferences and needs.
- Reflect on feedback from seniors to improve service delivery and enhance their overall experience in future sessions.

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Health Care: *Understanding Geriatric Care*

Empathy Development

Participating in geriatric care activities, such as assisting with daily routines or recreational programs, exposes students to the complexities of caregiving. Students will develop empathy by understanding the physical and emotional needs of seniors. This experience teaches compassion and the importance of providing dignified care to the elderly.

Course Codes

TPJ 3M/3C TPJ 4M/4C TPJ 4C/4E TOJ 4C

Grade 7 & 8	Health - A1. Social-Emotional Learning, B1.3 Active Participation, D3.1 Healthy Eating
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Possible Community Partners

- ❖ Fitness Centers (e.g. YMCA)
- ❖ Athletic Organizations (Pickleball, etc)
- ❖ Athletic Therapists, Specialized Personal Trainers, etc.
- ❖ Municipalities that offer Senior Recreational Programming
- ❖ Sport for Life (<https://sportforlife.ca/>)

Sample Lesson Plan

Health Care: Understanding Geriatric Care

Lesson Plan: Understanding Geriatric Care

Objective: Students will learn about geriatric care and assist in non-clinical tasks at the care home. This will provide students with opportunities to assist healthcare professionals in non-clinical tasks. This will foster empathy by understanding the physical and emotional needs of seniors.

This is an opportunity to educate students about geriatric care, wellness programs, and health promotion activities tailored for seniors. Students will learn the importance of compassionate caregiving.

Materials: Guest speakers, health care articles, reflection journals. Caregiving supplies (gloves, aprons, etc.). Health monitoring tools (blood pressure monitors, thermometers).

Activities:

- **Introduction (1 class):**
 - Discuss the basics of geriatric care and common health issues in the elderly.
 - Introduce the importance of compassionate caregiving.
- **Guest Speaker (1 class):**
 - Invite a healthcare professional to speak about their work with seniors.
- **Shadowing Sessions (3-4 classes):**
 - Students shadow care home staff to observe and assist with daily routines.
- **Training Session (1 class):**
 - Students will participate in hands-on training on basic caregiving tasks (e.g., assisting with mobility, monitoring health).
- **Caregiving Activities (2 classes):**
 - Students will be paired with seniors for supervised caregiving tasks.
 - Students will be guided in providing assistance with daily activities.
- **Health Monitoring (2 classes):**
 - Teach students how to monitor vital signs and other health indicators.
 - Have students practice these skills on their peers and with seniors.
- **Reflection and Discussion (1-2 classes):**
 - Reflect on experiences and discuss the importance of compassionate care.

Assessment:

- Evaluate students' ability to perform caregiving tasks safely and compassionately.
- Assess reflections on students' understanding and empathy.

Empathy Development:

- Participating in caregiving activities helps students understand the physical and emotional needs of seniors, fostering compassion and patience.

Worksheet

Health Care: Understanding Geriatric Care

1. **Geriatric Care Principles:**
 - Define geriatric care and its importance in supporting senior health and well-being.
 - List three common health challenges faced by seniors and potential caregiving strategies.
2. **Assisting Seniors:**
 - List three daily tasks you observed care home staff performing during your shadowing sessions:
 - i. Task 1: _____

ii. Task 2: _____

iii. Task 3: _____

- Describe one task you assisted a senior with during your experience in the care home. What did you learn from the experience?
- How did you ensure the senior's comfort and dignity during your interaction?

3. Learning from Professionals:

- Interview a healthcare professional about their role in geriatric care. What insights did you gain from this conversation?
- How can you apply what you've learned from professionals to improve your caregiving skills?

4. Reflection:

- Reflect on the qualities and skills that are important for providing quality care to seniors. How will these experiences influence your future career choices?
- Reflect on your experience in understanding geriatric care. What surprised you the most about working with seniors?
- How has this experience influenced your career aspirations or personal goals?

Guide for Long-Term Care Home Residents

Health Care: Understanding Geriatric Care

Guide for Long-Term Care Home Residents:

1. Learning Sessions:

- Participate in educational sessions about geriatric care principles and practices.
- Ask questions and share your experiences related to senior health and well-being.

2. Interaction with Students:

- Engage in activities where students assist with daily tasks and activities.
- Provide feedback on the quality of care and interactions with students.

3. Reflection and Feedback:

- Reflect on your experiences and interactions with students and healthcare professionals.
- Offer constructive feedback to enhance learning opportunities for future participants.

4. Appreciation of Care:

- Appreciate the efforts of students and healthcare professionals in providing care and support.
- Share your gratitude and insights with the educational community.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Exit Tickets](#) throughout the project
- [Plus/Delta](#) for mid-way check-ins
- [Benefits to Society](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Health Care: Understanding Geriatric Care

Name: _____

Date: _____

1. What non-clinical tasks did you assist with at the care home? Describe what skills or knowledge did you gain from assisting in these tasks?

2. Describe your interactions with the seniors while performing these tasks.

3. What did you learn about the daily lives of the seniors from this experience?

4. How did you ensure the tasks you performed were helpful and respectful to the seniors?

5. Reflect on any challenges you faced while performing these tasks and how you managed them.

6. How did this experience help you develop empathy and understanding for the elderly?

7. Describe a memorable moment you had with a senior during this lesson.

8. How has this experience influenced your perspective on working in geriatric care?

Ideas for Next Steps

- **Consider the “Sport for Life” model which encourages physical literacy and being active throughout the entire lifespan, especially in the adult and older years:** https://sportforlife.ca/wp-content/uploads/2019/09/DPL-2_2021.pdf#page=54
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on a *Health and Wellness* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. anatomy and physiology for PSWs, intro to sport and recreation management, introduction to emergency services: paramedicine, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on

health and wellness, or in a pathway/field they are considering pursuing post-secondary

- **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Health & Wellness. One example of this could be to a local recreation centre to learn about programming options and ideas for individuals of a variety of ages.
- **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
- **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Health Care* BBT, such as:
 - Developmental Services Worker
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 3: Good Health and Well-Being](#) fits well.
- **[TPJ20: Lifestyle and Recreation](#)** (from octe.ca) - Students will examine the multitude of factors that affect personal health, including nutrition, exercise, sleep and life balance. They will examine their personal habits and propose ways to improve their lifestyle. This knowledge will become the foundation for development of a recreational schedule that incorporates these requirements.
- **[STEM TakeTech Challenge Kit - Health Care](#)** (Gr. 7 & 8)

Sample Rubric

Health Care: Understanding Geriatric Care

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Caregiving Skills	Demonstrates exceptional caregiving skills and compassion.	Demonstrates good caregiving skills and compassion.	Demonstrates basic caregiving skills with some compassion.	Demonstrates poor caregiving skills and lacks compassion.

Health Monitoring	Performs health monitoring tasks accurately and confidently.	Performs health monitoring tasks with minor errors.	Performs health monitoring tasks with some errors.	Performs health monitoring tasks with many errors.
Interaction with Seniors	Interacts with seniors in a highly respectful and engaging manner.	Interacts with seniors respectfully and engages well.	Interacts with seniors respectfully but with limited engagement.	Interaction with seniors lacks respect and engagement.
Compassion and Patience	Shows deep compassion and patience in caregiving activities.	Shows good compassion and patience in caregiving activities.	Shows some compassion and patience in caregiving activities.	Lacks compassion and patience in caregiving activities.
Empathy and Understanding	Shows deep empathy and understanding of seniors' physical and emotional needs.	Shows good empathy and understanding of seniors' physical and emotional needs.	Shows some empathy and understanding of seniors' physical and emotional needs.	Lacks empathy and understanding of seniors' physical and emotional needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

Teacher Observation Checklist
Health Care: Understanding Geriatric Care

Teacher Observation Checklist

- **Needs Assessment**
 - Students conduct thorough assessments of seniors' health and wellness needs.
 - Assessments show a deep understanding of common geriatric health issues.
 - Students engage with seniors to gather relevant health histories and preferences.
- **Health Care Knowledge**
 - Students demonstrate a thorough understanding of geriatric care principles.
 - Students apply their knowledge effectively during interactions with seniors.
 - Medical and wellness terminology is used correctly and appropriately.
- **Interpersonal Skills**
 - Students interact with seniors respectfully and empathetically.
 - Communication is clear, supportive, and adapted to seniors' needs.
 - Students exhibit patience and attentiveness.
- **Empathy and Understanding**
 - Students show deep empathy towards seniors' health challenges.
 - Programs reflect a genuine understanding of seniors' physical and emotional well-being.
 - Students actively listen to and address seniors' concerns and feedback.
- **Safety and Compliance**
 - Students adhere strictly to health and safety guidelines.
 - Programs ensure the safety and comfort of all participants.
 - Students are aware of and comply with relevant health care regulations.
- **Reflection Quality**
 - Students provide insightful reflections on their experience.
 - Reflections highlight the importance of understanding geriatric care.
 - Students discuss how the experience influenced their approach to health care for seniors.

Teacher Comment Bank

Health Care: Understanding Geriatric Care

- **Strengths:**
 - You demonstrated a thorough understanding of geriatric care principles and challenges.

- Your assistance to care home staff was valuable, showing empathy and respect towards seniors.
- Reflections on your experiences highlighted insights into the importance of compassionate care.
- **Areas for Improvement:**
 - Consider expanding your knowledge of specialized care techniques for specific senior health conditions.
 - Continue to observe and learn from experienced healthcare professionals to refine your caregiving skills.
 - Reflect on challenges encountered and identify strategies for continuous improvement in caregiving practices.

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Hospitality and Tourism: Organizing Events for Seniors

Empathy Development

Organizing and participating in social events for seniors helps students appreciate the importance of social interaction and community building. They will learn to consider seniors' preferences and needs when planning activities, fostering empathy through the creation of inclusive and enjoyable experiences that combat loneliness and isolation.

Course Codes

TFJ 3C/3E TFJ 4C/4E

Grade 7 & 8	Science - B2.8 (Gr. 7), D1.2 (Gr. 8)
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Possible Community Partners

- ❖ Locally Owned Restaurants
- ❖ Local Food Trucks
- ❖ Catering Companies
- ❖ School Cafeteria

Sample Lesson Plan

Hospitality and Tourism - Organizing Events for Seniors

Lesson Plan: Organizing Events for Seniors

Objective: Students will plan and organize recreational events for seniors in the care home while applying principles of hospitality management. This will foster empathy by considering the social and emotional needs of seniors.

Students can develop and manage a mini café or tea shop within the care home, involving seniors in the process.

Materials: Event planning templates, budget sheets, decorations.

Activities:

- **Introduction (1 class):**
 - Discuss the importance of social events for community building and mental health.
 - Explain the principles of event planning and hospitality.
- **Planning Phase (2-3 classes):**
 - Collaborate with seniors to plan a social event, considering their interests and preferences.
 - Assign roles and tasks to all the students involved.
 - Plan the event, including activities, budget, and logistics. Guide students in preparing for the event (decorations, refreshments, setting up activities).
- **Implementation Phase (1-2 classes):**
 - Host the social event with students and seniors participating.
 - Set up and execute the event, ensuring everything runs smoothly.
 - Ensure students interact and engage with seniors throughout the event.
- **Evaluation and Reflection (1 class):**
 - Evaluate the event's success and gather feedback from seniors.
 - Conduct a reflection session on the event planning and execution experience.

Assessment:

- Evaluate the success of the event based on organization and participation.
- Assess reflections on students' understanding and empathy.

Empathy Development:

- Planning and hosting social events requires students to consider the preferences and needs of seniors, fostering empathy through community engagement.

Worksheet

Hospitality and Tourism - Organizing Events for Seniors

1. Event Planning:

- Outline the steps involved in planning a senior event. Include considerations for activities, budgeting, and logistics.
- Outline the schedule of activities for your event. Include details such as time, activity description, and location.
- Identify potential challenges that may arise during event planning and how you would address them.

2. Event Execution:

- Create a timeline for organizing and executing a senior event. List key responsibilities for each stage of the event.
- How will you ensure smooth coordination among team members and volunteers during the event?
- Create a budget for your event. List potential expenses and estimate costs for each item (e.g., decorations, refreshments).

3. Customer Service:

- Discuss the importance of customer service in hospitality. What skills are essential for providing exceptional service to seniors?
- Role-play a scenario where you address a senior's request or concern during an event. Describe your approach and resolution.
- Identify potential challenges or considerations you might encounter during the event. How would you address them?

4. Feedback and Reflection:

- After organizing the event, seek feedback from seniors and volunteers. What did they enjoy most about the event, and what could be improved?
- Reflect on your experience in organizing the senior event. What lessons did you learn about hospitality and event management?

Guide for Long-Term Care Home Residents

Hospitality and Tourism - Organizing Events for Seniors

Guide for Long-Term Care Home Residents:

1. **Event Participation:**
 - Attend social events organized specifically for seniors by students.
 - Enjoy entertainment, activities, and refreshments provided during the events.
2. **Feedback and Interaction:**
 - Provide feedback on event planning, organization, and execution.
 - Interact with students to share your enjoyment and suggestions for future events.
3. **Community Engagement:**
 - Engage with students and community members during events.
 - Foster relationships and connections with others attending the events.
4. **Continued Participation:**
 - Continue attending future events organized by students and the educational community.
 - Share your experiences and encourage other seniors to participate.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Reflection BINGO](#) throughout the project
- [Plus/Delta](#) for mid-way check-ins
- [I Used to Think...Now I Think...](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Hospitality and Tourism - Organizing Events for Seniors

Reflection Worksheet

Name: _____

Date: _____

1. What type of event did you plan for the seniors? What were its main features?

2. What were the primary challenges in organizing the event?

3. How did you ensure the event met the needs and preferences of the seniors?

4. What skills or insights did you gain from this event planning experience?

5. Reflect on the impact of the event on the seniors. How did it contribute to their well-being and enjoyment?

6. How did this project help you understand the role of event planning in enhancing seniors' quality of life?

7. What aspects of the event were successful, and what areas could be improved?

8. How did this experience change your perspective on hospitality and tourism in relation to seniors?

Ideas for Next Steps

- **Create Menus for the event on Canva (or on a similar application).**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on either a *Food Processing* or *Hospitality and Tourism* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. cuisine and culture, baking and pastry arts, basic food preparation, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on hospitality and tourism, associated trades, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Manufacturing. One example of this could be to a local restaurant or catering company to learn about what food preparation in a professional setting looks like.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Hospitality and Tourism* BBT, such as:
 - Baker - Patisserie
 - Chef
 - Cook or Institutional Cook
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 2: Zero Hunger](#) fits well.
- **[TFJ3C/4C: Raising Dough for Charities](#)** (from octe.ca) - Students will demonstrate an understanding of factors that affect the relationship between the tourism industry and society and of the importance of customer service. Students will design effective marketing initiatives to promote an event or activity and demonstrate learning skills that include communication, teamwork, responsibility, organization and initiative. In the "Community of Character", appreciation and empathy will be emphasized in support of the interconnection between social responsibility within the service sector, and how these skills apply to their career pathway.
- **[STEM TakeTech Challenge Kit - Hospitality and Tourism](#)** (Gr. 7 & 8)

Sample Rubric

Hospitality and Tourism - Organizing Events for Seniors

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Event Planning	Event is exceptionally well-planned and organized.	Event is well-planned and organized.	Event is somewhat planned but lacks organization.	Event is poorly planned and disorganized.
Collaboration	Collaborates with seniors exceptionally well and values their input.	Collaborates with seniors well and considers their input.	Collaborates with seniors but may not fully consider their input.	Poor collaboration with seniors and disregards their input.
Execution	Executes the event flawlessly and engages all participants.	Executes the event well with minor issues.	Executes the event with some issues.	Poor execution of the event with many issues.
Creativity and Engagement	Event is highly creative and engaging.	Event is creative and engaging.	Event is somewhat creative and engaging.	Event lacks creativity and engagement.

Empathy and Understanding	Shows deep empathy and understanding of seniors' social needs.	Shows good empathy and understanding of seniors' social needs.	Shows some empathy and understanding of seniors' social needs.	Lacks empathy and understanding of seniors' social needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Hospitality and Tourism - Organizing Events for Seniors</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Needs Assessment <ul style="list-style-type: none"> <input type="checkbox"/> Students conduct thorough assessments of seniors' preferences. <input type="checkbox"/> Assessments show a deep understanding of what seniors enjoy. ● Event Planning <ul style="list-style-type: none"> <input type="checkbox"/> Events are well-planned with detailed attention to logistics. <input type="checkbox"/> Activities and entertainment are well-organized. ● Execution <ul style="list-style-type: none"> <input type="checkbox"/> Events are executed smoothly. <input type="checkbox"/> Seniors enjoy and engage in the event. ● Creativity <ul style="list-style-type: none"> <input type="checkbox"/> Events demonstrate a high level of creativity. <input type="checkbox"/> Events are unique and engaging. ● Empathy and Understanding <ul style="list-style-type: none"> <input type="checkbox"/> Students show empathy towards seniors' interests. <input type="checkbox"/> Events reflect the seniors' desires and needs. ● Reflection Quality <ul style="list-style-type: none"> <input type="checkbox"/> Students provide insightful reflections on their experience. <input type="checkbox"/> Reflections highlight the importance of thoughtful event planning.
--

Teacher Comment Bank

Hospitality and Tourism - Organizing Events for Seniors

- **Strengths:**
 - Your event planning was thorough, considering activities, budget, and logistics effectively.
 - Seniors actively participated in the event and enjoyed the activities you organized.
 - You demonstrated good customer service skills, ensuring seniors' needs were met with care and professionalism.
- **Areas for Improvement:**
 - Consider diversifying event activities to cater to different interests and preferences among seniors.
 - Continue to refine your budgeting skills to optimize resource allocation for future events.
 - Reflect on feedback from seniors to improve event planning and execution in upcoming activities.

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Manufacturing Technology: *Creating Assistive Devices*

Empathy Development

Designing assistive devices requires students to consider the specific challenges faced by seniors. Through this process, students gain insight into the difficulties of limited mobility or dexterity. This hands-on activity encourages innovative thinking while fostering empathy by focusing on enhancing seniors' independence and quality of life.

Course Codes

TMJ 3M/3C/3E TMJ 4M/4C/4E

Grade 7 & 8	Science - A1. STEM Investigation and Communication Skills D2. Exploring & Understanding Structures and Mechanisms
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Partners

- ❖ Local Manufacturing Companies
- ❖ Local Welding Companies
- ❖ Secondary Manufacturing Classes

Sample Lesson Plan

Manufacturing Technology - Creating Assistive Devices

Lesson Plan: Creating Assistive Devices

Objective: Students will design and manufacture assistive devices to help seniors with daily tasks and activities using 3D printing or other manufacturing techniques. This will foster empathy by creating devices to aid seniors in their daily lives. Students can learn about product design and development focused on the needs of the elderly.

Materials: Prototyping materials (3D printer, plastic, metal, etc.), Design / CAD software, manufacturing tools and safety equipment

Activities:

- **Introduction (1 class):**
 - Discuss the needs of seniors and the role of assistive device technology for seniors' independence.
 - Introduce basic principles of design and manufacturing.
- **Research Phase (2 classes):**
 - Students will interview seniors to identify areas where assistive devices could improve their quality of life.
 - Research existing assistive devices and their limitations.
- **Design Phase (2-3 classes):**
 - Students use CAD software to design their assistive devices.
 - Students will brainstorm and sketch ideas for assistive devices.
 - Teacher will review designs for feasibility and effectiveness.
- **Prototyping Phase (3 classes):**
 - Students will develop and create prototypes of their designs.
 - Students will use 3D printers and other tools to create prototypes.
- **Testing and Feedback (1-2 classes):**
 - Test devices with seniors and gather feedback for improvements.

Assessment:

- **Prototype Evaluation:** Evaluate the functionality and innovation of the assistive devices.
- **Reflection Assessment:** Assess reflections on students' understanding and empathy.

Empathy Development:

- Designing and testing assistive devices requires students to deeply understand the daily challenges faced by seniors, fostering empathy and problem-solving skills.

Worksheet

Manufacturing Technology - Creating Assistive Devices

1. Design Planning:

- Sketch your initial design ideas for an assistive device. Label key features and include annotations and measurements to illustrate its functionality.
- Explain how your device will assist seniors with a specific daily task. What are the key features and benefits?
- List three specific needs or challenges faced by seniors that your device aims to address.

2. Prototyping and Testing:

- List the materials and tools needed to manufacture your device. How would you test its usability and effectiveness?
- Outline the steps involved in prototyping your assistive device. What materials and tools will you need?
- Conduct a simple test of your prototype. What were the results, and how could you improve the design?

3. Collaboration and Communication:

- Describe your role within the project team. How will you contribute to the design and development of the assistive device?
- How will you communicate effectively with team members to ensure progress and collaboration?

4. Reflection:

- Reflect on the process of creating an assistive device. What challenges did you encounter, and how did you overcome them?
- How do you envision your device making a positive impact on seniors' lives? What improvements would you make in future iterations?

Guide for Long-Term Care Home Residents

Manufacturing Technology - Creating Assistive Devices

Guide for Long-Term Care Home Residents:

1. **Introduction to Assistive Devices:**
 - Learn about the purpose and benefits of assistive devices for seniors.
 - Understand how these devices can enhance daily living and independence.
2. **Feedback and Input:**
 - Provide insights into your daily challenges and needs that could be addressed with assistive devices.
 - Collaborate with students to brainstorm ideas and features for device prototypes.
3. **Observation and Testing:**
 - Observe the design and prototyping process of assistive devices by students.
 - Offer feedback on usability, comfort, and effectiveness during testing phases.
4. **Using Assistive Devices:**
 - Test and provide feedback on prototypes to improve their design and functionality.
 - Experience firsthand how these devices can improve your quality of life.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Plus/Delta](#) for mid-way check-ins
- [Benefits to Society](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Manufacturing Technology - Creating Assistive Devices

Reflection Worksheet

Name: _____

Date: _____

1. What assistive device did you create? Describe its purpose and key features.

2. What challenges did you face in designing and manufacturing the device?

3. How did you ensure the device was functional and met the needs of seniors?

4. What skills did you develop through this project?

5. Reflect on the impact of the assistive device on the seniors. How did it improve their daily lives?

6. How did this project influence your understanding of assistive technology and its importance?

7. If you were to redesign the device, what changes would you make?

8. Overall, how do you feel about the final outcome of your assistive device? Why?

Ideas for Next Steps

- **Share the designs on a public forum so others can benefit from their use**
- **If the project fits, consider accessing Entrepreneurial Funding from the school board to see if this idea/concept can be expanded into a start-up business.**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on a *Manufacturing* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. basic welding and fabricating, powerline awareness and safety, intro to HVAC, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on manufacturing, associated trades, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Manufacturing. One example of this may be a local College or Welding Business to see what is involved in a career in welding.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Manufacturing* BBT, such as:
 - Metal Fabricator (Fitter)
 - Tool and Die Maker
 - Welder
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 10: Reduced Inequalities](#) fits well.
- **[TMJ 3C/4C: Fire Piston Project](#)** (from octe.ca) - This project is designed as a grade 11 beginner project. The purpose of this practical assignment is to teach metal lathe basics such as end facing, parallel turning, drilling, threading, turning grooves, and turning angles on a manual metal lathe.
- **[TMJ3C/4C: Plug Weld](#)** (from octe.ca) - Students will develop knowledge and skills related to product design, fabrication, blueprint reading, and weld quality. Students will learn the fundamentals and process applications related to plug welding using the GMAW process and apply it manually.
- **[TMJ3M/4M: Injection Mould Manufacturing](#)** (from octe.ca) - This project will look at the automotive industries use of injection moulding to manufacture parts, with a focus on the electric vehicle manufacturing sector.
- **[STEM TakeTech Challenge Kit - Manufacturing](#)** (Gr. 7 & 8)

Sample Rubric

Manufacturing Technology - Creating Assistive Devices

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Needs Assessment	Thorough and insightful assessment of seniors' needs.	Good assessment of seniors' needs.	Basic assessment of seniors' needs.	Incomplete or inaccurate assessment of seniors' needs.
Design Quality	Designs are highly innovative, functional, and feasible.	Designs are functional and feasible.	Designs are somewhat functional but may lack feasibility.	Designs are poorly thought out and unfeasible.
Prototyping Skills	Demonstrates excellent prototyping skills and attention to detail.	Demonstrates good prototyping skills and attention to detail.	Demonstrates basic prototyping skills with some errors.	Demonstrates poor prototyping skills with many errors.
Testing and Feedback	Tests prototypes thoroughly and incorporates feedback effectively.	Tests prototypes and incorporates feedback.	Tests prototypes with some feedback incorporation.	Poor testing of prototypes and little feedback incorporation.

Empathy and Understanding	Shows deep empathy and understanding of seniors' needs.	Shows good empathy and understanding of seniors' needs.	Shows some empathy and understanding of seniors' needs.	Lacks empathy and understanding of seniors' needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

<p>Teacher Observation Checklist</p> <p>Manufacturing Technology - Creating Assistive Devices</p> <p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Needs Assessment <ul style="list-style-type: none"> <input type="checkbox"/> Students conduct thorough assessments of seniors' needs. <input type="checkbox"/> Assessments show a deep understanding of their challenges. ● Design Quality <ul style="list-style-type: none"> <input type="checkbox"/> Assistive device designs are innovative and functional. <input type="checkbox"/> Designs demonstrate a strong understanding of assistive technology. ● Prototyping Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students demonstrate excellent prototyping skills. <input type="checkbox"/> Attention to detail is evident in the prototypes. ● Testing and Feedback <ul style="list-style-type: none"> <input type="checkbox"/> Prototypes are thoroughly tested. <input type="checkbox"/> Feedback is incorporated effectively, leading to improvements. ● Empathy and Understanding <ul style="list-style-type: none"> <input type="checkbox"/> Students show empathy towards seniors' challenges. <input type="checkbox"/> Assistive devices are highly functional and meet seniors' needs. ● Reflection Quality <ul style="list-style-type: none"> <input type="checkbox"/> Students provide insightful reflections on their experience. <input type="checkbox"/> Reflections highlight the impact of assistive technology.
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Teacher Comment Bank

Manufacturing Technology - Creating Assistive Devices

- **Strengths:**
 - Your designs were innovative and effectively met seniors' needs for improved functionality.
 - Prototypes were well-crafted, demonstrating attention to detail and usability.
 - You collaborated effectively with team members to refine designs based on feedback and testing.
- **Areas for Improvement:**
 - Consider exploring additional assistive technologies or features to further enhance device functionality.
 - Continue to refine your prototyping skills to optimize manufacturing processes and materials usage.
 - Reflect on challenges encountered during the design and manufacturing phases to identify lessons learned for future projects.

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Technological Design: *Designing Senior-Friendly Products*

Empathy Development

Creating products that cater to seniors' unique needs involves understanding their daily struggles and preferences. Students will learn to prioritize usability and comfort in their designs, developing empathy by considering how their innovations can positively impact seniors' lives. This activity reinforces the importance of user-centered design.

Course Codes

TMJ 3M/3C/3E TMJ 4M/4C/4E

Grade 7 & 8	Science - A1. STEM Investigation and Communication Skills Math - E2. Measurement
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Partners

- ❖ Local Engineering Firms
- ❖ Secondary School Tech Design Classes
- ❖ Local College Tech Design Classes

Sample Lesson Plan

Technological Design - Designing Senior-Friendly Products

Lesson Plan: Designing Senior-Friendly Products

Objective: Students will design and prototype innovative solutions to improve the quality of life for seniors, such as ergonomic furniture or smart home devices. Students will learn the principles of user-centered design. This will foster empathy by creating products tailored to seniors' needs. Students can collaborate on projects that involve redesigning spaces to be more senior-friendly.

Materials: Design software, prototyping materials, presentation tools, feedback forms.

Activities:

- **Introduction (1 class):**
 - Discuss user-centered design and the specific needs of seniors.
 - Introduce the process of designing products with specific user needs in mind.
- **Research Phase (1-2 classes):**
 - Conduct research and interview seniors to understand their preferences, needs and identify potential product ideas.
 - Students will research existing products and identify their shortcomings.
- **Design Phase (1-2 classes):**
 - Students will brainstorm and sketch ideas for new senior-friendly products.
 - Teacher will review designs for usability and effectiveness.
- **Prototyping Phase (1-2 classes):**
 - Students will create detailed designs and prototypes.
 - Students will test prototypes with seniors and gather feedback for improvements.
- **Presentation and Feedback (1-2 classes):**
 - Students will present their final designs and prototypes.
 - Students will conduct a reflection session on the design process and empathy development.

Assessment:

- **Product Evaluation:** Evaluate the usability and innovation of the products. 13.
- **Reflection Assessment:** Assess reflections on students' understanding and empathy.

Empathy Development:

- Creating senior-friendly products requires students to consider the specific needs and preferences of seniors, fostering empathy through user-centered design.

Worksheet

Technological Design - Designing Senior-Friendly Products

1. **Product Design Concept:**

- Describe the problem your product solves for seniors. What inspired your design idea?
- Brainstorm ideas for a senior-friendly product. What features or functionalities would make it easy and enjoyable for seniors to use?
- Sketch a rough design of your product, including labels for key features and user interface elements.

2. **User-Centered Design:**

- List three considerations you would take into account when designing a product for seniors' needs and preferences.
- How will you gather feedback from seniors to ensure your design meets their expectations and usability requirements?

3. **Prototyping and Testing:**

- Describe the process of prototyping your product. What materials and tools will you use?
- Sketch your product design from different angles. Include labels to explain its key features and functionalities.
- Conduct a usability test with seniors. What feedback did you receive, and how will you incorporate it into your design?

4. **Ethical Considerations:**

- Discuss ethical considerations when designing products for seniors. How will you ensure safety, dignity, and user autonomy in your design?
- How do you see your product enhancing seniors' quality of life and independence? What future improvements would you explore?

Guide for Long-Term Care Home Residents

Technological Design - Designing Senior-Friendly Products

1. Understanding Product Design:

- Participate in discussions about the importance of user-centered design for seniors.
- Learn about the process of creating products that prioritize ease of use and accessibility.

2. Providing Feedback:

- Share your experiences and preferences related to everyday products used by seniors.
- Offer feedback on product concepts and prototypes developed by students.

3. Usability Testing:

- Participate in usability testing sessions to evaluate the functionality and comfort of prototypes.
- Provide constructive feedback to help refine and improve product designs.

4. Celebration of Innovation:

- Celebrate the development and potential impact of senior-friendly products created by students.
- Reflect on how these products can enhance independence and well-being for seniors.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Exit Tickets](#) for mid-way check-ins
- [Benefits to Society](#) as a final whole-group reflection and debrief

Reflection - Assessment AS Learning

Technological Design - Designing Senior-Friendly Products

Reflection Worksheet

Name: _____

Date: _____

1. Describe the senior-friendly product you designed. What were its main features?

2. What were the main challenges in designing a product that caters to seniors?

3. How did you incorporate feedback from seniors into your design?

4. What new skills or knowledge did you gain through this project?

5. Reflect on how the product addresses the needs and preferences of seniors.

6. How did this project enhance your understanding of designing for accessibility?

7. What aspects of the product design were successful, and what could be improved?

8. Overall, how satisfied are you with the final product? Why?

Ideas for Next Steps

- **Share the designs on a public forum so others can benefit from their use**
- **Partner with a manufacturing or construction class to bring the idea to life**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on either a *Manufacturing or Information and Communications Technology* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. basic welding and fabricating, powerline awareness and safety, intro to HVAC, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on manufacturing, associated trades, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Manufacturing. One example of this may be a local engineering firm that creates designs for companies that use specific criteria.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Technological Design* BBT, such as:
 - Draftsperson - Mechanical
 - Draftsperson - Plastic Mould Design
 - Draftsperson - Tool and Die Design
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 10: Reduced Inequalities](#) fits well.
- **[TMJ 3C/4C: Fire Piston Project](#)** (from octe.ca) - This project is designed as a grade 11 beginner project. The purpose of this practical assignment is to teach metal lathe basics such as end facing, parallel turning, drilling, threading, turning grooves, and turning angles on a manual metal lathe.
- **[TMJ3C/4C: Plug Weld](#)** (from octe.ca) - Students will develop knowledge and skills related to product design, fabrication, blueprint reading, and weld quality. Students will learn the fundamentals and process applications related to plug welding using the GMAW process and apply it manually.
- **[TMJ3M/4M: Injection Mould Manufacturing](#)** (from octe.ca) - This project will look at the automotive industries use of injection moulding to manufacture parts, with a focus on the electric vehicle manufacturing sector.
- **[STEM TakeTech Challenge Kit - Technological Design](#)** (Gr. 7 & 8)

Sample Rubric

Technological Design - Designing Senior-Friendly Products

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Needs Assessment	Thorough and insightful assessment of seniors' needs.	Good assessment of seniors' needs.	Basic assessment of seniors' needs.	Incomplete or inaccurate assessment of seniors' needs.
Design Quality	Designs are highly innovative, functional, and user-friendly.	Designs are functional and user-friendly.	Designs are somewhat functional but may lack user-friendliness.	Designs are poorly thought out and not user-friendly.
Prototyping Skills	Demonstrates excellent prototyping skills and attention to detail.	Demonstrates good prototyping skills and attention to detail.	Demonstrates basic prototyping skills with some errors.	Demonstrates poor prototyping skills with many errors.
Testing and Feedback	Tests prototypes thoroughly and incorporates feedback effectively.	Tests prototypes and incorporates feedback.	Tests prototypes with some feedback incorporation.	Poor testing of prototypes and little feedback incorporation.

Empathy and Understanding	Shows deep empathy and understanding of seniors' needs.	Shows good empathy and understanding of seniors' needs.	Shows some empathy and understanding of seniors' needs.	Lacks empathy and understanding of seniors' needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

Teacher Observation Checklist
Technological Design - Designing Senior-Friendly Products
<p>Teacher Observation Checklist</p> <ul style="list-style-type: none"> ● Needs Assessment <ul style="list-style-type: none"> <input type="checkbox"/> Students conduct thorough assessments of seniors' needs and challenges related to product usability. <input type="checkbox"/> Assessments reflect an understanding of seniors' physical, cognitive, and ergonomic requirements. <input type="checkbox"/> Students engage with seniors to gather relevant feedback and insights. ● Design Process <ul style="list-style-type: none"> <input type="checkbox"/> Students follow a clear and organized design process. <input type="checkbox"/> Brainstorming sessions are productive and generate practical design ideas. <input type="checkbox"/> Design plans are detailed and address the identified needs effectively. ● Prototyping Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students create functional prototypes that accurately reflect the design concepts. <input type="checkbox"/> Prototypes demonstrate attention to detail and consideration of usability features. <input type="checkbox"/> Students use appropriate materials and techniques for constructing prototypes. ● Testing and Feedback <ul style="list-style-type: none"> <input type="checkbox"/> Prototypes are tested thoroughly to evaluate their effectiveness and usability. <input type="checkbox"/> Students collect and analyze feedback from seniors and incorporate it into design revisions. <input type="checkbox"/> Iterations of prototypes show clear improvements based on feedback.

- **Technical Skills**

- Students demonstrate proficiency in using design software and tools.
- Technical aspects of the product, such as functionality and durability, are well-executed.
- Students address any technical issues identified during testing.

- **Empathy and Understanding**

- Students show a deep understanding of seniors' challenges and needs.
- Designs are tailored to enhance comfort, safety, and ease of use for seniors.
- Students integrate feedback from seniors to improve product design.

- **Innovation and Creativity**

- Students demonstrate creativity in designing solutions that address seniors' needs.
- Designs reflect innovative approaches and unique solutions.
- Students think outside the box to improve the functionality and appeal of the products.

- **Collaboration**

- Students work effectively within their teams, showing good communication and coordination.
- Roles and responsibilities are clearly defined and adhered to.
- Teamwork enhances the quality and success of the design process.

- **Presentation Skills**

- Students present their designs clearly and professionally.
- Presentations include detailed explanations of the design process, challenges, and solutions.
- Visual aids and prototypes are used effectively to support the presentation.

- **Reflection Quality**

- Students provide thoughtful and insightful reflections on their design experience.
- Reflections highlight the impact of the design process on their understanding of senior needs.
- Students discuss how the experience influenced their approach to designing for accessibility and usability.

Teacher Comment Bank

- **Strengths:**
 - Your product designs effectively addressed seniors' needs and preferences with user-friendly features.
 - Prototypes demonstrated functionality and usability through testing and refinement.
 - You demonstrated a thorough understanding of user-centered design principles and applied them effectively.
- **Areas for Improvement:**
 - Consider conducting additional user testing with seniors to gather more comprehensive feedback for product improvement.
 - Continue to explore innovative design concepts that can further enhance usability and appeal among seniors.
 - Reflect on design challenges and identify strategies for overcoming them in future product development cycles.

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Transportation Technology: *Designing Accessible Transportation Solutions*

Empathy Development

By addressing the transportation challenges seniors face, students gain a better understanding of the barriers to mobility and independence. Designing accessible transportation solutions fosters empathy as students consider how improved mobility can enhance seniors' participation in community activities and overall quality of life.

Course Codes

TTJ 3C/3O TTJ 4C/4E

Grade 7 & 8	Science - A1. STEM Investigation and Communication Skills D1. Form, Function, and Design of Structures (Gr. 7) Geography - A1. Application: Interrelationships between Settlement and the Environment (Gr. 8)
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Partners

- ❖ Local Auto Dealerships (Aftermarket, Maintenance & Repair)
- ❖ Local Mechanic Shops
- ❖ Tool, Die & Mold Manufacturing
- ❖ Transportation Sectors of Municipalities
- ❖ Secondary School Transportation Classes
- ❖ Private Companies that Offer Transportation (e.g. Coach Bus Lines, Non-Emergency Medical Transportation, etc.)

Sample Lesson Plan

Transportation Technology - Designing Accessible Transportation Solutions

Lesson Plan: Designing Accessible Transportation Solutions

Objective: Students will explore solutions for accessible transportation for seniors, including designing modifications for vehicles. This will foster empathy by understanding the mobility challenges faced by seniors. Students can study and improve the logistics of transportation services for seniors' outings and appointments.

Materials: Design software, research articles, presentation tools.

Activities:

- **Introduction (1 class):**
 - Discuss the importance of accessible transportation for seniors.
 - Discuss transportation challenges faced by seniors and introduce design principles for accessibility.
 - Introduce the basics of transportation design and accessibility standards.
- **Research Phase (1-2 classes):**
 - Students will interview seniors to understand their mobility challenges.
 - Students will research existing transportation solutions and their limitations. This will inform their design of new concepts.
- **Design Phase (1-2 classes):**
 - Students will brainstorm and sketch ideas for new accessible transportation solutions.
 - Teacher will review designs for feasibility and effectiveness.
- **Prototype and Testing (3-4 classes):**
 - Students will create prototypes of their designs
 - Students will build and test small-scale models or simulations of their designs.
 - Students will test their prototypes with seniors and gather feedback for improvements.
- **Presentation and Reflection (1-2 classes):**
 - Students will present their final designs and prototypes.
 - Students will participate in a reflection session on the design process and empathy development.

Assessment:

- Evaluate the functionality and innovation of the transportation solutions.
- Assess reflections on students' understanding and empathy.

Empathy Development:

- Designing accessible transportation solutions requires students to understand the mobility challenges faced by seniors, fostering empathy through practical problem-solving.

Worksheet

Transportation Technology - Designing Accessible Transportation Solutions

Transportation Design Concept:

- Brainstorm ideas for an accessible transportation solution for seniors. What features would make it safe, comfortable, and easy to use?
- Sketch a preliminary design of your transportation solution, including labels for accessibility features and user interface elements. Include annotations to explain its accessibility features

2. Prototyping and Testing:

- Outline the steps involved in prototyping your transportation solution. What materials and technologies will you incorporate?
- Compare and contrast your design with existing transportation options for seniors. What makes your solution unique?
- Conduct a test drive or simulation with seniors. What feedback did you receive, and how will you iterate on your design?
- Explain how you would test and gather feedback on your prototype from seniors. What criteria would you use to evaluate its effectiveness?

3. Collaboration and Communication:

- Describe your role within the project team. How will you contribute to the design and development of the transportation solution?
- How will you communicate effectively with team members and stakeholders to ensure progress and alignment with project goals?

4. Community Impact:

- Discuss the potential impact of your transportation solution on seniors' mobility and quality of life. How will it benefit the community at large?
- Reflect on the challenges and successes of designing accessible transportation solutions. What lessons did you learn, and what improvements would you pursue?

Guide for Long-Term Care Home Residents

Transportation Technology - Designing Accessible Transportation Solutions

Guide for Long-Term Care Home Residents:

1. **Exploring Transportation Needs:**
 - Discuss challenges and barriers you face related to transportation as a senior.
 - Share insights into the types of accessible transportation solutions that would benefit seniors.
2. **Participation in Design:**
 - Contribute ideas and preferences for accessible vehicle designs and features.
 - Collaborate with students to ensure designs meet your mobility needs and preferences.
3. **Prototype Testing:**
 - Test prototype models of accessible transportation solutions.
 - Provide feedback on usability, comfort, and safety features during testing phases.
4. **Advocacy and Community Impact:**
 - Advocate for inclusive transportation options that address the needs of seniors.
 - Participate in discussions on the social and environmental benefits of accessible transportation.

Reflection - What, So What, Now What?

The [Reflection Choice Board](#) can be used at any time as an individual, small group, or whole class reflection strategy.

Additional routines that would work well for this project:

- [Journaling](#) throughout the project
- [Reflection BINGO](#) for a mid-way, and then a final check-in
- [Later Letter](#) as a final individual or whole-group reflection and debrief

Reflection - Assessment AS Learning

Transportation Technology - Designing Accessible Transportation Solutions

Reflection Worksheet

Name: _____

Date: _____

1. Describe the accessible transportation solution you designed. What were its main features?

2. What were the key challenges in creating a transportation solution for seniors?

3. How did you address the feedback from seniors in your design?

4. What skills did you develop through this project?

5. Reflect on the impact of the transportation solution on seniors' mobility and independence.

6. How did this project increase your awareness of accessibility in transportation?

7. If you were to redesign the solution, what changes would you make?

8. Overall, how do you feel about the final outcome of your transportation solution? Why?

Ideas for Next Steps

- **Create a presentation to give to either City or Municipal Council about the problem you identified, how you addressed it, and what could be done moving forward.**
- **Pathways Considerations:**
 - **Specialist High Skills Major (SHSM)** - Provide students with information on a *Transportation* SHSM if applicable.
 - **Dual Credit** - Explore the possibility of related courses at a local post-secondary institution (e.g. applied automotive operation, diesel engine principles, etc.)
 - **Co-Operative Education** - If students enjoyed this process, encourage them to investigate a co-op in a long-term care home, a business that focuses on transportation, associated trades, or in a pathway/field they are considering pursuing post-secondary
 - **Field Trip** - Take the students that participated in this activity to visit a community partner to learn more about Manufacturing. One example of this could be to a local manufacturing plant that uses tool, die and mold to create auto parts.
 - **Online Career and Individual Pathways Plan (IPP) Tools** - Use the IPP software your school board has licensed (myBlueprint, Xello, etc.) to explore post-secondary options that suit your skills, interests and future plan that are a natural extension of this project.
 - **Skilled Trades** - Encourage career exploration of Skilled Trades that connect to the *Transportation* BBT, such as:
 - Auto Body Repairer
 - Automotive Service Technician
 - Motorcycle Technician (Motorcycle Mechanic)
- **[UN Sustainable Development Goals \(SDGs\)](#)** - Consider having students complete a parallel project to raise awareness around and promote the action for the SDG of their choice. For this project, [Goal 10: Reduced Inequalities](#) fits well.
- **[TTJ3C/4C: Alternator Conversion](#)** (from octe.ca) - This project will allow students to further build their practical skills in hand tool use, soldering, and general project safety. Students will convert readily available automotive alternators into electric motors using basic techniques. Students will gain an understanding of the processes and benefits of electric vehicles compared to traditional fossil fuel power units.
- **[TTJ4C: Regenerative Braking Systems](#)** (from octe.ca) - The students will use previously learned knowledge about energy conversion and electrical systems, specifically electromagnetic induction, to learn about the use of regenerative braking systems in a variety of electric vehicles.
- **[STEM TakeTech Challenge Kit - Transportation](#)** (Gr. 7 & 8)

Sample Rubric

Transportation Technology - Designing Accessible Transportation Solutions

Rubric:

Criteria	Excellent (Level 4)	Good (Level 3)	Satisfactory (Level 2)	Needs Improvement (Level 1)
Needs Assessment	Thorough and insightful assessment of seniors' mobility needs.	Good assessment of seniors' mobility needs.	Basic assessment of seniors' mobility needs.	Incomplete or inaccurate assessment of seniors' mobility needs.
Design Quality	Designs are highly innovative, functional, and accessible.	Designs are functional and accessible.	Designs are somewhat functional but may lack accessibility.	Designs are poorly thought out and not accessible.
Prototyping Skills	Demonstrates excellent prototyping skills and attention to detail.	Demonstrates good prototyping skills and attention to detail.	Demonstrates basic prototyping skills with some errors.	Demonstrates poor prototyping skills with many errors.
Testing and Feedback	Tests prototypes thoroughly and incorporates feedback effectively.	Tests prototypes and incorporates feedback.	Tests prototypes with some feedback incorporation.	Poor testing of prototypes and little feedback incorporation.

Empathy and Understanding	Shows deep empathy and understanding of seniors' mobility needs.	Shows good empathy and understanding of seniors' mobility needs.	Shows some empathy and understanding of seniors' mobility needs.	Lacks empathy and understanding of seniors' mobility needs.
Reflection Quality	Reflection is insightful and deeply connected to the experience.	Reflection is thoughtful and connected to the experience.	Reflection shows some connection to the experience.	Reflection is shallow and disconnected from the experience.

Teacher Observation Checklist	
Transportation Technology - Designing Accessible Transportation Solutions	
Teacher Observation Checklist	
<ul style="list-style-type: none"> ● Needs Assessment <ul style="list-style-type: none"> <input type="checkbox"/> Students conduct thorough assessments of seniors' transportation needs and challenges. <input type="checkbox"/> Assessments reflect a clear understanding of mobility, accessibility, and comfort issues for seniors. <input type="checkbox"/> Students engage with seniors and gather relevant insights and feedback. ● Design Process <ul style="list-style-type: none"> <input type="checkbox"/> Students follow a structured design process to address transportation needs. <input type="checkbox"/> Brainstorming sessions produce innovative and practical transportation solutions. <input type="checkbox"/> Design plans are detailed and focused on accessibility and user-friendliness. ● Prototyping Skills <ul style="list-style-type: none"> <input type="checkbox"/> Students create functional prototypes that represent the design concepts effectively. <input type="checkbox"/> Prototypes demonstrate attention to detail and consideration of accessibility features. <input type="checkbox"/> Students use appropriate materials and methods for constructing prototypes. ● Testing and Feedback <ul style="list-style-type: none"> <input type="checkbox"/> Prototypes are tested thoroughly for functionality, safety, and usability. 	

- Students gather and analyze feedback from seniors and incorporate it into design improvements.
- Iterations of prototypes show clear enhancements based on user feedback.
- **Technical Skills**
 - Students demonstrate proficiency in using design and simulation software.
 - Technical aspects of the transportation solution are well-executed and functional.
 - Students address and resolve technical challenges effectively.
- **Empathy and Understanding**
 - Students show a deep understanding of the mobility and accessibility challenges faced by seniors.
 - Designs reflect a strong consideration of seniors' comfort, safety, and independence.
 - Students actively listen to and address seniors' feedback in their designs.
- **Innovation and Creativity**
 - Students exhibit creativity in developing transportation solutions that address accessibility issues.
 - Designs incorporate innovative features that enhance usability and convenience.
 - Students explore and implement unique solutions to improve transportation for seniors.
- **Collaboration**
 - Students collaborate effectively within their teams and with any external partners.
 - Roles and responsibilities are clearly defined and adhered to.
 - Teamwork enhances the design process and overall quality of the solutions.
- **Presentation Skills**
 - Students present their transportation solutions clearly and professionally.
 - Presentations include comprehensive explanations of the design process, challenges, and solutions.
 - Visual aids and prototypes are effectively used to support and enhance the presentation.
- **Reflection Quality**
 - Students provide thoughtful and detailed reflections on their design experience.
 - Reflections emphasize the impact of the design process on their understanding of accessible transportation.
 - Students discuss how the project influenced their approach to designing for senior mobility.

Teacher Comment Bank

Transportation Technology - Designing Accessible Transportation Solutions

- **Strengths:**
 - Your transportation designs effectively addressed seniors' mobility needs with accessible features.
 - Prototypes demonstrated functionality and usability through testing and refinement.
 - You collaborated effectively with team members to refine designs based on feedback and testing.
- **Areas for Improvement:**
 - Consider exploring additional innovative solutions that can further enhance accessibility and comfort for seniors.
 - Continue to refine your prototyping skills to optimize manufacturing processes and materials usage.
 - Reflect on challenges encountered during the design and testing phases to identify opportunities for improvement in future projects.

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Appendix 1: School Entry Plan into Long-Term Care Facilities

It is important to develop an entry plan for teachers when coordinating with representatives of a seniors' long-term care facility. This involves careful planning and communication to ensure a smooth and effective partnership.

By following this entry plan, teachers can establish a strong foundation for collaboration with seniors' long-term care facility representatives, fostering a productive and enriching educational partnership for all involved.

1. Introduction and Purpose

- Introduce yourself and the educational institution you represent.
- Clearly state the purpose of the partnership: to enhance student learning through engagement with seniors in the facility.

2. Understanding Facility Needs and Expectations

- Schedule an initial meeting with facility representatives.
- Discuss the facility's goals, needs, and expectations for the partnership.
- Explore how students can contribute positively to the facility's environment and activities.

3. Collaboration and Partnership Goals

- Establish mutual goals and objectives for the partnership.
- Identify key areas where students can support and engage with seniors effectively.
- Discuss potential projects, activities, or educational opportunities that align with both parties' interests.

4. Logistics and Planning

- Determine logistical details such as scheduling, frequency of visits, and duration of student engagements.
- Address safety protocols, confidentiality, and any other facility-specific policies or requirements.
- Plan for orientation sessions or training for students regarding facility rules and senior interaction best practices.

5. Roles and Responsibilities

- Clarify roles and responsibilities for both teachers and facility staff.
- Define communication channels and points of contact for ongoing coordination and feedback.
- Discuss methods for evaluating the success of the partnership and making adjustments as needed.

6. Building Relationships

- Emphasize the importance of building positive relationships between students, teachers, and seniors.
- Encourage open communication and regular updates on activities and progress.
- Discuss ways to foster a supportive and respectful environment for all participants involved.

7. Documentation and Consent

- Ensure all necessary documentation, such as consent forms for student participation, is completed and filed appropriately.
- Discuss protocols for documenting student learning outcomes and senior feedback.
- Address any legal or ethical considerations related to data privacy and participant rights.

8. Evaluation and Continuous Improvement

- Establish a timeline for regular evaluation meetings to assess the partnership's impact and effectiveness.
- Solicit feedback from both teachers and facility representatives to identify strengths and areas for improvement.
- Commit to ongoing communication and adaptation of plans based on feedback and changing needs.

9. Follow-Up and Next Steps

- Summarize key points and action items from the meeting.
- Agree on follow-up steps, including scheduling the next meeting or activity.
- Express gratitude for the collaboration and commitment to the partnership's success.

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Sample Email Template to Senior's Long-Term Care Home

This is an email template that teachers can use when approaching seniors' long-term care facilities to propose a partnership with secondary schools to implement the activities involving the 10 broad-based technologies:

Subject: Proposal for Partnership: Enhancing Education through Engagement with Seniors

Dear [Facility Administrator/Contact's Name],

I hope this email finds you well. My name is [Your Name], and I am a [Your Position] at [Your School/Organization]. We are keen to explore a partnership opportunity with [Facility Name] to enhance our students' educational experience while positively impacting the lives of your residents.

Purpose of the Partnership: We aim to integrate practical engagement opportunities into our curriculum through interactions with seniors at your esteemed facility. This initiative not only enriches our students' learning experiences but also contributes meaningfully to the well-being and social connectivity of your residents.

Proposed Activities: Our plan includes activities aligned with the 10 broad-based technologies, tailored to benefit both students and seniors:

1. **Communications Technology:** Digital storytelling projects where students capture and share seniors' stories through multimedia.
2. **Computer Technology:** Basic computer skills workshops to empower seniors with essential digital literacy.
3. **Construction Technology:** Building accessibility projects to enhance facilities for senior residents.
4. **Green Industries:** Establishing and maintaining a community garden for recreational and therapeutic benefits.
5. **Health Care:** Engaging in activities that provide insights into geriatric care and promote well-being.
6. **Hospitality and Tourism:** Organizing social events and activities catered to seniors' interests.
7. **Manufacturing Technology:** Creating assistive devices to improve daily living for seniors.
8. **Technological Design:** Designing senior-friendly products to enhance independence and comfort.
9. **Transportation Technology:** Designing accessible transportation solutions to improve mobility options.
10. **Hairstyling and Aesthetics:** Providing personalized beauty services to promote self-care and confidence.

Next Steps: We would be delighted to discuss this partnership further and explore how we can collaborate effectively to benefit both our students and your residents. Please let us know a convenient time for a meeting or call to discuss the details and address any questions you may have.

Thank you for considering this partnership opportunity. We look forward to the possibility of working together to create a meaningful impact.

Warm regards,

[Your Full Name]

[Your Position]

[Your School/Organization]

[Contact Information]

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Appendix 2: Student Activities/Completed CCEL Projects

Summary of Experiential Project Proposal:

The project I am proposing is building 3-4 raised, wheelchair accessible planter beds for the Espanola Long Term Care Nursing Home. This project would involve 10 students in grade 8 from AB Ellis Public School partnering with a Grade 11 or Grade 12 Carpentry class from the Espanola High School. This partnership would also include Espanola's Long Term Care Nursing Home. All students involved in the project will go on a site visit to the Nursing Home to meet some of the residents that will benefit from our project as well as to meet the staff. While visiting we assess how many planters are required, and where the planters will be installed. We will also take measurements of the space to ensure that the planter blueprints that we have, will work for their space. After the site visit, the grade 8 and grade 11/12 students will begin the construction phase of the project and by the end of term 2 will return to the site to install the planters. It would also be beneficial for students to return for one last visit to the nursing home to have a celebration with the residents and see the planters in use. I have already spoken with staff at the Espanola Nursing Home and they have indicated that these planters are a terrific idea and something that they have a need for.-

Budget Requested - \$5000

-Items included materials for garden boxes, plants, transportation for visits and final celebration materials

Summary of Experiential Project Proposal

I have noticed that many of our students, families and members of the Markstay community feel isolated, especially after the pandemic. Our students in particular struggle to make connections and communicate effectively. I am currently developing a partnership with the Markstay Golden Age Club in which students spend time getting to know the seniors in the community through a variety of activities, including playing board games, reading and going for community walks. What I am hoping to do is to have the students produce a documentary detailing the past, present and future of Markstay with the Senior centers. Once the project is finished, we would like to bring the community together to have a movie premier event.

Budget Requested - \$2500

-Items included cameras and photo editing programs.

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Appendix 3: Reflection Routines & Strategies

1. Reflection Choice Board

Respond to One Question/Prompt from Each Column

WHAT?	SO WHAT?	NOW WHAT?
Name one thing, comment, or idea that stood out to you.	Was the project a success? How do you know?	What could you teach someone else from this?
Describe one thing that you learned today.	How do you feel about the work you and the class did? Be as specific as possible.	What are the benefits for you (and others) from doing this project?
What was your specific contribution to this project?	What was the most challenging part? Explain.	What do you most want to remember about this experience?
Name one way in which your group supported you.	Are you proud of the work you did during this project? Why or why not?	What questions might you want to inquire further about? Why?
What was the most important moment for you during this project?	Was this a positive learning experience for you? Why or why not?	Has this affected your pathways and career thinking at all? Explain.
Describe a challenging situation and how you dealt with it.	How is this like something you have done before?	If you had the chance to do this again, what might you do differently? Why?

2. Getting on the same P.A.G.E.

→ Purpose, Approach, Goals, Everyone

Overview: This is a frontloading strategy that helps groups determine commonalities in their thinking while establishing a purpose for why they are there (facilitated session), a project they want to work on, etc.

Time: 20+ minutes

Equipment: Sticky notes, chart paper, markers, pencils

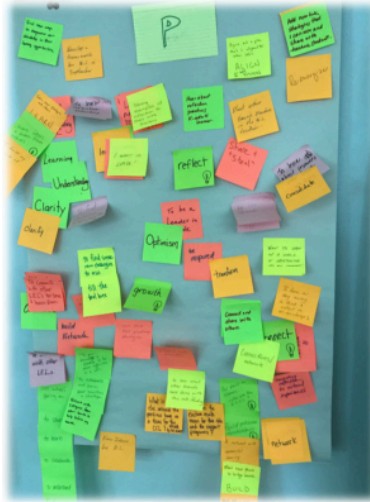
Group Size: Whole Group

In Action:

- Place four pieces of chart paper around the room. Each should have P, A, G, and E written at the top.
- Ensure students have several post-its (~20) and something to write with.
- PROMPT 1: “Thinking about your view, and the views of others, what do you want to get out of _____?” (for every reason, record it on a sticky note) Once each student has had time to record their ideas, partner up with someone, share, put similar ideas together and put them up on the **P** chart paper.
- PROMPT 2: “What approach(s) is going to work for you over the course of _____?” (for every approach, record it on a sticky note) Once each student has had time to record their ideas, partner up with someone, share, put similar ideas together and put them up on the **A** chart paper.
- PROMPT 3: “What individual goals would you like to realize during and at the end of _____?” (for every approach, record it on a sticky note) Once each student has had time to record their ideas, partner up with someone, share, put similar ideas together and put them up on the **G** chart paper.
- PROMPT 4: “Who is responsible for the success of _____?” (for every approach, record it on a sticky note) Once each student has had time to record their ideas, partner up with someone, share, put similar ideas together and put them up on the **E** chart paper.

Bringing it Together: Once students have had a chance to reflect, take some time and look for common themes that emerge. You can do this for the class, or they can do it with you. This can be used as a framework to consider co-constructing Learning Goals & Success Criteria, the interests of the group, and who may wish to take on different roles throughout the course of the Long-Term Care Home partnership.

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3. Plus/Delta

Overview: This reflection technique asks the group to consider what is positive (PLUS) about their actions thus far, and to consider improvement opportunities (DELTA i.e. change) moving forward. Unlike a traditional Pros & Cons list, this model approaches reflection and learning from an asset lens, since the focus is on highlighting success and considering constructive solutions to any challenges or problems that have arisen.

Time: 15+ minutes

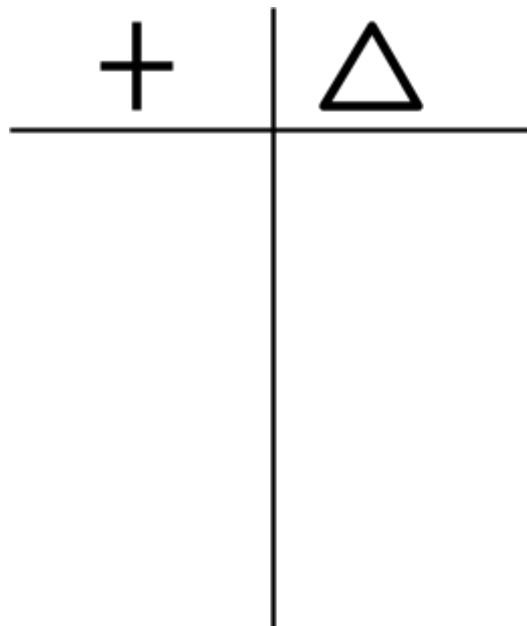
Equipment: Sticky notes, chart paper, markers, pencils

Group Size: Whole Group (split into smaller groups of 3-6)

In Action:

- This routine is great for a mid-way check-in, or upon the completion of a project.
- Present the purpose and model to the class. If you're doing this whole-group, create a T-Chart on a piece of chart paper with a **+** on the left column and a **Δ** on the right column.
 - If you are splitting students into smaller groups, have each group set up their own chart paper this way.
- Invite the class to first identify the positive aspects of the project (i.e. what's going well), and then consider the attributes they would like to change moving forward (i.e. constructive changes).
 - If students have done this independently, make sure you come back as a whole group to share what has been learned.

**Additional examples and protocols for Plus/Delta can be found [here](#).



4. Benefits to Society

Overview: This is a processing activity to help participants think beyond the scope of themselves or their project, and to consider the positive impact that their learning and newly acquired skills could have on a number of different groups.

Time: 10+ minutes

Equipment: Visual aids are needed for this routine. Write the following titles on paper places, index cards, or laminated pages:

Me	Our School
My Partner	Our Society
The Whole Team	Our Country
Other Work Groups	Other Countries
My Family	Our Customers
Our Families	The Whole World
Our Community	Future Generations
Our Class	

Group Size: Whole Group

In Action:

- Upon the completion of the project, ask students to identify what they've learned (you may need to do some additional reflection, found in this section and the next one, to achieve this). This could include knowledge, skills, or personal insights into themselves that they have gleaned.
- Then, ask students to consider how this learning benefits the different stakeholders listed. This could act as a journal prompt or individual reflection first, with the intent on sharing as a larger group afterwards.
- This is also a great opportunity to tie this learning into the [UN Sustainable Development Goals](#), and to consider which of these their skills and learning could address.

For more information, see [A Teachable Moment](#) by Jim Cain, Michelle Cummings, and Jennifer Stanchfield.

5. Playing Card Debrief

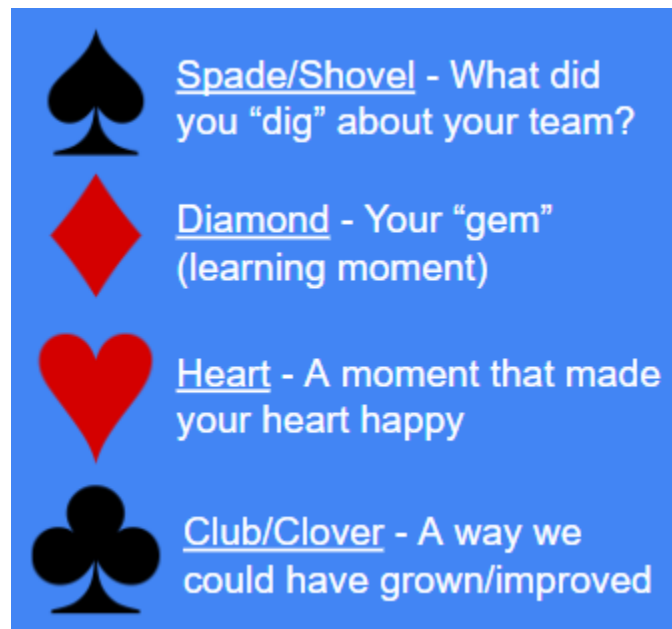
Overview: This activity brings students together for purposeful conversation. At the conclusion of an activity (or project), inform students they'll be considering how their class did as a whole. This routine promotes diversity, communication, and getting to know each other and can be used to talk about an endless list of topics. Using the cards is an easy way to establish the groupings and to start conversations.

Time: 10+ minutes

Equipment: Deck of playing cards

Group Size: Whole Group

In Action:



- Prepare the cards ahead of time, making sure the number of cards equals the number of participants. For example, create groups of 4 by using 4 cards from all 4 suits (i.e., all the 2's, 3's, 4's, and 5's from each of the four suits). The number of students will vary, so balance the groups as closely as possible. You could have groups of 3 or pairs, or even use multiple decks to create larger groups. The important thing is to have your cards prepared before you begin.
- Distribute cards to students. Say: “Do not look at your cards yet. When I say go, look at your card and then find three other people with the same suit (hearts, spades, clubs, diamonds) that you have. Ready, go!”
- Assign a prompt/meaning to each suit and have students discuss. These are really up to you, and can be planned with students as well. Here's a generic example you might want to start with:
 - HEARTS: Talk about a moment that made you happy during this activity.
 - CLUBS: How did/can you grow or improve moving forward?
 - SPADES: What did you “dig” about your team?
 - DIAMONDS: Your “gem” (learning moment)
- Have participants share as a team and then share their team's discoveries with the rest of the class.

6. Exit Tickets

Overview: One of the easiest ways to have students reflect, and for you to get a snapshot of where their learning is at that moment. These are short, simple prompts that get students thinking about and reflecting on their learning in relation to the learning objectives/goals of the lesson or task. Exit Tickets also offer a great opportunity for feedback as well.

Time: 5+ minutes

Equipment: Post-It Notes

Group Size: Whole Group (answering individually)

In Action:

- Give one (max two) prompts to students and have them answer on a post-it note (or via another medium if you prefer). Ideally this should allow students to answer in a way that reflects their learning in relation to the overall goals that have been set out.
- Collect their reflections and assess them for learning.
- The [Reflection Choice Board](#) could be adapted to exit cards very easily
- The website [Thinking Pathways](#) has some good prompts you can use or adapt:
 - What was your goal for this lesson? Did your goals change as you engaged with the task? Did you meet your goal?
 - What is one goal you would like to set for yourself moving forward?
 - How did you work similarly or differently to your peers?
 - What strategies helped you learn?
 - What questions do you still have?
 - 3-2-1: 3 Things I have Learnt. 2 Questions I still have. 1 Challenge I faced.
- [GRADED+](#) also offers some good resources on Exit Ticket questions to engage students, providing information on and examples of different types of questions.

7. Journaling

Overview: Journaling is an effective reflective technique that can be used with nearly any group, K-12 and adults. It can involve a variety of mediums and take a number of forms.

Time: Varies

Equipment: Paper or Journal, something to write with (or access to technology if it's an electronic journal)

Group Size: Individual

In Action:

- Inform students that their writing should reflect their reactions to an activity or experience and their relevance to other aspects of their lives.
- Provide students with structures for their journals. Some good examples can be found on <https://www.teachthought.com/literacy/learning-journals/>
 - Personal Journals
 - Dialogue Journals
 - Highlighted Journals
 - Key Phrase Journals
 - Double-Entry Journals
 - Critical Incident Journals
 - Three-part Journals
- Provide students with prompts or questions you'd like students to answer in their journaling. Some include, but are not limited to:
 - What were your feelings during this activity?
 - What did you like and dislike?
 - What were some of the statements you were telling yourself during the activity?
 - Were you uncomfortable doing anything? If so, what?
 - Were any of your reactions typical (or atypical) to you?
 - Do the experiences in class relate to other aspects of your life? How?
 - Why might someone be excluded from this activity or experience? How could you change this?

8. Later Letter

Overview: This activity allows participants to receive a letter from themselves at a later date to remind them of their experience. The act of writing these letters brings out a different sort of thinking than journaling about an experience. Additionally, they can be read later in the year and how each letter writer has changed and grown can lead to some additional personal reflections.

Time: 20+ minutes

Equipment: Paper, envelopes, pens or pencils, stamps (optional)

Group Size: Individual

In Action:

- Provide students the materials needed to write the letter.
- Invite each student to write a letter to their future self (preferably before the end of the school year) about their experience from this project, and what they hope they will remember/take away from it.
- Some prompts to get students thinking might include:
 - Describe what the experience was about.
 - What surprised you that your future self should be prepared for next time?
 - What engaged you that your future self should try again?
 - How did this experience make you feel?
 - What could you do differently if given this similar opportunity again?
 - What is one thing you hope that your future self remembers about what happened?
- After participants have finished writing, have them seal the letter inside and write their mailing address on the front of the envelope.
- Mail (or give) the letters back to the authors at a strategic time. If possible, have participants choose the date themselves they may wish to receive the letter.

NOTE: For a virtual option, For a virtual option, you could use the Gmail Feature of “Schedule Send” so students could email their future self (and cc you)

9. Reflection BINGO

Overview: Students are asked to identify five events in a row. This activity focuses less on the skills developed over the course of a project. The card assists in self reflection, and each participant gets to choose which row he or she will speak to. There is a great deal of choice in this activity, while still provoking students to consider their own learning throughout the experience.

Time: 15+ minutes

Equipment: Bingo Card (pre-filled example below from [A Teachable Moment](#) by Jim Cain, Michelle Cummings, and Jennifer Stanchfield, pgs 89-90.)

B I N G O

Laughed	Changed Something	Offered a Suggestion	Developed a New Skill	Listened to Someone
Used My Problem Solving Skills	Said Thank You	Was Glad to Be Part of This Team	Tried Something New	Assisted Someone
Saw Something Amazing	Cheered	FREE	Made an Improvement	Sacrificed My Personal Goals for the Good of the Group
Tried but Just Couldn't Do It	Moved Outside of My Comfort Zone	Applauded	Learned Something New	Expanded My Personal Boundaries
Offered Someone Encouragement	Played a Different Role	Consider a Different Point of View	Felt Challenged	Asked Someone for Help

Group Size: Individual, Pair, or Small Group

In Action:

- Provide each student with a reflection bingo card.
- Ask students to independently reflect on their experience. They should be prepared to discuss by choosing any squares that create a line of five boxes in a row.
- Allow students time to discuss with a partner or a small group. If this is done independently, they could write a journal reflection about it.

10. I Used to Think...Now I Think...

Overview: This routine helps students reflect on their thinking about a topic or issue and explore why their thinking has changed. It can be useful in consolidating new learning after an engaging experience as it helps students to identify new understanding, opinions, and/or beliefs. This routine also develops students' metacognitive skills as they really have to think about their thinking..

Time: 5+ minutes

Equipment: Pencil and paper (or journal)

Group Size: Whole Group initially, Small Groups or Individual as students become accustomed to their thinking

In Action:

- Explain to students that the purpose of this activity is to help them reflect on their thinking about the topic and to identify how their ideas have changed over time.
- This makes a great [Exit Ticket](#) as well
- [Harvard's Project Zero](#) lists a possible approach that is easily adaptable for most topics:
 - *"When we began our study of _____, you had some initial ideas about it. Take a minute to remember what ideas you previously had about _____ . Write a few sentences using the sentence starter, "I used to think..."*
 - *"Now, think about how your ideas about _____ have changed as a result of what we've been studying/ doing/discussing. Again, in just a few sentences, write down what you now think about _____ . Start your sentences with, 'Now, I think..."*
- Have students share and explain their shifts in thinking.

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