# Curriculum and Instruction

Northwest Arctic Borough School District

April 10, 2023, Curriculum Committee Meeting

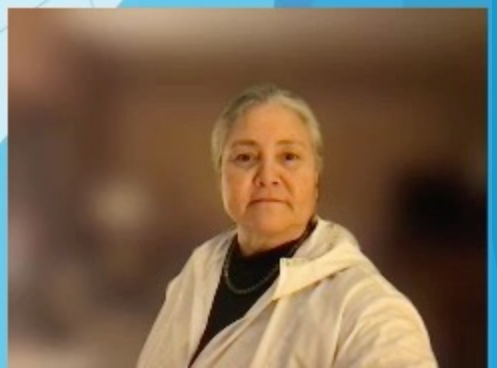
# Agenda

- Iñupiaq Science Curriculum Overview
  - Video
  - Scope & Sequence
  - Unit Design
- Selected Activities
- Updated Schedule
- Questions and Comments

# Iñupiaq Science Curriculum


https://www.nwarctic.org/domain/30

Terri Walker, Superintendent



# Overview of the Components

- While moving through the traditional Iñupiaq seasons, this course will concentrate on four main areas of Earth Science.
  - Geology – Study of the Earth
  - Oceanography – Study of the oceans
  - Meteorology – Study of the atmosphere, weather, climate
  - Astronomy – Study of the universe

- Physical Science concepts will be incorporated into each unit.

- Regional Iñupiaq traditions and culture are incorporated as much as possible into our curriculum.
  - Iñupiat Iḷitqusiat
  - Alaska Cultural Standards
  - Iñupiaq Learning Framework Performance Standards

# Scope and Sequence

**Northwest Arctic Borough School District**
**Unit Science Curriculum Map**

| Inupiaq Season | **Ukiaksraaq: Early Fall August/September/October** | | | | | | | **Ukiaskraq: Fall** | |
|---|---|---|---|---|---|---|---|---|---|
| Week of School Term | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 | Week 9 |
| Physical Earth Science | Introduction to Earth Science and Developing Science Skills | | Describing our Earth Part 1 | | Earth Systems of Matter and Energy | | Meteorology Water, Weather, Atmosphere, and Climate | | Science Skills Review |

| Inupiaq Season | **Ukiaskraq: Fall October/November** | | | | **Ukiq: Winter November/December** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Week of School Term | Week 10 | Week 11 | Week 12 | Week 13 | Week 14 | Week 15 | Week 16 | Week 17 | Week 18 |
| Physical Earth Science | Water, Weather, Atmosphere, and Climate | | The Ocean | | Describing our Earth Part 2 | | Landscapes: weathering, erosion, and deposition Glaciation and how glaciers work | | Science Skills Review |

| Inupiaq Season | **Ukiq: Winter January/February** | | | | | | | **Upingaksraaq: Early Spring** | |
|---|---|---|---|---|---|---|---|---|---|
| Week of School Term | Week 19 | Week 20 | Week 21 | Week 22 | Week 23 | Week 24 | Week 25 | Week 26 | Week 27 |
| Physical Earth Science | Landscapes: weathering, erosion, and deposition Glaciation and how glaciers work | | | Our Moving Earth Earthquakes, Volcanos, Rocks, Minerals | | | Geological resources | | Science Skills Review |

| Inupiaq Season | **Upingaksraaq: Early Spring March/April** | | | | **Upingaksraq: Spring April/May/June** | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Week of School Term | Week 28 | Week 29 | Week 30 | Week 31 | Week 32 | Week 33 | Week 34 | Week 35 | Week 36 |
| Physical Earth Science | Our Solar System and the Universe | | | Earth's History and Age | | | Human Impact on our Earth | | Science Skills Review |

# Unit Design

- Seasonal Information
- Length of Unit
- Essential Questions
- Learning Objectives
- Assessments
- Vocabulary
- Performance Expectations
- Links
- Interdisciplinary Projects
- Instructional Practices
- Standards

*See attachment d & e*

# Activities

- Strengthen the understanding of the science concept
- Strengthen the understanding of the local community
- Strengthen the students' Iñupiaq language skills
- Reinforce Iñupiaq or Indigenous "ways of knowing"
- Develop a portfolio of written resources
  - Culture
  - Language
  - Science

*See attachments f & g*

# Updated Schedule

**June - December 2022**
- Develop an outline of topics/units covered
- Develop an outline of units
- Unit/lesson shell in canvas
- Begin unit mapping of the **Physical Science** course
- Report progress to Curriculum Committee (September)
- Meet with the Language Task Force (October)
- Meet with the Inupiaq Instructors (November)
- Meet with the Language Task Force (December)
- Begin development of first 1/3 of units/lessons

**January - May 2023**
- Meet with UAF School of Education
- Identify the Project Development Committee
- Meet with Project Advisory Committee (March)
- Report progress to NWABSD Board Curriculum Committee (April)
- Complete first 1/3 of units/lessons
- Meet with Project Advisory Committee (April - virtual)
- Complete final 1/2 of units/lessons
- Meet with Inupiaq Instructors at Monday meetings (as needed)
- Develop a timeline for staff development resource creation (Physical Science/ Place-based)

**June- July 2023**
- Develop a plan for pilot (two to three sites)
- Complete the first phase of staff development resource creation
- Finalize all materials, labs, teacher materials for first ½ of course

**August 2023**
- Course posted in Commons of Canvas
- Present staff development to science teachers during in-service
- Physical Science course (pilot sites)
- Place-based science all grades
- Launch Physical Science course in district pilot high schools

# Committee Work

# QUESTIONS