OVERVIEW

This card index is a tool that connects the **NTN Learning Outcome Rubrics** to the **NTN Practices Cards**. It operates as a guide for specific practices facilitators can use to scaffold and assess target indicators in the NTN Learning Outcome Rubrics.

This card index uses **color coding**.

- Each colorful table refers to a specific NTN Learning Outcome Rubric.
- Color-coded card icons within each row refer to practices in other card sets.

Culture Practices · Learner-Centered Practices · Assessment Practices · PrBL Practices

The PrBL Practices Cards are available in digital format in the NTN Help and Learning Center.

The recommended practices in each table are not an exhaustive list. See **"Go Deeper"** in each NTN Learning Outcome sections.

OVERVIEW

What are the NTN Learning Outcomes?

A key pillar in the New Tech Network Model is the use of the Outcomes That Matter - comprising five research-based NTN Learning Outcomes (NTNLOs).

- ✔ KNOWLEDGE & THINKING
- ▤ WRITTEN COMMUNICATION
- ⬡ COLLABORATION
- ↗ AGENCY
- 💬 ORAL COMMUNICATION

What are the NTN Learning Outcome Rubrics?

The NTN Learning Outcome Rubrics have been developed with Envision Learning and the Stanford Center for Assessment, Learning and Equity to help guide student growth in the NTN Learning Outcomes. These rubrics are essential components of project-based learning and problem-based learning units, used by the schools we support. Search NTN Learning Outcome Rubrics and Templates in the NTN Help Center.

BEFORE YOU USE THIS CARD INDEX

Get to know the NTN Learning Outcome Rubrics.

- Search NTN Learning Outcome Rubrics and Templates in the NTN Help Center.

Reflect on which specific outcomes you would like to focus on with your learners.

- Be thoughtful of your learner's needs and cultural assets as you target specific skills to support them with.

Help your learners understand the NTN Learning Outcome Rubrics.

- Explain that the NTN Knowledge & Thinking Rubrics describe a specific set of disciplinary skills to support ways of thinking about content. Help learners see that the other Learning Outcome Rubrics describe key skills in that area.
- Use practices such as **"See, Think, Wonder"** or **"Bookend Lessons"** to introduce specific rubric dimensions (rows) with learners. We recommend introducing one dimension at a time (e.g. Collecting Data). See **Learner-Centered** and **Assessment Practices** for more ideas.
- Ask learners to reflect on their score level and set goals. Use practices such as **"W.O.O.P."** or **"Asset-Based Feedback"** to build learning alliances with learners and inform your scaffolding choices. See **Culture** and **Assessment Practices** for more ideas.

Take time to get to know the NTN Practices Cards.

- Read the Introduction and Overview for each set.

Gather input from all voices to decide on specific skills to target and practices to use.

- Use practices such as **"Focus Groups,"** **"Community Walk"** or **"Co-Design Learning Environments"** to deeply understand which skills and practices would best support your learners. See **Culture Practices** for more ideas.

HOW YOU MIGHT USE THIS CARD INDEX

Use this index to find NTN Practices Cards that scaffold and assess targeted skills.

1. Locate your desired discipline (e.g. Science) or Learning Outcome (e.g. Collaboration).
2. Use the NTN Learning Outcome Rubric Domains (row titles) to select the targeted skill you would like to scaffold.
3. Choose one or more of the suggested practices cards to design a scaffold or assessment to support the targeted skill. Note that this index is not an exhaustive list.
4. Periodically engage in critique and celebrations of work using the indicators from the NTN Knowledge & Thinking Rubrics. Use practices such as **"Praise, Question, Suggestion,"** **"Targeted Peer Assessment"** and **"Exemplary Work Celebration"** to support those processes. See **Learner-Centered** and **Assessment Practices** for more ideas.

Use this index to design focused professional learning.

- Use this index to support teachers in their project-based learning and problem-based learning design through professional learning around specific NTN Learning Outcomes.

Use this index to build alignment.

- Build skill alignment for a given project, lesson, semester, etc. Your grade-level team or whole staff can strategically select practices that target the same skill. Teachers can compare data and reflect upon design and implementation of practices focused on the same outcomes.
- Build single practice alignment. Teachers can engage in cycles of learning around a single practice using the data from learner work as a reflection of how that practice might nurture specific skills.
- Build vertical alignment. Each grade level might choose to focus on specific NTN Learning Outcome skills and implement specific recommended practices that are aligned and build upon one another.

Collaboration

THE 5 NTNLOs

What?
An individual and group's ability to contribute to group tasks.

Why?
Collaboration helps learners develop their academic and social skills, and their skills to contribute to a learning community.

COLLABORATION
Section 1: Individual Collaboration
An individual's ability to contribute to group tasks.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
EQUAL PARTICIPATION	"Community Circles" creates opportunities for learners to engage in equitable discourse	"Participation Quiz" provides opportunities to practice skills and receive feedback
	"Jigsaw" helps learners connect and learn from each other	"Constructivist Listening Dyad Protocol" engages active listening to build trust
COMMUNITY AGREEMENTS	"Co-Create Community Agreements" establishes a safe learning environment	"Community Circles" creates opportunities to practice and co-develop shared agreements
	"Peace Path" or "Restorative Circles" helps develop shared agreements and processes	"Project Team Agreements and Group Roles" creates opportunities to practice and co-develop shared agreements
ROLES	"Peace Path" or "Restorative Circles" helps learners understand individual roles and a conflict resolution process	"Project Team Agreements and Group Roles" create opportunities to co-develop and reflect upon roles
	"Fishbowl" asks learners to practice skills and receive feedback with defined roles	"Jigsaw"helps define roles for learners

COLLABORATION
Section 1: Individual Collaboration
An individual's ability to contribute to group tasks.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
CONTRIBUTION AND DEVELOPMENT OF IDEAS**	"Co-design Learning Environments" advances learners' ideas for classroom success	"Co-Create Community Agreements" helps learners develop a safe learning environment
	"Think, Pair, Share" engages active contribution of ideas	"Chalk Talk" helps learners articulate and expand on their knowledge
RESPECTFUL TONE and STYLE**	"Peace Path" or "Restorative Circles" build respectful skills for conflict resolution	"Socratic Seminar" creates opportunities for learners to practice sharing with respectful tone and style
	"The Best Answer Protocol" creates space for sharing with respectful tone and style	"Establishing a Culture of Critique" helps learners provide critical feedback in a respectful tone and style
POSITIVE BODY LANGUAGE ACTIVE LISTENING**	"Constructivist Listening Dyad Protocol" or "Microlabs" helps learners practice actively listening within a discussion	"Fishbowl" allows learners to observe body language listening in others to improve their own skills
	"Community Circles" allows learners to practice positive body language and active listening	

COLLABORATION
Section 1: Individual Collaboration
An individual's ability to contribute to group tasks.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
WORK ETHIC*	"W.O.O.P." helps learners set goals and monitor their own learning	"Visual Benchmarks" gives learners opportunity to monitor their project deliverables
	"Bookend Lessons" helps learners set goals, and monitor and assess their learning	"Running Rubrics" helps learners monitor learning, receive feedback and take action to improve their work
TEAM SUPPORT*	"Project Team Agreements and Group Roles" creates opportunities to practice agreements and roles within a team	"Co-Create Community Agreements" helps learners check-in on shared agreements
	"What? So What? Now What?" helps learners share ideas and give feedback	"Establishing a Culture of Critique" provides opportunities for learners to give peer feedback and support each other

*Indicates this skill appears only on NTN Collaboration Rubrics for middle and high school students.
**Indicates this skill appears only on NTN Collaboration Rubrics for upper elementary, middle, and high school students

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COLLABORATION
Section 2: Team Collaboration
A group's ability to productively manage group tasks.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
EQUAL PARTICIPATION	"Text Discussion Protocol" engages teams in equitable talk structures	"Think, Pair, Share" engages active listening and participation
	"Constructivist Listening Dyad Protocol" engages active listening rapport	"Jigsaw" and "The Best Answer Protocol" give teams specific roles and tasks to share and learn from each other
PROJECT MANAGEMENT	"Knows and Need to Knows" helps teams drive the inquiry process and develop next steps	"Start, Stop, Continue" helps teams reflect, receive feedback, and develop next steps for project deliverables
	"Visual Benchmarks" helps learners monitor project deliverables	"Running Rubrics" helps learners use rubrics to reflect on and manage their project deliverables
MAKING DECISIONS	"Co-design Learning Environments" helps learners make class decisions	"The Best Answer Protocol" helps teams collaborate through a decision-making process
	"Grade Selectively" helps learners decide what to be graded on	"Targeted Peer Assessment" has teams make decisions on assessments through thoughtful peer feedback

COLLABORATION
Section 2: Team Collaboration
A group's ability to productively manage group tasks.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
PHYSICAL DISPOSITIONS	"Community Circles" helps learners practice ways to collaborate effectively	"Project Team Agreements and Group Roles" helps teams actively listen and contribute their ideas
	"Fishbowl" helps teams practice active listening, engagement and contributions of ideas	"The Best Answer Protocol" helps teams practice observation, listening and effective collaboration
CREATING and USING COMMUNITY AGREEMENTS	"Storytelling" helps learners build trust and rapport to learn from each other	"Project Team Agreements and Group Roles" helps teams actively build a safe learning environment
	"Hopes and Dreams" helps develop shared understanding of each other's needs	"Recognize Your Triggers" helps learners reflect in order to actively contribute to a safe learning environment
INTELLECTUAL DISCOURSE	"Project Team Agreements and Group Roles" helps teams develop shared agreements	"Praise, Question, Suggestion" helps teams share ideas, questions and feedback on project deliverables
	"The Best Answer Protocol" helps teams build on the thinking of others	"Jigsaw", "Concept Attainment" and "Concept Mapping" help teams connect and learn from each other

COLLABORATION
Section 2: Team Collaboration
A group's ability to productively manage group tasks.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
PASSIONATE OWNERSHIP	"Praise, Question, Suggestion" helps teams celebrate their work and receive feedback	"The Best Answer Protocol" gives teams opportunities to advocate and celebrate their work
	"Best Work Archive" gives teams a chance to assess, curate and learn from their best work	"Exemplary Work Celebration" gives teams a chance to celebrate their work
CONFLICT RESOLUTION	"Establish Rituals and Routines" creates systems to support teams through conflict resolution	"Co-Create Community Agreements" enables shared agreements for teams to check-in
	"Peace Path" or "Restorative Circles" helps engage learners in conflict resolution processes	"Community Circles" gives teams opportunities to discuss and practice conflict resolution strategies

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COLLABORATION

REFLECT

- In what ways are learners collaborating in your classroom?
- How are you meeting learners at their comprehension level and helping them take ownership of this skill?
- What specific skills will you target with your learners in this project/lesson, etc.?
- What's a realistic next step for your learners in terms of score levels?
- How are you incorporating critique and feedback to help learners develop this skill?
- How will learners reflect and share what they are learning?
- How will you be mindful of bringing awareness to power dynamics in group work?
- How will learners affirm and extend each others' assets as they collaborate together?

GO DEEPER

- Search "NTN Collaboration Rubrics" in the NTN Help Center
- Search "Collaboration Stamp Sheets" in the NTN Help Center
- Search "How Do I Teach and Assess Collaboration Skills?" in the NTN Help Center
- Search "How Do I Use Team Contracts to Support PBL?" in the NTN Help Center
- Search "Glossary of Scaffolding Activities" in the NTN Help Center

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Agency

THE 5 NTNLOs

What?
A combination of academic mindsets and the ability to take ownership over one's learning.

Why?
Through developing agency, learners will be empowered to actively engage, advocate for themselves, and leverage skills needed to thrive.

AGENCY
Academic Mindsets
An individual's beliefs about intelligence, challenges, and setbacks, their abilities, and the relevance of the material.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
USE EFFORT AND PRACTICE TO GROW	"W.O.O.P." helps learners set learning goals and monitor growth	"Running Rubrics" and "Learning Quizzes" give learners opportunities to monitor progress and growth over time
	"Delayed Grading" gives learners multiple opportunities to use feedback to improve assignment	"Bookend Lessons" helps learners set learning goals, actively monitor and assess their own learning, and make steps for improvement
SEEK CHALLENGE	"Think Beyond Deficits" gives learners opportunity to challenge and re-frame their implicit biases	"Peace Path" and "Restorative Circles" help learners take risks to repair relationships through conflict resolution
	"Empower Students as Co-Teachers" helps learners challenge themselves to lead learning for others	"Clothesline Math" fosters opportunities for learners to seek challenges in learning and contributions
	"Delayed Grading" gives learners multiple attempts to improve their work	"Bookend Lessons" lets learners set learning goals, and monitor and assess their own learning

AGENCY
Academic Mindsets
An individual's beliefs about intelligence, challenges, and setbacks, their abilities, and the relevance of the material.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
GROW FROM SETBACKS**	"S.O.D.A." and "The Incredible 5-Point Scale" help learners reflect on emotional well-being and grow from setbacks	"Learning Quizzes" engages learners in the process of learning without strict measurement or grade anxiety
	"Running Rubrics" gives learners opportunities to reflect on their progress and growth over time	"Favorite Mistake" emphasizes for learners that mistakes can be helpful in deepening understanding
BUILD CONFIDENCE	"Lift up Assets through Co-Facilitation" empowers learners to lead learning	"Asset-Based Feedback" helps learners build confidence in their strengths and successes
	"Socratic Seminar" helps learners build confidence in their individual opinions and assertions	"Exemplary Work Celebration" builds confidence in learners by honoring and celebrating their work
	"Best Work Archive" helps learners reflect on their learning to curate their work	

AGENCY
Academic Mindsets
An individual's beliefs about intelligence, challenges, and setbacks, their abilities, and the relevance of the material.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
FIND PERSONAL RELEVANCE*	"Lift up Assets through Co-Facilitation" helps learners leverage their strengths and lead learning	"Storytelling" and "Math Autobiography" give learners an opportunity to share their personal narratives
	"Hopes and Dreams" gives learners opportunities to voice their hopes for the learning environment	"Co-Design Learning Environments" gives learners space to advocate for themselves and others
	"I Used to Think...Now I think..." gives learners a process to reflect and identify progress towards mastery	"Learner-Led Conferences" allows learners to self-reflect and take charge of their learning
	"Best Work Archive" gives learners a process to reflect on their learning to curate their best work	"Bookend Lessons" gives learners the power to monitor their own learning from introduction to mastery

*Indicates this skill appears only on NTN Agency Rubrics for middle and high school students.
**Indicates this skill appears only on NTN Agency Rubrics for upper elementary, middle, and high school students

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AGENCY
Ownership Over Learning
The ability to learn how to learn and monitor progress to be successful on tasks, school, and life.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
MEET BENCHMARKS	"Entry and Exit Slips" helps learners receive quick formative feedback on their learning objectives	"Spiraling the Driving Question" gives learners opportunities to reflect on project benchmarks
	"Running Rubrics" helps learners reflect on their goals and deliverables	"Visual Benchmarks" helps learners manage deliverables and meet project benchmarks
SEEK FEEDBACK**	"Praise, Question, Suggestion" provides feedback on project deliverables	"What? So What? Now What?" allows learners to share ideas and receive useful feedback on their project deliverables
	"Establish a Culture of Critique" and "Targeted Peer Assessment" provide peer feedback	"Asset-Based Feedback" gives learners individual feedback and support
TACKLE AND MONITOR LEARNING	"W.O.O.P." helps learners set goals and monitor learning objectives	"Knows and Need to Knows" helps learners drive the inquiry process and monitor their learning
	"Learning Quizzes" engages learners in an active process of growth and reflection of their learning	"Bookend Lessons" gives learners opportunities to set goals and actively reflect on their learning throughout a lesson

AGENCY
Ownership Over Learning
The ability to learn how to learn and monitor progress to be successful on tasks, school, and life.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
ACTIVELY PARTICIPATE	"Practice Mindful Moments" helps learners access a calm, regulated brain state to actively participate	"Community Circles" helps learners voices and active participation to build a supportive and inclusive learning environment
	"Start, Stop, Continue" is an action-oriented process to help design practical ideas	"Grade Selectively" helps learners select activities to be graded on
BUILD RELATIONSHIPS	"Connections" allows learners to connect with one another with low social risk	"Community Circles" allows learners to build a learning community and develop safe, inclusive and emotionally supportive relationships
	"Storytelling" allows learners to share their personal narratives to build relationships and establish trust and rapport	"Community Walk" provides space for learners to learn more about and build relationships with their community

AGENCY
Ownership Over Learning
The ability to learn how to learn and monitor progress to be successful on tasks, school, and life.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
IMPACT SELF AND COMMUNITY	"The Paseo or Circles of Identity" helps learners build self-awareness	"Recognize Your Triggers" gives learners opportunities to build self-awareness
	"Multiple Abilities Orientation" expands learners' ideas of the skills that are necessary in math class	"Re-frame Attributes Protocol" helps learners reflect on how their beliefs and perceptions impact their actions towards others
	"Co-Design Learning Environments" creates structured exchanges for learners to improve their learning space	"Community Walk" gives learners an opportunity to learn about ways they can positively impact their community
		"Engage in Mindful Breathing" and "Practice Mindful Moments" helps learners access a calm, regulated brain state

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AGENCY

REFLECT

- What does it look and sound like when learners are using effort and practice to grow?
- How are you meeting learners at their comprehension level and helping them have ownership over this skill?
- Where do learners have voice and choice in their learning?
- How are you scaffolding and assessing for agency so that learners are at the center of learning?
- How are you providing opportunities for learners to deliberately practice and reflect on agency skills?
- How will learners reflect and share what they are learning?
- How will you make space for learners to leverage and extend their cultural assets as they practice agency skills?
- How can you invite learners to lean into their passions and interests as they practice agency skills? For example, how are learners leaning into their passions and interests as they practice ownership over learning in their PBL/PrBL Units?
- How are you reflecting on your own biases and perceptions of what it looks like to have academic mindsets and take ownership over learning? How does your perception influence how you perceive learners' actions as they develop agency skills?
- In order for learners to engage fully in agency skills, they must feel belonging and connectedness in the learning environment. How will you ensure the culture in the learning environment enables those conditions?

GO DEEPER

- Search "NTN Agency Rubrics" in the NTN Help Center
- See Edutopia's article "Using Collaborative Learning to Build Student Agency"
- Search "Glossary of Scaffolding Activities" in the NTN Help Center

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Connecting the NTN Learning Outcome Rubrics to the NTN Practices Cards

THE 5 NTNLOs

New Tech Network Learning Outcomes Card Index

Knowledge and Thinking

THE 5 NTNLOs

What?
The ability to reason, problem-solve, develop sound arguments or decisions, and create new ideas by using appropriate sources and applying the knowledge and skills of a discipline.

Why?
To cultivate opportunities for learners to discover the truth in assertions, think critically, become knowledgable about the world around them, so that they can contribute to a just, democratic and humane society.

KNOWLEDGE & THINKING — MATH: Problem Solving (Grades K-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
PROBLEM SOLVING	"See, Think, Wonder" helps learners analyze the problem	"Launch" and "Explore" allow learners to make sense of the problem and form solution strategies
	"Concept Mapping" helps learners sort constraints, goals, and definitions	"3-2-1 Bridge" helps learners engage in analysis and reflection
REASONING AND PROOF	"Clothesline Math" supports learners in reasoning and proof	"Which One Doesn't Belong?" helps learners discuss math concepts
	"Discuss" helps learners to share strategies, make connections, and share solutions	"Chalk Talk" engages nonverbal communication to share reasoning and proof to math problems
	"Jigsaw" helps learners share multiple representations	"Clothesline Math" helps learners share multiple representations and explain what is relevant and meaningful
COMMUNICATION AND REPRESENTATION	Model how to use multiple representations (graphs, formulas, diagrams) to help explain reasoning	"The Best Answer Protocol" helps learners share what is relevant and meaningful

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KNOWLEDGE & THINKING — SOCIAL STUDIES: Argumentation/Explanation (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
ARGUMENT/THESIS	"Concept Attainment" helps learners understand arguments/thesis	"Jigsaw" engages discussions around examples of relevant arguments/thesis
	"Concept Mapping" helps learners generate and arrange vocabulary/descriptors	"See, Think, Wonder" helps learners understand a relevant and clear argument/thesis
CLAIMS/SUPPORTING IDEAS	"Concept Mapping" helps learners generate specific claims/ideas	"Chalk Talk" engages nonverbal discussions to generate claims/ideas
	"Text Discussion Protocol" helps learners analyze how evidence supports the argument/thesis	"Card Sort" helps learners identify claims/ideas that will sharpen the argument/thesis
COUNTERCLAIMS* *Optional: The inclusion and addressing of counterclaims is not required or appropriate for all kinds of writing (e.g. explanatory writing)	"The Best Answer Protocol" supports group responses to questions and counterclaims	"Four Corners" allows students opportunities to physically respond to questions or counterclaims
	"Fishbowl" helps learners actively respond to questions or counterclaims	"Socratic Seminar" helps learners develop and engage in questions or counterclaims

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KNOWLEDGE & THINKING — SOCIAL STUDIES: Argumentation/Explanation (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
EVIDENCE	"Socratic Seminar" helps learners clearly explain their evidence	"Concept Attainment" helps learners understand clear evidence
	"Card Sort" helps learners arrange and make sense of relevant and clear evidence	"Concept Mapping" helps learners make sense of evidence that will strengthen their argument/thesis
ANALYSIS OF EVIDENCE	"Written Performance Tasks" helps learners explain relevant evidence	"Jigsaw" helps learners describe relevant or non-relevant evidence
	"Three Levels of Text" helps learners analyze evidence in a text	"Think, Pair, Share" helps learners orally explain and analyze evidence with a partner
ANALYSIS AND SYNTHESIS OF SOURCES	"Socratic Seminar" helps learners clearly explain their evidence	"Concept Attainment" helps learners understand clear evidence
	"Card Sort" helps learners arrange and make sense of relevant and clear evidence	"Concept Mapping" helps learners make sense of evidence that will strengthen their argument/thesis

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KNOWLEDGE & THINKING — ENGLISH: Textual Analysis (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
ARGUMENT/THESIS	"Block Party Protocol" helps learners unpack a strong argument/thesis	"Think, Pair, Share" helps learners engage in active listening
	"Concept Mapping" helps learners build an argument/thesis	"Establishing a Culture of Critique" provides opportunities for learners to give feedback on each other's argument/thesis
CLAIMS/SUPPORTING IDEAS	"Block Party Protocol" helps learners unpack a strong argument/thesis with several peers	"Text Discussion Protocol" helps learners identify the most significant and specific claims/ideas that support their argument/thesis
	"Text Discussion Protocol" helps learners clearly describe how evidence supports the argument/thesis	"Concept Mapping" helps learners collaborate to arrange their claims and supporting ideas
COUNTERCLAIMS* *Optional: Not required or appropriate for all kinds of writing (e.g. explanatory) and should be considered optional based on task requirements.	"Chalk Talk" has learners responding to questions and claims through written communication	"Socratic Seminar" helps learners develop and respond to questions and counterclaims
	"Think, Pair, Share" helps learners engage in active listening and participation	"Fishbowl" helps learners actively respond to questions or counterclaims

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KNOWLEDGE & THINKING — ENGLISH: Textual Analysis (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
EVIDENCE	"Think, Pair, Share" helps learners share evidence	"Text Discussion Protocol" provides opportunities to discuss strength of evidence
	"Targeted Peer Assessment" helps peers give critique on strength and relevance of evidence	"Establishing a Culture of Critique" provides opportunities for peer critique on strength and relevance of evidence
ANALYSIS OF IDEAS	"Text Discussion Protocol" helps learners analyze the central ideas or themes and their development and interaction over the course of the text(s)	"Think, Feel, Care" allows learners to analyze ideas with multiple perspectives
		"Chalk Talk" helps learners nonverbally communicate and analyze the central ideas or themes of a text
ANALYSIS OF AUTHOR'S CRAFT* *Not all textual analyses will require the addressing of counterclaims (e.g. explanatory writing) or analysis of author's craft	"Three Levels of Text" helps learners discuss the author's point of view or purpose in a text	"Think, Feel, Care" helps learners consider the author's point of view in a given system
	"Block Party Protocol" uses quotes from text to help learners analyze author's point of view	"Think, Pair, Share" provides learners time to individually reflect on their understanding of author's point of view

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KNOWLEDGE & THINKING — ENGLISH: Argumentation/Explanation (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
ARGUMENT/THESIS	"Text Discussion Protocol" engages discussion to build an argument/thesis	"Think Pair Share" helps learners communicate an argument/thesis
	"Concept Mapping" helps learners generate and arrange vocabulary/descriptors	"Think, Feel, Care" helps learners analyze multiple perspectives to develop an argument/thesis
CLAIMS/SUPPORTING IDEAS	"Concept Attainment" helps learners develop definitions for new concepts	"Card Sort" helps learners provide their own reasonings that support the argument/thesis
	"The Best Answer Protocol" helps learners answer questions with supporting claims	"Chalk Talk" helps learners express in writing the definitions and reasonings for new concepts
COUNTERCLAIMS* *Optional: Not required or appropriate for all kinds of writing (e.g. explanatory) and should be considered optional based on task requirements.	"Fishbowl" helps learners actively respond to questions or counterclaims	"Socratic Seminar" allows for active response and dialogue to claims and counterclaims
	"Four Corners" gives learners opportunities to physically respond to questions or counterclaims	"Chalk Talk" helps learners to address and respond to questions through written dialogue

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KNOWLEDGE & THINKING — ENGLISH: Argumentation/Explanation (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
EVIDENCE	"Text Discussion Protocol" helps learners refer to the most significant evidence	"Concept Attainment" helps learners define strategically integrated evidence
	"Card Sort" helps learners sort and rate evidence by its significance	"The Best Answer Protocol" asks learners to explain evidence and rationale
ANALYSIS AND SYNTHESIS	"Concept Mapping" helps learners make specific connections and draw conclusions	"3-2-1 Bridge" asks learners to examine their understanding, making connections and drawing conclusions about a given topic
	"Text Discussion Protocol" helps learners clearly explain how evidence supports the argument/thesis	"Think, Pair, Share" helps learners practice making connections and drawing conclusions

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KNOWLEDGE & THINKING — SCIENCE: Argumentation/Explanation (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
ARTICULATING A SCIENCE-RELATED ISSUE	"See, Think, Wonder" helps learners think through science-related issues	"Text Discussion Protocol" uses text to help learners develop a science-related issue
	"Chalk Talk" provides opportunity to discuss issues for complex research projects	"Think, Feel, Care" helps learners see multiple perspectives to articulate a science issue
ARGUMENT/THESIS	"Concept Attainment" helps learners understand examples of clear and unclear argument/thesis	"Jigsaw" helps learners unpack models of clear and specific argument/thesis
	"Establish a Culture of Critique" allows learners to give and receive feedback on their argument/thesis	"Targeted Peer Assessment" allows learners to give feedback on their argument/thesis
CLAIMS/SUPPORTING IDEAS	"3, 2, 1 Bridge" helps learners share significant claims/ideas about their new understanding	"Block Party" uses text to help learners understand specific and significant claims/ideas
	"The Best Answer Protocol" helps learners share specific claims/ideas to support the argument/thesis	"Socratic Seminar" gives learners opportunity to share specific ideas to support the argument/thesis

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KNOWLEDGE & THINKING — SCIENCE: Argumentation/Explanation (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
COUNTERCLAIMS* *Optional: Not required or appropriate for all kinds of writing (e.g. explanatory) and should be considered optional based on task requirements.	"See, Think, Wonder" helps learners think through science-related issues	"Chalk Talk" asks learners to respond on their own pace to questions and counterclaims
EVIDENCE	"Socratic Seminar" gives learners a chance to cite specific evidence to a claim/counterclaim	"Text Discussion Protocol" helps learners unpack evidence in text
ANALYSIS AND SYNTHESIS	"The Best Answer Protocol" helps learners explain the strengths and limitations of evidence	"Four Corners" asks learners to physically address and analyze evidence
CONCLUSION	"Think, Pair, Share" helps learners discuss limitations and/or unanswered questions	"I Used to Think...Now I Think..." is a process that helps learners reflect and make conclusions

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KNOWLEDGE & THINKING — SCIENCE: Scientific Research (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
SITUATING SCIENTIFIC INQUIRY	"See, Think, Wonder" helps learners ask relevant content information that supports a question	"Think, Feel, Care" helps learners analyze multiple perspectives about a question
DEVELOPING AND USING MODELS	"Concept Attainment" shows learners examples and non-examples of accurate models to help them develop their own understanding of the concept	"Jigsaw" helps learners collaborate with others to understand and develop expectations for accurate models
STATING A HYPOTHESIS	"Text Discussion Protocol" has learners unpack hypothesis about an investigation	"Chalk Talk" helps learners nonverbally to develop a hypothesis about a question
DESIGNING THE INVESTIGATION	"Start, Stop, Continue" allows learners to co-design and make decisions about a project	"Visual Benchmarks" helps learners collaborate and manage their investigation

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KNOWLEDGE & THINKING — SCIENCE: Scientific Research (Grades 6-12)

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
COLLECTING DATA	"Jigsaw" helps learners collaborate to collect appropriate and relevant data	"Concept Mapping" helps learners organize and collect data
ANALYZING THE DATA	"Which One Doesn't Belong" helps learners identify patterns in data	"See, Think, Wonder" helps learners analyze data
GENERATING INTERPRETATIONS	"Text Discussion Protocol" helps learners generate interpretations from text	"Think, Feel, Care" helps learners practice generating interpretations
DRAWING EVIDENCE-BASED CONCLUSIONS	"The Best Answer Protocol" helps learners develop strong evidence-based conclusions	"Socratic Seminar" provides opportunities for learners to make evidence-based conclusions
COMMUNICATING RESULTS	"I Used to Think...Now I Think..." encourages clear communication	"Establishing a Culture of Critique" helps learners provide self, peer, and group feedback

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BEFORE IMPLEMENTING KNOWLEDGE & THINKING

Understand Alignment between Knowledge & Thinking Rubrics with College and Career Readiness Assessments (CRAs)

- "Proficient" on the Grade 12 Knowledge and Thinking and Written Communication Rubrics are vertically aligned so teachers can assess learners' trajectory towards college readiness starting in middle school.
- Periodically, you may wish to create a task that allows you to assess learners on an entire Knowledge and Thinking and Written Communication rubric in order to assess where they are in regard to a college readiness standard. This is called a CRA.

Engage in Learning around Disciplinary Literacy

- What do experts in your discipline read, write, and communicate? For example, what are scientists reading and writing in their work?
- How is reading/writing/communication in your discipline unique and different from other disciplines?
- How do the NTN Learning Outcome Rubrics help support and measure the type of reading/writing/communication in your discipline?

Go Deeper:
Search "Guide to Individual Written Performance Assessments" in the NTN Help Center

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BEFORE IMPLEMENTING KNOWLEDGE & THINKING

Understand differences between Written Performance Tasks and College and Career Readiness Assessments (CRAs)

	Written Performance Tasks	College and Career Readiness Assessments
Purpose	Assess some aspects of learners' Knowledge and Thinking and Written Communication skills (e.g. a few dimensions on both rubrics)	Assess some aspects of learners' Knowledge and Thinking and Written Communication rubrics as a way to assess progress towards College and Career Readiness
Duration	Depends, but typically, 1-3 weeks	Depends, but typically, 3-6 weeks
Place in Project	Typically, benchmark or individual final product	Typically, benchmark or individual final product
Revision	Some revision and editing included as part of the writing process	Multiple revision opportunities to build towards college readiness standard

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KNOWLEDGE & THINKING

REFLECT

- How has scaffolding knowledge & thinking informed how you might scaffold other NTN Learning Outcomes?
- How are learners engaging in knowledge & thinking in your classroom?
- How are you meeting learners at their comprehension level and helping them have ownership over these skills?
- What specific skills will you target with your learners in this project/lesson, etc.?
- What's a realistic next step for your learners in terms of score levels?
- How are you incorporating critique and feedback to help learners develop these skills?
- How will learners reflect and share what they are learning?

GO DEEPER
- Search "NTN Knowledge and Thinking Rubrics" in the NTN Help Center
- Search "Glossary of Scaffolding Activities" in the NTN Help Center

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Oral Communication

THE 5 NTNLOs

What?
An individual's ability to effectively communicate knowledge and thinking, and engage in clear and thoughtful dialogue through group conversations and presentations.

Why?
Oral communication skills are vital for a learner's social and academic success. Effective verbal communication empowers learners to advocate for themselves, ask relevant questions, and communicate clearly.

ORAL COMMUNICATION — Section 1: Interpersonal Communication
An individual's ability to communicate knowledge and thinking through effective informal, pair, and small group conversations.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
LISTENING AND COMPREHENSION	"Peace Path" and "Restorative Circles" help learners actively listen	"Co-Create Community Agreements" helps learners actively listen
	"Three Levels of Text" and "Text Discussion Protocol" help learners actively listen and share	"Jigsaw", "Block Party", and "Think, Pair, Share" help learners learn and listen from each other
CLEAR PRESENTATION OF IDEAS	"Storytelling" asks learners to share their experiences with others	"The Best Answer Protocol" asks learners to provide clear rationale for their answers
	Use discussion starters or sentence frames to help learners build clarity	"Learner-Led Conferences" asks learners to individually present their learning to a panel
ASKING QUESTIONS	"Community Walk" encourages learners to actively ask their community questions	"Focus Group" engages learners in panel interviews
	"Knows and Need to Knows" promotes active learner inquiry	"See, Think, Wonder" sets the stage for active questioning

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ORAL COMMUNICATION — Section 2: Presentation
An individual's ability to communicate knowledge and thinking orally in presentations.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
CLARITY	"Storytelling" helps learners practice sharing clear narratives	Use discussion starters or sentence frames to help learners build clarity
	"Jigsaw" or "Think, Pair, Share" helps learners practice communicating clearly	"Restating" helps learners practice communicating others' ideas clearly
EVIDENCE	"Codesign Learning Environments" asks learners to share qualitative evidence	"The Best Answer Protocol" helps learners share facts and research to support their argument
	Model what quality evidence and demonstration of a topic look like	"Socratic Seminar" uses group dialogue and critical thinking to build evidence for an argument
ORGANIZATION	Use "Concept Mapping" to help learners organize their thoughts	"Start, Stop, Continue" helps learners and teams create concrete actions to support a line of reasoning
	Use graphic organizers and sentence stems to help learners organize their thoughts	"Spiraling the Driving Questions" helps learners practice organizing answers to the driving questions

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ORAL COMMUNICATION — Section 2: Presentation
An individual's ability to communicate knowledge and thinking orally in presentations.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
USE OF DIGITAL MEDIA/VISUAL DISPLAYS	Provide models of digital media or visual displays that are appropriate for learners' tasks and developmental stages	"Praise, Question, Suggestion" gives learners practice in presenting their products using digital media for peer feedback
	"Learner-Led Conference" with use of digital media helps students practice presenting with visual flow of information	"Critique" and learner input using "Audio and Video Feedback" can allow peers to give critique on products with appropriate digital media

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ORAL COMMUNICATION — Section 3: Delivery
An individual's ability to communicate knowledge and thinking orally in a way that is comprehensible to the audience.

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
LANGUAGE USE	"Storytelling" helps learners practice appropriate language and style	Use videos to build learners' understanding of appropriate language and style
	"Establish a Culture of Critique" helps learners engage in peer critique of presentation after practicing delivery	Create word walls or use sentence starters to support language use
PRESENTATION SKILLS	"Socratic Seminar" helps learners present their ideas about a topic	"Praise, Question, Suggestion" helps learners present their ideas to peers
	Create an anchor chart of what a good presenter looks like and sounds like	"Learner-Led Conference" gives opportunities for learners to present their ideas to a panel
INTERACTION WITH AUDIENCE	"Storytelling" builds practice with presenting and answering questions from an audience	"Fishbowl" helps learners practice audience interaction
	Help learners anticipate audience questions or responses	"Learner-Led Conferences" helps learners practice presenting their ideas and answering questions

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ORAL COMMUNICATION

REFLECT

- How are learners engaging in oral communication in your classroom?
- How are you meeting learners at their comprehension level and helping them have ownership over this skill?
- What specific skills will you target with your learners in this project/lesson, etc.?
- What's a realistic next step for your learners in terms of score levels?
- How are you incorporating critique and feedback to help learners develop this skill?
- How will learners reflect and share what they are learning?
- How are you affirming and extending cultural assets (e.g. linguistic, literate, youth) of your learners as they develop their oral communication skills?
- How are you reflecting on your own biases and perceptions of what it looks like to engage in oral communication? How does your perception influence how you perceive learners' actions as they develop these skills?

GO DEEPER
- Search "NTN Oral Communication Rubrics" in the NTN Help Center
- Search "Glossary of Scaffolding Activities" in the NTN Help Center

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Written Communication

THE 5 NTNLOs

What?
The ability to effectively communicate knowledge and thinking through writing by organizing and structuring ideas and using discipline-appropriate language and conventions.

Why?
Building written communication skills empowers students to effectively communicate their ideas, share their voice, and advocate for their learning.

WRITTEN COMMUNICATION

NTNLO Rubric Dimensions	Practices Cards to Scaffold Skills	
DEVELOPMENT	"Chalk Talk" helps learners to collaboratively develop ideas using written dialogue	"Establish a Culture of Critique" and "Targeted Peer Assessment" engage learners in peer critique and revision to develop their ideas
	Provide authentic writing opportunities (e.g. relevant community issues)	"Visual Benchmarks" helps learners manage the progress of their written performance task
ORGANIZATION	"Concept Attainment" helps learners identify connections to form their own definitions	"Concept Mapping" helps learners organize ideas and evidence in pre-writing
	Support learners with word walls, graphic organizers and sentence frames	"Conferencing" gives an opportunity to receive individual feedback on their writing
LANGUAGE AND CONVENTIONS	"Written Performance Task" gives learners opportunities to apply their knowledge of appropriate language, style and tone (Be clear about what the task is intended for)	Help learners use appropriate tools to skillfully communicate their ideas (e.g. a vocabulary notebook, spell check)
		"Audio and Video Feedback" utilizes recorded evaluation to improve learner understanding of feedback

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WRITTEN COMMUNICATION

REFLECT

- How are learners engaging in written communication in your classroom?
- How are you meeting learners at their comprehension level and helping them have ownership over this skill?
- What specific skills will you target with your learners in this project/lesson, etc.?
- What's a realistic next step for your learners in terms of score levels?
- How are you incorporating critique and feedback to help learners develop this skill?
- How will learners reflect and share what they are learning?
- How are you reflecting on your own biases and perceptions of what it looks like to engage in written communication? How does your perception influence how you perceive learners' actions as they develop these skills?
- How are you affirming and extending cultural assets (e.g. linguistic, literate, youth) of your learners as they develop their written communication skills?

GO DEEPER
- Search "NTN Written Communication Rubrics" in the NTN Help Center
- Search "Glossary of Scaffolding Activities" in the NTN Help Center