

YEAR 7 Human Technologies: Unit 2 - Technologies for Collaborative Thinking

Achievement Standard:

In Year 7, students are introduced to the notion of human technologies as all aspects of their lives. Students become aware of technologies as material, physical, social, cognitive tools used to develop self – identity and foster personal growth in independent and collaborative endeavours. The concept of a growth mindset is the vehicle for helping students develop personal goals and to see thinking as a learnt technology that helps them to thrive. **Students are explicitly taught collaborative behaviours linked to 21st Century Skills. They learn the processes and skills required to approach challenges with others in effective and productive ways by maximising personal and group strengths.** They are tasked to think critically by generating and defending claims when exploring community and global issues. During the first year of the course, students are challenged to view themselves as collaborative and self-aware Global Citizens who are well equipped to force positive change.

Unit Specific Information

We are learning to develop our individual strengths for using social technologies to collaborate effectively.
We are learning to take responsible risks and step out of one's comfort zone in order to participate actively and positively.

This unit is intended to develop students' understanding and use of social technologies. Social technologies are the strategies, devices and tactics that dependably allow people to accept difference and engage in collaboration. This unit asks students to work effectively when working to solve complex problems. Fundamentally, this social dimension is the cornerstone of advances in human technologies throughout human history.

Students will focus on developing cognitive and conative skills for collaboration including:

Cognitive Skills

1. Analysing and Utilising Information
2. Addressing Complex Problems and Issues
3. Creating Patterns and Mental Models

Conative Skills

1. Understanding and Controlling Oneself
2. Understanding and Interacting with Others

The demonstration of these qualities, will maximize students' ability to have a positive influence when solving complex problems.

The aim of the unit is to acknowledge that each member of a team has different strengths and areas for growth. This unit will ask students to collaborate using social technologies when undertaking a series of activities. Students will adopt different roles within the team as the challenges progress. Students will learn how to demonstrate leadership and followership qualities.

Guiding Questions:

- What does it mean to collaborate effectively? What does it mean to think interdependently?
- Why is collaboration important?
- What is the process for collaborating effectively?
- What is a leader? Explore leadership qualities and models.
- What personality type am I? What skills are my strengths and areas for growth? What role can I play?
- As a global leader, how can I use social technologies to influence others and have an impact in the Kirwan High and Global community?

Assessment Details:

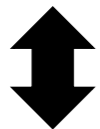
Google Job Challenge and Reflective Evaluation
Students will solve a complex problem to demonstrate the 21st Century Skills for collaborative thinking as part of a Google Job Interview. In order to complete the challenge they must apply collaborative thinking skills to solve the complex problem. Following the collaborative thinking challenge, students will complete an evaluation to identify and evaluate the causal factors that impacted their performance. The evaluation must comment on the cognitive and conative skills of collaborative thinking.

Conditions:

- 4 weeks' notice of the task
- Design Brief Evaluation: 250 - 300 words
- Creating and Editing of Evaluation is on a digital platform (spelling and grammar disabled)
- Teacher feedback on planning and drafting

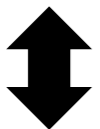
READING / VIEWING/ LISTENING:
Core Text 1: Collaboration Skills: Definitions and Examples (Week 1)
Core text 2: Behaviour definitions (for assertive behaviour Week 5)

COMPREHENSION SKILL FOCUS:
Determining Importance
Concept Map/Power Note



THINKING:

Explain
Create
Interpret



WRITTEN TEXT
Design Brief Evaluation:
spelling and grammar disabled
HIGHLY VALUED LANGUAGE FEATURE FOCUS:
Elaborating clauses.

Priority Standards		
	Thinking Routines – Cognitive	Communication
3	I can use thinking routines to problem solve by organising, analysing and interpreting information.	I can create a design brief evaluation that reflects on the collaborative skills of your team.
2	<p><i>Recognise or recall key vocabulary and concepts:</i> Human Technologies, Cognitive, Divergent and convergent thinking, perspective taking, decision making</p> <p><i>Perform basic processes such as:</i></p> <ul style="list-style-type: none"> ➤ Organise <ul style="list-style-type: none"> ☐ Complete graphic organisers to comprehend, interpret and organise information ☐ Use Excel to organise data to create a graph ➤ Analyse <ul style="list-style-type: none"> ☐ Use graphic organisers to synthesise information and make decisions ➤ Interpret <ul style="list-style-type: none"> ☐ Determine the importance of information using a graphic organiser 	<p><i>Recognise or recall key vocabulary and concepts:</i> Divergent and convergent thinking, perspective, perspective taking, cognitive, conative, self-efficacy, resiliency, collaborative process.</p> <p><i>Perform basic processes such as:</i></p> <ul style="list-style-type: none"> ➤ Create an appropriately structured reflective evaluation ➤ Identify and explain strengths and weaknesses of your own collaborative thinking ➤ Identify and explain the effect of these behaviours on your effectiveness to solve a complex problem ➤ Use elaborating clauses for effect. ➤ Use editing skills to improve the quality of written responses.

Learning Goals:			
Segment and Key Questions	Strand and Sub-Strands	Kirwan High Goals – Students will know and/or be able to:	
What does it mean to collaborate effectively? What does it mean to think interdependently?	<p>Knowledge: Historical, current and future technologies.</p> <p>Collaboration: <i>All sub-strands</i> Understanding and controlling oneself, perspective taking, responsible interaction and controversy and conflict resolution</p>	<ul style="list-style-type: none"> Understand the 21st Century Skills for Collaboration. Recognise the importance of thinking interdepe 	<ul style="list-style-type: none"> Recognise and reflect on perceptions of self. Identify behaviours that enhance or prevent collaboration. Read examples of and identify effective the characteristics of effective collaborators. Use conflict resolution processes and problem solving protocols to collaborate.
Why is collaboration important?	<p>Knowledge: The development of human intelligence</p> <p>Knowledge: Historical, current and future technologies.</p> <p>Collaboration: All sub-strands Understanding and controlling oneself, perspective taking, responsible interaction and controversy and conflict resolution</p>	<ul style="list-style-type: none"> Understand the importance of collaboration. 	<ul style="list-style-type: none"> Identify and analyse examples of collaboration. Critique non-examples of collaboration.
What is the process for collaborating effectively?	<p>Collaboration: All sub-strands Understanding and controlling oneself, perspective taking, responsible interaction and controversy and conflict resolution</p> <p>Communication: Verbal communication, written communication</p> <p>Thinking Routines: Creative Thinking, Critical Thinking</p>	<ul style="list-style-type: none"> Understand that collaboration is a process where multiple people work together to achieve a common goal. Understand that effective collaboration which is dependent on the strength of each individual and how the contribute to teams. 	<ul style="list-style-type: none"> Create team norms and commit to working towards a common goal. Apply thinking routines to define and decompose real-world problems taking into account functional requirements and economic, environmental, social, technical and usability constraints. (ACTDIP027)) Deal with challenge situations in collaborative teams.

	Thinking Routines: Cognitive Strategies		<ul style="list-style-type: none"> • Demonstrate effective communication skills. • Solve problems by using decision making processes to evaluate alternatives in light of criteria. • Evaluate how student solutions and existing information systems meet needs, are innovative, and take account of future risks and sustainability • Plan and manage projects that create and communicate ideas and information collaboratively
What is a leader?	Knowledge: The development of human intelligence Knowledge: Historical, current and future technologies Collaboration: All sub-strands Understanding and controlling oneself, perspective taking, responsible interaction and controversy and conflict resolution Thinking Routines: Comprehension	<ul style="list-style-type: none"> • Understand that each individual is a leader. • Understand that great leaders employ specific skills to enhance their capacity to lead and collaborate with others. • Understand the role of a group leader in collaborative situations. 	<ul style="list-style-type: none"> • Apply leadership skills in collaborative situations. • Explore leadership qualities. [Engage in personal reflection and the application of leadership qualities].
What personality type am I? What skills are my strengths and areas for growth? What role can I play?	Collaboration: Understanding and controlling oneself.	<ul style="list-style-type: none"> • Understand that interacting with others is complex. • Be aware that there are explicit strategies that can be employed to ensure interactions are positive and productive. 	<ul style="list-style-type: none"> • Recognise the power of perspective. • Use processes that enhance perspective taking. • Apply and reflect on their own individual ability to see issues from multiple perspectives.
As a global leader, how can I use social technologies to influence others and have an impact in the	Collaboration: All sub-strands	<ul style="list-style-type: none"> • Understand how individual perspectives, values and ideas can have great influence. 	<ul style="list-style-type: none"> • Apply creative thinking routines to solve real world problems in abstract ways.

Kirwan High and Global community?	Understanding and controlling oneself, perspective taking, responsible interaction and controversy and conflict resolution Communication: All sub-strands Verbal communication, written communication and intercultural communication		
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HOM: Thinking Interdependently

<p>Exploring Meaning of the HOM By the end of this unit students will be able to:</p> <ul style="list-style-type: none"> • Draw upon examples of thinking interdependently in order to develop their awareness of the meaning. 	<p>Expanding Capacity for using the HOM By the end of this unit students will be able to:</p>	<p>Increasing Alertness for the HOM By the end of this unit students will be able to:</p>	<p>Extending Values of the HOM By the end of this unit students will be able to:</p> <ul style="list-style-type: none"> • Clearly connect their ability to think interdependently to both the quality of work produced and their position on the 21st Century Skills for Collaboration Rubric. 	<p>Building Commitment towards the HOM By the end of this unit students will be able to:</p> <ul style="list-style-type: none"> • Evaluate their use of this Habit of Mind using a rubric to reflect on how well they employed the 21st Century skills for collaboration.
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General Capabilities: This unit provides opportunities for students to engage in following capabilities:

<p>Literacy</p> <ul style="list-style-type: none"> ✓ Comprehending texts through listening, reading and viewing ✓ Composing texts through speaking, writing and creating ✓ Text knowledge ✓ Grammar knowledge ✓ Word knowledge <input type="checkbox"/> Visual knowledge <p>Numeracy</p> <ul style="list-style-type: none"> <input type="checkbox"/> Estimating and calculating with whole numbers <input type="checkbox"/> Recognising and using patterns and relationships ✓ Using fractions, decimals, percentages, ratios and rates ✓ Using spatial reasoning <input type="checkbox"/> Interpreting statistical information <input type="checkbox"/> Using measurement 	<p>ICT</p> <ul style="list-style-type: none"> <input type="checkbox"/> Applying social and ethical protocols and practices when using ICT <input type="checkbox"/> Investigating with ICT ✓ Creating with ICT <input type="checkbox"/> Communicating with ICT <input type="checkbox"/> Managing and operating ICT <p>Critical and creative thinking</p> <ul style="list-style-type: none"> ✓ Inquiring - identifying, exploring and organising information and ideas ✓ Generating ideas, possibilities and actions ✓ Reflecting on thinking and processes ✓ Analysing, synthesising and evaluating reasoning and procedures 	<p>Personal and social capability</p> <ul style="list-style-type: none"> ✓ Self-awareness ✓ Self-management <input type="checkbox"/> Social awareness <input type="checkbox"/> Social management <p>Ethical understanding</p> <ul style="list-style-type: none"> <input type="checkbox"/> Understanding ethical concepts and issues ✓ Reasoning in decision making and actions ✓ Exploring values, rights and responsibilities <p>Intercultural understanding</p> <ul style="list-style-type: none"> <input type="checkbox"/> Recognising culture and developing respect <input type="checkbox"/> Reflecting on intercultural experiences and taking responsibility
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Cross Curriculum Priorities:		
it Islander histories and cultures	<input type="checkbox"/> Asia and Australia's engagement with Asia	<input type="checkbox"/> Sustainability
Differentiation [for small groups or individuals]:		