

REACH Up High School (Grades 9-12) Curriculum

Theme 1 — Changing Climate (tentative lesson titles - pilot testing spring semester 2018)

Unit 1: Observing Weather

HS.1.1 Ask an Expert

HS.1.2
Vocabulary

HS.1.3
Instruments for Measuring Weather

Unit 2: Environmental Cycles

HS.2.1 Ask an Expert

HS.2.2
Vocabulary

HS.2.3
The Greenhouse Effect

HS.2.4 Water Temperature and CO₂ solubility

Unit 3: Seasonal Shifts

HS.3.1 Ask an Expert

HS.3.2
Vocabulary

HS.3.3
Analyzing Climate Data

HS.3.4 Seasons in Different Regions

Theme 2 — Changing Landscapes (pilot testing spring semester 2017)

Unit 4: Thawing Permafrost

HS.4.1 Ask an Expert
Video: *Permafrost Thaw*

HS.4.2
Vocabulary

HS.4.3
Engineering for Permafrost

Unit 5: Shrub Expansion

HS.5.1 Ask an Expert
Video: *Vegetation Changes*

HS.5.2
Vocabulary

HS.5.3 Estimating Shrub Height

Unit 6: Coastal Erosion

HS.6.1 Ask an Expert
Video: *Coastal Erosion*

HS.6.2
Vocabulary

HS.6.3
Coastline Mapping

Theme 3 — Changing Lifestyles (pilot testing fall semester 2017)

Unit 7: Impact on Infrastructure

HS.7.1 Ask an Expert
Video: *Impact on Infrastructure*

HS.7.2
Vocabulary

HS.7.3
Water Quality

Unit 8: Natural Resources

HS.8.1 Ask an Expert
Video: *Impact on Energy*

HS.8.2
Vocabulary

HS.8.3 Renewable and Nonrenewable Fashion Show

HS.8.4 The Carbon Footprint of Shipping

Unit 9: Impact on Subsistence

HS.9.1 Ask an Expert
Video: *Impact on Subsistence*

HS.9.2
Vocabulary

HS.9.3 Timing of the Salmon Run

HS.9.4 Counting Caribou