Strategic Plan Overview: Language and Culture

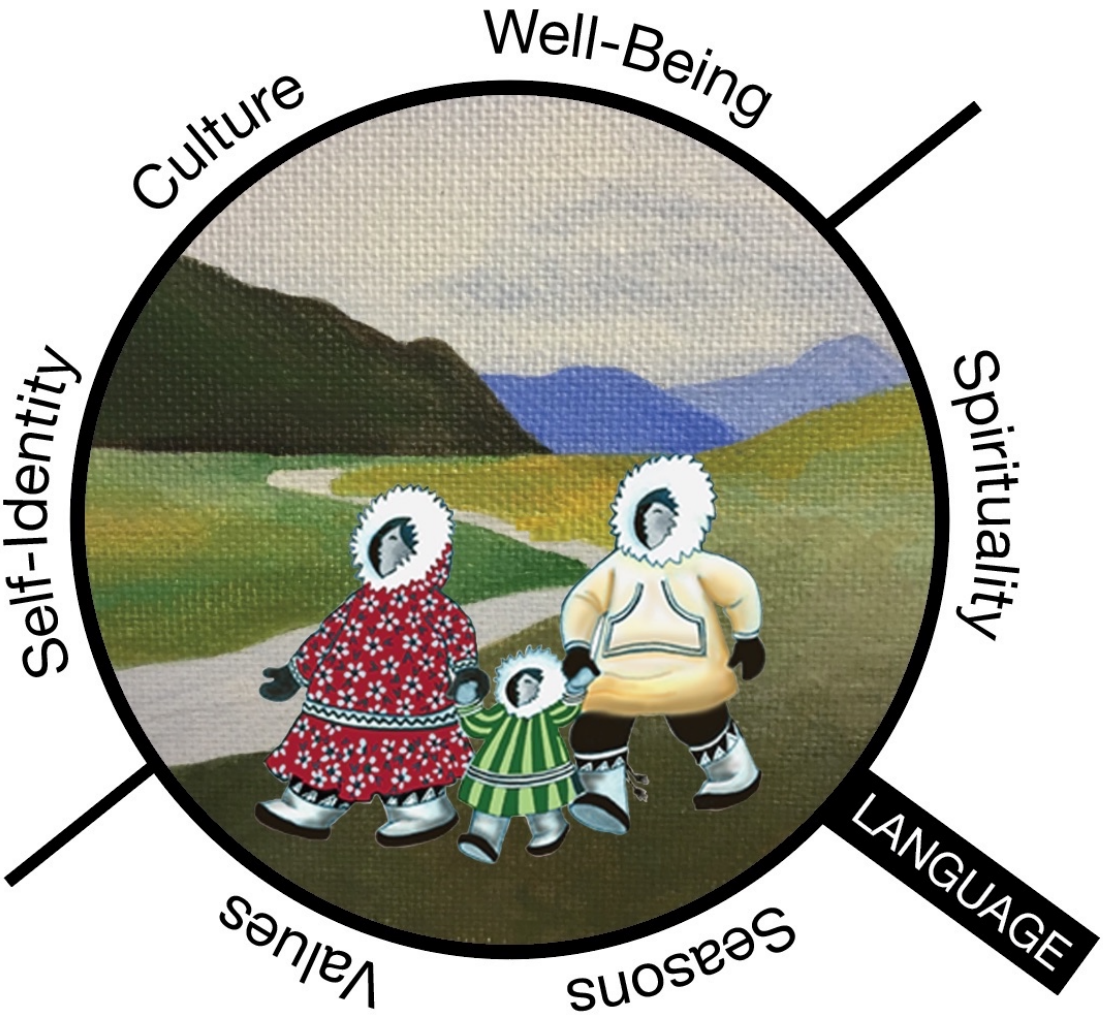
Atautchikun Iñuuniałiptigun

Through Our Way Of Life, Together As One

Like a handle holds the drum so that the beats can be experienced, language is the beat of the Iñupiaq culture.

Through language, we gain a deeper understanding and appreciation of the rich culture around us.

Students, staff, and community are encouraged to help develop the unique sense of place that is the Northwest Arctic Borough School District.



Goal 1: School and Culture				
Objective 1: Community School Connections **NWABSD will work with each site to establish a Tribal/Community Partnership Plan to provide relevant learning opportunities and support. Schools will support the plan with improvement data and ongoing adjustments for continuous improvement.**				
Objective Lead: Superintendent				
Strategies and Actions	**Key Indicators/Metric**	**Completion Date/Timeline**	**Progress**	**Budget (Time & Money)**
1.1.1 Partner with stake holders to strengthen Immersion Inupiaq curriculum through language and culture programs that include goals and actions.	Schools will support the plan with improvement data and ongoing adjustments for continuous improvement. Sign agreements with stakeholders that include goals and actions.	Submit data every quarter Beginning 2nd semester January 2024	75%	
1.1.2 Connect Curriculum with Cultural Ways and Science Knowledge in a local setting.	1. Documentation of partnerships between the school and community. 2. Knowledge bearers in the classroom	Quarter 1,2,3,4	50%	
1.1.3 Inform all stake holders about the progress of school/community connections	Provide progress report.	Bi-annually in October and March	Feedback and surveys	
Objective 2: Immersion School Program **NWABSD will begin an immersion school program starting with PreK level and moving to Kindergarten, 1st, and 2nd grade progressively throughout the next five years.**				
Objective Lead: Superintendent				
Strategies and Actions	**Key Indicators/Metric**	**Completion Date/Timeline**	**Progress**	**Budget (Time & Money)**
1.2.1 Assist Iñupiaq Instructors to obtain their certification through the state of Alaska	1. Determine NWABSD Eligibility for Alternative Certification Options 2. Create a Customized Roadmap 3. Identify Coursework and Professional Development. 4. Develop Field Experience and Mentorship plans. 5. Support for Certification Exams (if applicable) 6. Develop ongoing support, onboarding, and checkpoints for teacher progress. 7. Identify local partnerships to support local context and culturally responsive professional development. 8. Align our system with UA system for cosponsored courses and alternative path consisting of CEUs (budget item).	System Developed: Spring 2025	0%	Unknown
1.2.2 Train our Iñupiaq Instructors fluently into immersion methods of teaching Iñupiaq	1. Identify the path for obtaining fluency a. Develop a roadmap for fluency progression. b. Identify screener/assessment for each level.	System Developed: Spring 2025	2%	Unknown
1.2.3 Provide ongoing professional development for the Iñupiaq Instructors.	1. Identify the path for obtaining fluency 2. Create a roadmap for support. 3. Build sustainability plan for professional development.	Ongoing	15%	Unknown
Objective 3: Cultural Science Curriculum **NWABSD will create a cultural place-based science curriculum using the traditional Native Ways of Knowing and Learning.**				

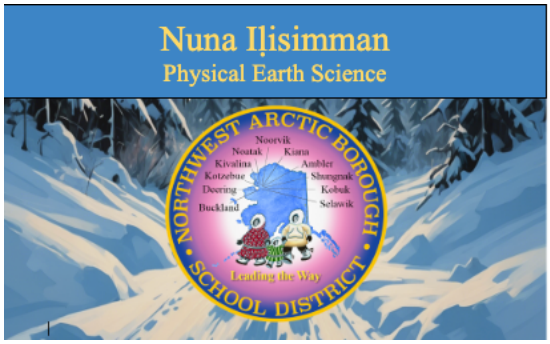
Objective Lead: Superintendent				
Strategies and Actions	**Key Indicators/Metric**	**Completion Date**	**Progress**	**Budget (Time & Money)**
1.3.1 Develop lessons and activities that align with local traditions and practices utilizing natural resources to make the science curriculum more relevant and relatable for all students.	1. Completion of a curriculum map that identifies specific points in the science curriculum where local traditions can be incorporated, with consultation from Elders or cultural leaders. 2. A minimum of 3 hands-on, project-based activities per semester that engage students with the natural environment (e.g., water quality testing of local rivers, plant identification, or studying local wildlife migration patterns). 3. At least 2 community-based science projects per year that involve students working alongside community members (e.g., collaborative projects with hunters, gatherers, or local environmental experts).	In Progress	1. 100% 2. 75% 3. 25%	
1.3.2 Incorporate the Iñupiaq language into the curriculum, promoting language preservation and encouraging students to learn and communicate these concepts in their native tongue.	1. Develop and use vocabulary lists, with both English and Iñupiaq terms, for key science concepts. 2. Work with local Iñupiaq language experts or Elders to integrate traditional stories, phrases, or terminology into science lessons, ensuring students hear and practice Iñupiaq in a real-world context.	In Progress	1. 50% 2. 50%	
1.3.3 Design hands-on, experiential learning opportunities that connect students with the local environment and traditional practices.	1. Collaborate with local experts, such as hunters, gatherers, or Elders, to guide students in traditional practices while integrating relevant scientific principles like ecology or sustainability. 2. Plan field trips or outdoor lessons where students can observe and interact with the local environment.	In Progress	1. 50% 2. 50%	
1.3.4 Establish community partnerships with local organizations and tribal councils to support the development and implementation of the curriculum and ensure ongoing cultural relevance.	1. Form a network with local organizations, tribal councils, and community leaders to regularly consult on curriculum development, ensuring cultural relevance and alignment with community values and traditions. 2. Meet with Iñupiaq Ilisautri and science teachers twice a year to co-develop and review curriculum, ensuring the integration of traditional knowledge, practices, and cultural relevance.	In Progress	10%	
1.3.5 Involve local elders as educators and mentors, recognizing their invaluable role in passing down traditional knowledge.	1. Present the curriculum to the Elders' Council twice a year for feedback and to strengthen local partnerships, ensuring accuracy.	In Progress	10%	

1.3.6 Empower students to explore and share their own traditional knowledge within the curriculum, creating a learning environment where both the teacher and students contribute to the learning.	1. Organize an annual "Local Science Showcase" where students present projects that reflect their learning on local traditions, natural resources, and scientific principles, with community members invited to participate. 2. Create opportunities for students to share personal or family stories that connect with the lesson topics, integrating traditional knowledge into classroom discussions and allowing students to take an active role in contributing to curriculum development.	In Progress	10%	

Culturally-Affirming Curricula: Nuna Ilissaman

- What do students learn about in Physical Science?
- How does Nuna Ilissaman enrich physical science education?
  - Developed with Cultural Context
  - Adaptable for Communities and Subsistence Activties
  - Field Activities

Nuna Iḷisimman / Physical Earth Science



Purpose:
To develop a Physical Earth Science curriculum that is culturally and regionally relevant to the Northwest Arctic Borough School District students.

Rationale:
Recognizing that students do not always see the importance of their school courses, the Northwest Arctic Borough School District has intentionally developed a science course relevant to our communities and world. By incorporating traditional Iñupiaq knowledge that has been passed down through generations with Western science, it is hoped this course will give students a depth of understanding for living in and solving problems in the world around us. This course strives to take the most relevant parts of Physical and Earth Science and relate them to our region and state, making us better-informed citizens.

2024-2025 progress:
June:

- Iñupiaq teachers met in Kotzebue for one week.
    - Page-by-page material review of language, activities, and cultural applications.
    - Development of 20 cultural activities that apply to science.
        - These are being reworked, and the science is being added to them.
        - See the attached examples.

August:

- Science teacher training
    - Scope and Sequence
    - Safety
    - Working with Iñupiaq teachers for culture and language.
    - Course in Canvas ready for day one and how to use CANVAS
    - How do we use the developed course materials and teach them?

September to November:

- Monday collaborative meetings with science teachers:
    - How are things working?
    - How is the pacing?
    - Are you working with the Iñupiaq teachers?
    - What do we need to change in the course?

November 18-21: Professional Development in Kotzebue
Iñupiaq teachers and Science teachers

Meeting Goals:

- Collaborative between Iñupiaq teachers and Science teachers.
    1. Set a monthly site collaborative schedule between the Iñupiaq teachers and Science teachers.
    2. Identify Community Knowledge Bearers.
    3. Identify local resources and places to study.
    4. Make a list of activities to incorporate into the course.
        - Write a template.
        - Determine the unit.
        - List materials/supplies needed
    5. Develop a monthly schedule.
- Course Content Review and Update
    1. Review Unit Preparation Checklist
    2. Update on content creation and ideas for the course.
    3. Review unit lessons and objectives.
    4. Go over the CANVAS course and issues with CANVAS.
- Resourcing labs/activities to include in the course
    1. Write templates for these labs.
    2. Determine which unit they fit.
    3. List materials/supplies needed.

Looking forward: In the late spring, we will meet again for professional development. We will review the spring content and plan for the future.

Items being created for the course:

- Unit Lessons: Read and learn textbooks, lesson plans, assignments, labs, activities, community discussions, and teacher guides.
- Canvas: all materials are loaded and ready for teacher and student use.
- Iñupiaq/English Science Dictionary
- Elder Videos: We are reviewing the videos on file and pulling parts of them to use in lessons.
- Community Projects: we will begin developing community-based projects for the course.
- A monthly schedule, done by all sites on the same day each month:
  Example:
    - 1st Tuesday: Let's Talk Tuesday / community knowledge bearer shares with students
    - 2nd Tuesday: What's the weather? / All sites record weather data and share them to develop skills in observation, data collecting, graphing, etc.
    - 3rd Tuesday: What did you say? / Working with the Iñupiaq teachers to better pronounce the words we have learned in class.
    - 4th Tuesday: Nature Tuesday / District-wide Nature journaling with a monthly theme. Students observe and record different aspects of the changing seasons and ecosystems.

Inupiaq Language and Culture - Science Related Seasonal Themes 1st Draft

Ukiaksraaq Early Fall	**Ukiaksraq** Fall	**Ukiuq** Winter	**Upingaksraaq** Early Spring	**Upingaksraq** Spring	**Auraq** Summer
• Hunting & Food Gathering (Berry Picking) • Cultural Skills • Traditional Plants/Medicine • Knowledge of Family Tree • Weather & Geography • Caribou Collaring	• Hunting & Food Gathering (Preservation) • Cultural Skills • Traditional Plants/Medicine • Weather / Geography • Ice Fishing • Net Setting • Winter Survival • Mud shark Traps	• Hunting & Food Gathering • Cultural Skills • Traditional Plants/Medicine • Weather, Geography & Survival • Winter Survival • Trapping • Ice Fishing • Net Setting	• Hunting & Food Gathering • Cultural Skills • Traditional Plants/Medicine • Weather / Geography • Medicine • Environment • Animals • Winter Survival • Trapping • Ice Fishing • Net Setting	• Hunting & Food Gathering • Cultural Skills • Traditional Plants/Medicine • Weather / Geography • Medicine • Environment • Animals • Winter Survival • Ice Fishing • Net Setting • Winter Survival • Overland Survival Trip (High School)	• Hunting & Food Gathering (Berry Picking) • Cultural Skills • Traditional Plants/Medicine • Weather / Geography • Medicine • Environment • Animals • Summer Culture Camp

All Inupiaq Values will be integrated into the themes.

Inupiaq Values: *Knowledge of Family Tree, Love of Children, Avoid Conflict, Knowledge of Language, Cooperation, Family Roles, Sharing, Hard Work, Humor, Humility, Respect for Elders, Spirituality, Respect for Others, Respect for Nature, Domestic Skills, Responsibility to Tribe, Hunter Success.*

Inupiaq Language and Culture Curriculum and Science
May 1996 contributors: Agnik, Siikauraq, Aqpik, Misrak, Nigruagruk, Bobbe, Aliitchak, Anallaq, Avinnaq, Nanqgaaq, Kappiasuk, Nasruk
July 2022 edited for Science by Zonda Martin and Adeline Kameroff

Iñupiaq Season:
Ukiaksraq: Fall
September

Lab / Activity: Eskimo Potato

Guiding Information / Lesson Overview

Iñupiaq words:
Digging: Paksrak
Eskimo Potato: Masu (C) or Masru (K)
Mouse Cache: Nivit
Digging tool called sikłaq or masunniun is used to unearth the roots.

Hedysarum alpinum is a species of flowering plant in the legume family known by the common name alpine sweet vetch. It is called masu or masru in the Iñupiaq language. It has a circumpolar distribution, occurring throughout the northern latitudes of the Northern Hemisphere.

We will be learning the time and the place to dig for this Eskimo Potato also known as Masru or Masu.

This plant generally grows in the boreal and northern temperate climates. It occurs in tundra and taiga habitat types, in floodplains, grasslands, and dry forests. It is well adapted to calcareous or limey soils. It is usually not a dominant species, but it is considered dominant in several river deltas and plains in Alaska. It is a pioneer species on floodplains that have been recently scoured by water and ice. It grows with willows and birches along waterways and in forests dominated by spruces It grows on grasslands with grass species.

Native Alaskan peoples used and still use the plant for food, particularly the fleshy roots. The roots are said to taste like young carrots. The Iñupiaq people call the plant wild potato and obtain dietary fiber from the roots. They locate stores of roots that have been cached by mice. The roots may be eaten raw or prepared in several ways, including boiling, roasting, and frying in grease. They are stored in seal oil. They are sweeter when stored in seal oil. The seeds should not be eaten raw, or in large quantity. (1)

Learning Objectives:
After completing the lessons in this unit, students will be able to:
1. Know where to find the Masu/Masru.
2. Know what season to harvest these plants.
3. Understand the biomes and soil types of these plants live in.
4. Understand the nutritional value of these plants.

Teacher Background:

Plan and do this activity with your bilingual instructor.
This is an excellent activity to involve elders and community members. They can show you how to find a mouse cache, how to collect the plants, clean, and prepare the food.

Materials:
- Shovel
- Pick Axe
- Gloves
- Bucket or Burlap Sack
- Hand Sanitizer
- Photos of the plant
- A real plant that has been harvested to show the students what it looks like

Time Frame:
Part of three class periods.
Day 1, introduce and discuss the plant.
Day 2, harvest the plants.
Day 3, prepare the plants for eating.

Other words to remember:
Boreal, Tundra, Taiga, Floodplains, Grasslands, River Delta, Pioneer Species, Mouse Cache, etc.

Academic Standards:
- **Iñupiat Iḷitqusiat: Responsibility to Tribe, Hard Work**
- **Alaska Cultural Standards:**
  - **C.1:** Culturally knowledgeable students actively participate in various cultural environments. Students who meet this cultural standard can perform subsistence activities in ways that are appropriate to local cultural traditions.
- **Science Standards for Alaska:**
  - **HS-ESS3-1. Construct an explanation based on evidence for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.**

Lesson Developed by: Dolly Custer, Jennifer Greene, Denny Hadley
June 27, 2024

Directions

Task:

Today you will learn about the Eskimo Potato, Masu/Masru. We will talk about where they live, their nutritional value, how to harvest them, and how to prepare them for eating.

Directions:
Day 1
- **Introduce and discuss the plant.**
- **Where it lives.**
- **Soil types found in.**
- **Nutritional Values**
- **Cultural connections.**
- **Mice caching it.**

Day 2
- **How we will harvest the plants.**
- **Demonstrate safety while harvesting.**
- **How to use a shovel or pick ax**
- **How to clean and carry the harvest.**
- **Respecting the mice by leaving food for them.**

Day 3
- **Prepare the plants for eating.**
- **Prepare for storing.**
- **Safety when eating.**

Works Cited:
1. https://en.wikipedia.org/wiki/Hedysarum_alpinum
2. https://www.arlis.org/docs/vol1/A/29819325.pdf

Iñupiaq Season	Auraq: Summer July/August		Ukiaksraaq: Early Fall August / September					Ukiaskraq: Fall October	
Week	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Week 6**	**Week 7**	**Week 8**	**Week 9**
Unit #	**Unit 1**		**Unit 2**		**Unit 3**			**Unit 4**	
Unit and Topics	**Introduction to Physical Earth Science** Scientific Processes, Indigenous Science Knowledge, Measuring and Organizing Scientific Data		**Describing our Earth** The Spheres of our Earth, The Physical and Chemical Properties of the Earth's Spheres, Ecosystems		**Earth Systems of Matter** Matter, Atoms, Elements and the Periodic Table, Compounds, Molecules, Solutions, Acids and Bases, Elements of our region			**Water and the Atmosphere** Water, Water Cycle, Atmosphere	**Science Skills Review**
Unit Learning Objectives	• **Describe how Indigenous Science Knowledge and Western Science are compatible in their study of the world.** • **Identify how our community studies the world.** • Determine how scientists take measurements and record data • Students will explore the relationship between mass, volume, and density. • Students will demonstrate practical skills in measuring mass, volume, and density.		• Describe what an Earth system is. • Describe the properties and features of the Earth's four main spheres. • Describe the shape of the Earth and the forces that shape it. • Describe how maps and models help communicate information about the Earth and its systems. • **Describe spheres and systems where we live.**		• Distinguish the different properties of matter and how matter is classified. • Explain the fundamentals of atomic theory. • Describe the features and organization of the periodic table of elements. • Identify common elements in our natural surroundings • Describe how compounds and molecules are held together. • Distinguish between mixtures, solvents, & solutes. • Describe the properties of acids and bases.			• Describe the distribution of Earth's water resources. • Describe the movement of water. • Identify the layers and different features of the atmosphere. • Describe what happens during a change of state.	**End of Term Wrap-Up and Science Skills Review**

Cultural Connections	• **Elder discussions:**
	  • How traditional knowledge and science helped them survive.
			• **Elder discussions:**
			  • Ways we describe the Earth.
			  • Ways we were able to navigate.
					• **Elder Discussion: TBD**			• **Elder Discussion: TBD**	

Physical & Earth Science Connections	• Intro. To Science • What is Scientific Inquiry? • Motion • Forces • View of the Earth		• Motion • Forces • Spheres of the Earth • Shape of the Earth • Mapping and Models of the Earth		• What is Matter • States of Matter • Atoms • The Periodic Table			• The Structure of Matter • The Earth's Atmosphere	

Iñupiaq Season	Ukiaskraq: Fall October/November						Ukiq: Winter November/December		
Week	**Week 10**	**Week 11**	**Week 12**	**Week 13**	**Week 14**	**Week 15**	**Week 16**	**Week 17**	**Week 18**
Unit #		**Unit 5**		**Unit 6**		**Unit 7**		**Unit 8**	
Unit and Topics	**Water and the Atmosphere** Water, Water Cycle, Atmosphere	**Weather and Climate** Weather, Air Pressure, Meteorology, Climate		**Earth's Oceans** The Ocean Floor, Ocean Dynamics Ocean Water, Ocean Life, Regional Ocean Conditions		**Earth's Landscapes** Weathering, Erosion, and Deposition, Glaciation and How Glaciers Work, Local Geological Features		**Our Moving Earth** Plate Tectonics & Boundaries, Earthquakes, Volcanos	**Science Skills Review**
Unit Learning Objectives		• Explain the difference between weather and climate. • Describe and use gas laws and their impact on weather. • Explain the influence of air masses on our weather patterns. • Explain what causes the seasons. • **Describe how our region's climate and seasons differ from other parts of our planet.**		• Describe the ocean floor. • Identify the sources of salt in our ocean • Describe factors that affect the density of ocean water. • Describe how ocean currents develop and how they affect climate. • Identify local ocean conditions.		• Describe how physical weathering affects rocks. • Explain the process of erosion. • Recognize the geological impact of glaciation. • Describe the formation of geological features in our environment. • **Identify geological features in our local environment.**		• Describe how the Earth's interior is structured. • Objectives are continued in Week 19	**End of Term Wrap-Up and Science Skills Review**

Cultural Connections		• **Elder Discussion:**
		  • How have you seen climate change? What impact is it having?
				• **Elder Discussion:**
				  • How did you know it would be safe to travel on the ocean?
						• **Elder Discussion:**
						  • When you see cut-banks and tundra slump, how does that impact your subsistence activities?
								• **Elder Discussion: TBD**	

Physical & Earth Science Connections	The Water Cycle Atmospheric Water Running Water Ground Water	The Atmosphere Heat and Temperature Heating the Atmosphere		The Ocean Floor Ocean Floor Features Seafloor Sediments Resources From the Seafloor The Composition of Seawater		Sculpting the Earth's Surface Weathering and Erosion Glaciers Deserts Landscapes Shaped by Wind and Water		Earth's Interior & Plate Tectonics Earthquakes & Volcanoes	

Iñupiaq Season	Ukiq: Winter January/February							Upingaksraaq: Early Spring March	
Week	**Week 19**	**Week 20**	**Week 21**	**Week 22**	**Week 23**	**Week 24**	**Week 25**	**Week 26**	**Week 27**
Unit #	**Unit 8**	**Unit 9**		**Unit 10**		**Unit 11**		**Unit 12**	
Unit and Topics	**Our Moving Earth** **Continued….**	**Rocks and Minerals** Rocks, Minerals, the Rock Cycle, Classes of Rocks, Minerals of our Region		**Our Solar System and the Universe** Solar System Formation, the Sun & Stars, Deep Space, Formation of the Universe, Our Regional View of the Stars		**Earth Systems of Energy** Waves, Sound and Light, Electricity and Magnetism, Aurora Borealis		**Heat and Temperature** Laws of Thermodynamics Energy Transfer and Temperature	**Science Skills Review**
Unit Learning Objectives	• Identify Earth's geological features near plate boundaries. • Describe the causes of earthquakes and volcanic eruptions	• Describe the materials that form and make up rocks. • Distinguish the different classifications of rocks. • **Identify the minerals found in our region.** • **Elder Discussion: TBD**		• Explain where we are in the universe and what its shape and size are in comparison. • Recognize the objects that make up the solar system. • Describe the latest theories on the universe's size, shape, and formation. • Describe how astronomers find planets and know the differences between the different types. • Explain how we identify what a star is made of.		• Describe the characteristics of waves, how they are generated, and the different types of waves. • Determine how sound is generated, • Describe the electromagnetic spectrum and the visible light spectrum. • Distinguish between electrical charges, currents, and circuits. • **Describe how the Aurora Borealis is created and why we can view it.** • Explain how energy from space impacts energy on Earth. • Explain how Kepler's Law, Newton's Law, and Law of Gravity impact Earth.		• Determine how temperature and energy are related. • Describe how energy is transferred and the methods of energy transfer. • Identify the Thermodynamic Laws.	**End of Term Wrap-Up and Science Skills Review**
Cultural Connections				• **Elder Discussion:** • Identify our region's perspective of the stars.		• **Elder Discussion:** Tell us stories you heard about the Northern Lights.		• **Elder Discussion: TBD**	
Physical & Earth Science Connections		Rocks and Minerals Minerals and Matter The Rock Cycle Types of Rocks		Origin of Astronomy Early Astronomy and the works of Copernicus, Kepler, Galileo, and Newton Movement of the Earth The Earth, Moon, and Sun Inner and Outer Planets Properties of Stars The Universe		Waves / Sound and light / Electricity / Magnetism		Work and Energy Heat and Temp.	Sound and Light

Iñupiaq Season	Upingaksraaq: Early Spring March/April					Upingaksraq: Spring April/May/June			
Week	**Week 28**	**Week 29**	**Week 30**	**Week 31**	**Week 32**	**Week 33**	**Week 34**	**Week 35**	**Week36**
Unit #	**Unit 12**	**Unit 13**			**Unit 14**			**Unit 15**	
Unit and Topics	**Heat and Temperature** Continued	**Earth's Resources** Ecosystems, Natural Resources, Fossil Fuels, Renewable/Non-Renewable Resources, Regional Sources of Energy, **Alaska and NW Arctic Resources**			**Humans and Their Impact** Carbon Cycle, Anthropogenic Impact, Greenhouse Effect, Pollution, **Alaska / NW Arctic Environmental Issues and the Human Impact on Alaska's Natural Resources**			**Earth's History and Age** Geologic Time/History, Fossils	**End of Year Wrap-Up**
Unit Learning Objectives	• Continued…. • Describe how energy transfer and methods. • Identify the Thermodynamic Laws.	• Describe what makes up an ecosystem and how it maintains stability. • Identify our Earth's natural resources. • Describe what fossil fuels are, and identify the types of fossil fuels. • Distinguish the differences between renewable and nonrenewable resources. • **Identify examples of renewable energy sources in our region.** • **Identify jobs in energy in our region and state.**			• Describe the carbon cycle and how human activity has impacted the cycle. • Explain what anthropogenic impact means and what its effect is on our planet. • Describe the Greenhouse Effect and how human activity has impacted its process. • Identify the various forms of pollution and methods of mitigation. • **Describe how human activity has impacted Alaska's environment.**			• Explain, analyze, and interpret geologic time scales and the difference between geologic and human time scales. • Discuss how life has evolved and changed along the geologic timeline. • What can fossils tell us about Earth's history?	**End of Term Wrap-Up and Science Skills Review**
Cultural Connections		• **Elder Discussion:** Do you think mining in our region impacts the subsistence lifestyle?			• **Elder Discussion:** Identify negative/positive benefits our communities have received from human activities.			• **Elder Discussion:** Tell us about historical artifacts in our region.	
Physical & Earth Science Connections	Heat and Temperature	Using Natural Resources Conservation of Energy Energy and Mineral Resources Alternative Energy Water, Air, and Land Resources			Petroleum and Gas Formation Types of Energy Resources Energy Conversion What is an Ecosystem The Carbon Cycle Energy and Resources Alternative Energy Sources Water, Air, and Land Resources Protecting Our Resources			Radioactive Dating Geologic Time Earth's Eras	

TEACHER NAME: SAMPLE LESSON PLAN

Course Name: Nuna Iḷisimman	**WEEK OF: August 20-22, 2024**			**Period: 1 and 3**
MONDAY	**TUESDAY**	**WEDNESDAY**	**THURSDAY**	**FRIDAY**
AK State Standard(s) met this week:				
• **AK Cultural Standards for Curriculum:** A1, B1, C1, C3, C7 • **AK State Standards:** HS-ETS1-1 Analyze complex problems			• **Iñupiat Iḷitqusiat:** *Iŋuuniaqatiunik Ikayuutiłiq - Responsibility to Tribe, Iḷisimałiq Iḷagiiłġmik - Knowledge of Family Tree, Savaqatigiiyuyłq – Cooperation, Kamakkutiłiq - Respect for Others*	
Learning Objectives: *"I Can"*				
	•Define Physical Earth Science •Describe how using traditional Iñupiaq knowledge will contribute to a better understanding of Physical Earth Science. •I can state the procedures my teacher has in place to begin class each day.	•I can introduce myself using traditional Inupiaq methods. •Demonstrate language and cultural skills using Iñupiaq introductions. •Define Earth Science. •Define Physical Science.	•Explain how curiosity about the world around us impacts and guides scientific inquiry. •Describe some of the different ways people seek knowledge and make sense of the world around us.	•Demonstrate cultural skills by sharing survival skills learned from elders. •Tell why we study lab safety. •Explain why we study lab safety symbols.
Instructional Strategies & Student Activities: *list in order* what you will be doing in class with your students. **Clarification:** What can we expect to see happening in your classroom? Are you transitioning to multiple activities during class?				
Read and Learn Lesson Number	**1.1**	**1.1, 1.2**	**1.2**	**1.2, 1.3**
	Discuss: •Welcome and Introduction •What this class is and how it is different from others. •What is traditional knowledge and how will it be used in our class. (language, seasons, values, etc.) **Watch Video:** •Discuss, and answer questions about language and the video. **Discuss:** •What is the Iñupiat Iḷitqusiat? •Discuss, Knowledge of Family and why it is important to know this information, tie back to Iñupiat Iḷitqusiat. **Discuss:** •Classroom Procedures/Champs	**Discuss:** •Welcome and Review what we discussed yesterday. •Ask if they have thought about what traditional knowledge is. **Finish** any part of the lesson that was not covered yesterday. **Discuss:** •How elders passed down information and this is key to surviving winters here. •Since this is day two, assign the elder discussion as a homework assignment. This information will be shared in 2 days. **Discuss:** •Introductions and why we will use them. **Activity:** Share your Knowledge of Family •Practice Traditional Introductions **Discuss:** Earth and Physical Science, Studying Earth's Processes and Spheres	**Discuss:** •Welcome and Review what we discussed yesterday. **Practice:** •Traditional Introductions **Finish** any part of the lesson that was not covered yesterday. **Discuss:** •How curiosity impacts and guides Science inquiry. •Describe different ways people seek knowledge. •What is Indigenous Knowledge? •How did Iñupiaq use their knowledge to investigate phenomena. **Watch Video:** •How an Igloo Keeps You Warm **Discuss:** •How have Iñupiaq knowledge assisted with scientific studies. **Read & write** about: •Sharing Traditional Knowledge and Whale Science.	**Discuss:** •Welcome and Review what we discussed yesterday. **Finish** any part of the lesson that was not covered yesterday. **In-Class Activity:** •Sharing traditional survival Information. •Share this information with your elbow partner. **Discuss:** •Begin discussing why we study lab safety. **Watch Video:** •Safety Video: Lab Rules **Discuss:** •Safety Rules •Go over each rule and discuss what it means. •Show the location of safety equipment in the classroom.
Assignments / Classwork / Homework.	**If you assign work for a grade, promptly grade it. This gives value to the assignment.**			
	•Aakalukput aimmaviŋani video pt 1 •Aakalukput aimmaviŋani video pt 2 •Knowledge of Family Tree take home worksheet.	•Elder discussion homework assignment / enter answer into Canvas. •Traditional Introductions worksheet. •Spheres of the Earth	•Video & Quiz: How an Igloo Keeps You Warm •Reading: Sharing Traditional Knowledge and Whale Science.	•Safety Video: Lab Rules .
Assessments (Daily Check-in): what will you use as an assessment for learning today? How will you know they learned it? Success Criteria?				
	Formative assessment built into video, participation in discussion.	Spheres of the Earth Canvas Entry	Exit ticket: write on a paper and hand it to me when they leave, answer this: Have you ever needed to build a snow shelter? Could you safely build one?	Sharing information with elbow partner.
Resources/Materials used this week: what you will be using during your class. Community resource, textbook pages, internet links, etc. If you are showing a video that is not part of the district-approved curriculum, it must have prior principal approval, this includes YouTube videos. Approval forms are at the end of this document.				
Read and Learn in Canvas, Canvas Assignments, Community Knowledge Bearers, Science Videos embedded in the course, Iñupiaq Instructor, Internet Link				

Iñupiaq Language Program

Professional development to establish a clear plan for addressing language and cultural needs.

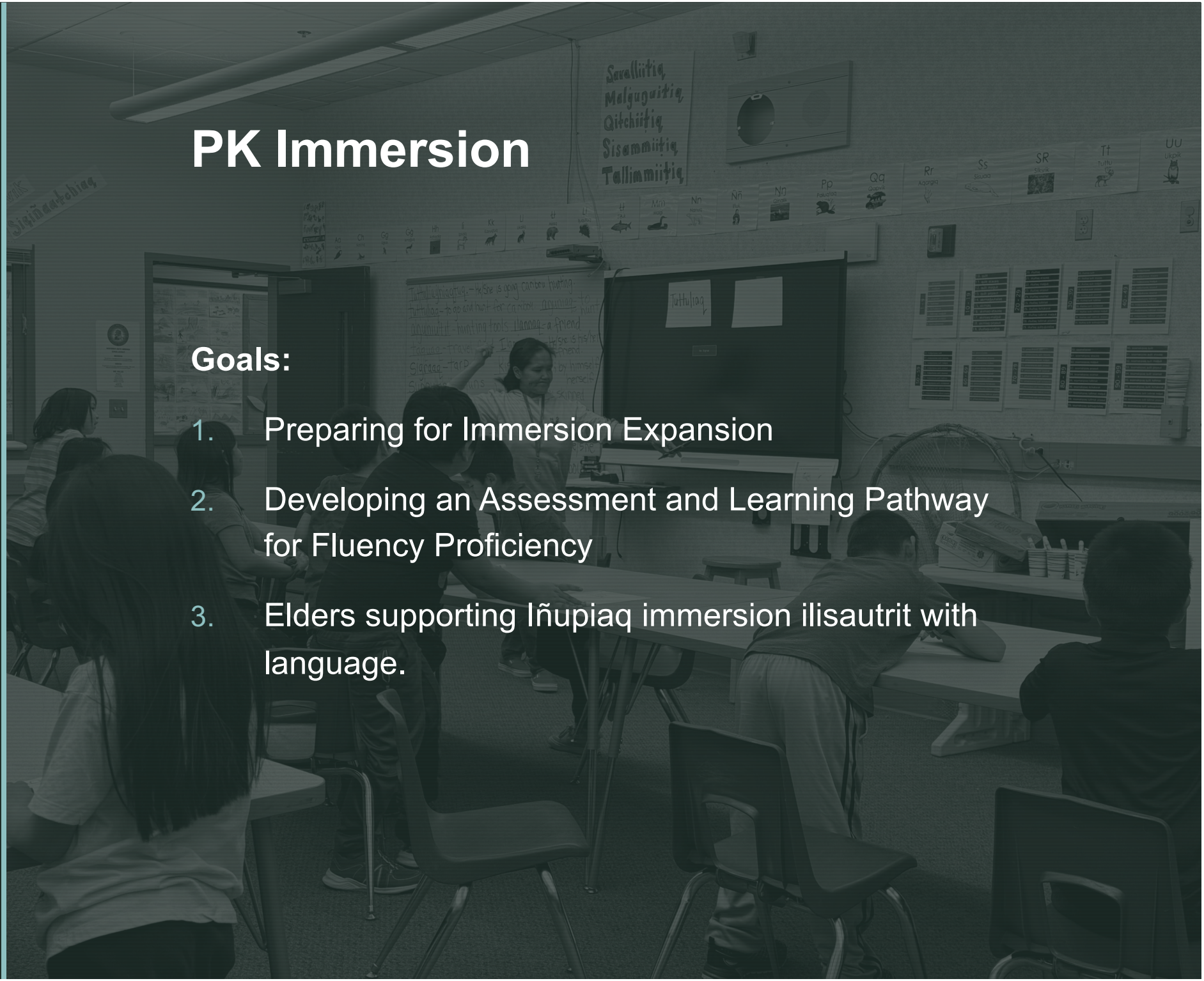
Strengthen relationships with local communities and Elders by documenting traditional knowledge and incorporating it into the curriculum.

Staff development will align components of the curriculum (i.e. Uqayusrałikun, Uqapiaqta, PK Language Program, Seasonal Calendar, etc).

Professional Development: Building Capacity for Expansion

STRENGTHENING IÑUPIAQ LANGUAGE INSTRUCTION

DEVELOPING AN ASSESSMENT AND LEARNING PATHWAY FOR FLUENCY PROFICIENCY



PK Immersion

Goals:

1. Preparing for Immersion Expansion
2. Developing an Assessment and Learning Pathway for Fluency Proficiency
3. Elders supporting Iñupiaq immersion ilisautrit with language.

(Pre-K) Iñupiatun Assessment Benchmarks		
Grade Level	Winter (December) Benchmark	Spring (April) Benchmark
(Pre-K)	Count to 5	Count to 7.
	Know their Inupiaq name/my name is.	Know how to introduce themselves using their Inupiaq name.
	Can recite some of the alphabet (achagat) A, CH, G, Ġ, H	Can recite some of the alphabet (achagat)A, CH, G, Ġ, H, i, L Ł Ļ ļ
	Know 2 school supplies: pencil or scissors, or a chair	Know 3 school supplies: book or a ruler or tape or paper
	Know atleast 2 body parts: head, hand, fingers, toes.	Know atleast 3 exterior body parts: head, hand, fingers, shoulders, knees
	Know simple directions and instructions such as: Sit down, stand up and Line up	Know simple directions and instructions such as : Sit down, Stand up, Line up and You all Listen
	Know 1 land animal and 1 sea mammal: caribou, seal	Identify 2 land and 1 sea mammal : caribou, bear, bearded seal

Inupiaq Instructor will do a pre-assessment late-August- early-September to cover the ongoing yearly growth. This baseline assessment will help the instructor guide lesson plans for high immersion language achievements.

Example: Evaluate students with the same assessment tool for the language requirements for Fall, if they are more fluent then move forward with advanced materials.

(K) Iñupiatun Assessment Benchmarks		
Grade Level	Winter (December) Benchmark	Spring (April) Benchmark
(Kindergarten)	Count up to 10	Count to 10.
		Begin to say the Inupiaq Pledge and the song
	Know their Inupiaq name/my name is.	Know how to introduce themselves using their Inupiaq name.
	Identify atleast 5 primary colors	
	Identify 5 simple school supplies: pencil, scissors, pen, chair, clock.	Identify 5 simple school supplies: pencil, scissors, ruler, eraser, crayons.
	Identify atleast 2 exterior body parts head, hand, fingers, toes.	Identify body parts elbow, neck, stomach.
	Respond to questions: How are you? Are you cold? What is the weather like today?	Respond to questions: How are you? What is the weather like today?
	Identify 5 letter sounds in the Achagat.	Identify 7 letter sounds in the Achagat.
	Responds to commands : “Stand up” “Sit down” “push your chair in” “line up”	Responds to commands: “Time to Go”, “time to clean up” , “go get your pencil and paper”
	Introduce 1 land animals and 1 sea mammal: musk ox, beluga	Identify 2 land animals and 1 sea mammal: wolf, fox, whale

Inupiaq Instructor will do a pre-assessment late-August- early-September to cover the ongoing yearly growth. This baseline assessment will help the instructor guide lesson plans for high immersion language achievements.

Example: Evaluate students with the same assessment tool for the language requirements for Fall, if they are more fluent then move forward with advanced materials.

(1st) Iñupiatun Assessment Benchmarks		
Grade Level	Winter (December) Benchmark	Spring (April) Benchmark
(1st)	Count to 10	Count to 15
	Inupiaq Pledge and song	Inupiaq Pledge and song
	Recognize most of the Alphabet	Know and Identify most of the Alphabet
	Recognize and trace their name.	Recognize and trace their name.
	Practice introducing themselves	Know how to introduce themselves
	Identify primary colors	Know and identify primary colors
	Identify 5 simple school supplies: pencil, scissors, pen, desk	Know and identify 10 simple school supplies: e.g. pencil, scissors, ruler, eraser, crayons etc.
	Identify exterior body parts such as head, shoulders, fingers, toes.	Know and identify additional exterior body parts such as elbow, neck, stomach.
	Begin to verbalize and understand simple one sentence questions and statements: e.g. How are you today? How is the weather? My favorite color is red.	Verbalize and understand simple one sentence questions and statements: e.g. How are you today? Are you cold? My favorite color is red.
	Introducing simple directions and instructions.	Understanding directions and instructions.
	Identify 2 land animals and 1 sea mammal: caribou, moose, seal	Identify 3 animals and 1 sea mammal:wolf, bear and walrus

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Inupiaq Instructor will do a pre-assessment late-August- early-September to cover the ongoing yearly growth. This baseline assessment will help the instructor guide lesson plans for high immersion language achievements.

Example: Evaluate students with the same assessment tool for the language requirements for Fall, if they are more fluent then move forward with advanced materials.

(2nd)Inupiaq Language Assessment Benchmarks		
Grade Level	Winter (December) Benchmark	Spring (May) Benchmark
2nd Grade	• Count to 20 • Months of the Year • Days of the Week • Write their name • Know and identify primary colors: Red, Orange, Yellow, Blue, Brown • Know atleast 5 school supplies: chair, table, clock, book,paper, tape, glue • Know atleast 3 exterior body parts such as head, hand, fingers, toes • Begin to verbalize and understand one sentence questions: How are you today? How is the weather? • Recognize the alphabet: letter and the sounds • Identify 2 mammals and 2 animals.	• Count to 30 • Months of the Year • Days of the Week • Write their name • Know how to introduce themselves using their Inupiaq name. • Know and identify primary colors and 5 additional colors:Black, Purple, Pink, White and Green • Know and identify 3 additional school supplies: glue, tape and crayons • Know and identify additional exterior body parts such as elbow, neck, stomach, legs and arms. • Verbalize and understand one sentence questions: How are you today? Where are you going? • Recognize the alphabet: letter and the sounds • Learn to recite cultural songs. • Identify 2 mammals and 2 animal.

Inupiaq Instructor will do a pre-assessment late-August- early-September to cover the ongoing yearly growth. This baseline assessment will help the instructor guide lesson plans for high immersion language achievements.

Example: Evaluate students with the same assessment tool for the language requirements for Fall, if they are more fluent then move forward with advanced materials.

(3rd) Inupiaq Language Assessment Benchmarks		
Grade Level	Winter (December) Benchmark	Spring (May) Benchmark
3rd	• Count to 35 • Months of the Year • Days of the Week • Know and identify primary colors: Red, Orange, Yellow, Blue, Brown • Know and identify 5 school supplies: chair, table, clock, tape, book, glue • Know and identify exterior body parts such as head, hand, fingers toes, legs, arms, back, front, left and right. • Begin to verbalize and understand one sentence questions: How are you today? How is the weather? • Recognize the alphabet: letter and the sounds. • Identify 3 mammals and 3 animals.	• Count to 40. • Months of the Year • Days of the Week • Know how to introduce themselves using their Inupiaq name. • Know and identify primary colors and 5 additional colors: Black, Purple, Pink, White and Green • Know and identify school supplies: crayons, book and computer • Know and identify additional exterior body parts such as elbow, neck, stomach, names of the fingers, singular and plural forms also. • Verbalize and understand one sentence questions: How are you today? Are you cold? • Recognize the alphabet: letter and the sounds. • Identify 3 mammals and 3 animals.

Inupiaq Instructor will do a pre-assessment late-August- early-September to cover the ongoing yearly growth. This baseline assessment will help the instructor guide lesson plans for high immersion language achievements.

Example: Evaluate students with the same assessment tool for the language requirements for Fall, if they are more fluent then move forward with advanced materials.