

# REACH Up Middle School (Grades 6-8) Curriculum

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

### Unit 1: Weather & Climate

MS.1.1 Ask  
an Expert

MS.1.2  
Vocabulary

MS.1.3  
Instruments for Measuring  
Weather

MS.1.4 Observation  
Techniques

MS.1.5 Climate  
Trends

### Unit 2: Environmental Cycles

MS.2.1 Ask  
an Expert

MS.2.2  
Vocabulary

MS.2.3  
The Water Cycle

MS.2.4 The  
Greenhouse Effect

### Unit 3: Seasons

MS.3.1 Ask  
an Expert

MS.3.2  
Vocabulary

MS.3.3  
Solar System

MS.3.4 Subsistence  
Seasonal Calendar

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

### Unit 4: Thawing Permafrost

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

MS.4.2  
Vocabulary

MS.4.3  
Measure Lake Loss

### Unit 5: Shrub Expansion

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

MS.5.2  
Vocabulary

MS.5.3 Quantifying  
Shrub Expansion

### Unit 6: Coastal Erosion

MS.6.1  
Ask an Expert

MS.6.2  
Vocabulary

MS.6.3  
Community Shorelines

## Theme 3 — Changing Lifestyles (tentative lesson titles - pilot testing fall semester 2018)

### Unit 7: Infrastructure

MS.7.1 Ask  
an Expert

MS.7.2  
Vocabulary

MS.7.3  
Infrastructure Changes

MS.7.4  
Northwest Passage

### Unit 8: Subsistence

MS.8.1 Ask  
an Expert

MS.8.2  
Vocabulary

MS.8.3 Marine  
Subsistence Changes

MS.8.4 Land  
Subsistence Changes

### Unit 9: Energy

MS.9.1 Ask  
an Expert

MS.9.2  
Vocabulary

MS.9.3  
Carbon Cycle

MS.9.4 Where  
does our energy come  
from?

MS.9.4  
Green Energy

# REACH Up High School (Grades 9-12) Curriculum

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

### Unit 1: Weather & Climate

HS.1.1 Ask  
an Expert

HS.1.2  
Vocabulary

HS.1.3  
Instruments for Measuring  
Weather

HS.1.4 Land  
and Ocean

HS.1.5 Measuring  
Climate Change

### Unit 2: Environmental Cycles

HS.2.1 Ask  
an Expert

HS.2.2  
Vocabulary

HS.2.3  
The Water Cycle

HS.2.4 The  
Carbon Cycle

### Unit 3: Seasons

HS.3.1 Ask  
an Expert

HS.3.2  
Vocabulary

HS.3.3  
Solar System

HS.3.4 Seasonal  
Shifts

## 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

HS.6.2  
Vocabulary

HS.6.3  
Coastline Mapping

## Theme 3 — Changing Lifestyles (tentative lesson titles - pilot testing fall semester 2018)

### Unit 7: Infrastructure

HS.7.1 Ask  
an Expert

HS.7.2  
Vocabulary

HS.7.3  
Travel Then and Now

HS.7.4  
Coastal Erosion Impacts

### Unit 8: Subsistence

HS.8.1 Ask  
an Expert

HS.8.2  
Vocabulary

HS.8.3 Impacts on  
Subsistence Fishing

HS.8.4 Impacts on  
Subsistence Hunting

### Unit 9: Energy

HS.9.1 Ask  
an Expert

HS.9.2  
Vocabulary

HS.9.3 My Role  
in Climate Change

HS.9.4 Renewable  
vs. Nonrenewable Energy

HS.9.4  
Energy Transformation