



Life Science 7
Mrs. Duddles

**Q1 –Scientific Observations
& Ecosystems**

Friday 11/02

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

The texture of soil can be described as _____, _____, _____.

Agenda:

- o Review School Site Project Action Plan directions and rubric (15 min)
- o Brainstorm possible ideas for School Site Project using the data and observations you have made so far (40 min)

Thursday 11/01

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

What are the three characteristics that scientists use to describe soil?

Agenda:

- o Finish Soil Unit Lab Activity B: Describing Soil Scientifically
 - o Answer Analysis Questions (15 mins)
 - o Discuss & Review
 - o Write Conclusion

Wednesday 10/31

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

What is soil?

Agenda:

- o Work on Soil Unit Lab Activity B: Describing Soil Scientifically
 - o Read & follow directions in lab packet

Tuesday 10/30

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

As scientists, how should we make observations?

Agenda:

- o New Seats Q2
- o Finish work on Tree Assessment activity for School Site project
 - o Discuss & review the tree assessment chart data to determine the health of the trees on the school grounds
 - o Use your leaf sample & detailed drawing to identify the tree species using a guidebook
 - o Turn in detailed drawing of your leaf sample (include common & scientific name of species & info)

Monday 10/29

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

Describe the relationship between a tree and the soil it grows in.

Agenda:

- o Continue work on Tree Assessment activity for School Site project
 - o Determine the health of the trees on the school grounds
 - o Collect a leaf sample from your group's assigned tree
 - o Make a detailed drawing of your leaf sample (this will be collected for an assessment grade to assess your observational skills)
 - o Use your leaf sample & drawing to identify the tree species using a guidebook

Friday 10/26 – Half Day PM Session Only

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

Name the layers of soil.

Agenda:

- o Learn more about Seasonal Forest biome; watch BBC Planet Earth series: Seasonal Forests

Thursday 10/25

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species
- o Students will determine the health of the trees on the school grounds

White Space Question:

Is a tree a biotic or abiotic factor?

Agenda:

- o Finish work on Outdoor Space Assessment activity for School Site project
- o Start work on Tree Assessment activity for School Site project
 - o Determine the health of the trees on the school grounds

Wednesday 10/24

Objectives:

- o Students will practice observation and field study skills
- o Students will conduct an outdoor space assessment of the school grounds including identifying the different bird, mammals, and tree species

Agenda:

- o Math/ ELA Block Schedule today
- o No Science; Mrs. Duddles at Cranbrook Institute of Science with 8th grade class today

Tuesday 10/23

Objectives:

- Students will analyze data collected on the physical, biological and chemical conditions of a local stream in our watershed
- Students will identify and describe criteria used to determine the health of a waterway
- Students will practice observation and field study skills

White Space Question:

Explain how to find the mean, median, and mode for a data set.

Agenda:

- Continue work on analyzing the Stream Leaders data collected from the stream in Delia Park
 - Interpret the meaning of the overall data
 - Find the mean, median, and mode for quantitative data collected

Monday 10/22

Objectives:

- o Students will analyze data collected on the physical, biological and chemical conditions of a local stream in our watershed
- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

If we find a variety of group 1 and group 3 macroinvertebrates in a stream, what can we conclude about the quality of the water in the stream? Explain.

Agenda:

- o Start data analysis of Stream Leaders data collected from the stream in Delia Park

Friday 10/19

Objectives:

- o Students will practice reading and analyzing an informational text
- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

What does turbidity measure in the stream?

Agenda:

- o Complete Guided Reading assignment:
 - o Read article “Sniffing Out Cancer”
 - o Before you read, complete the first column of the Anticipation Guide
 - o As you read, complete the Anticipation Guide and Reading Guide; **due at end of class period**

Thursday 10/18

Objectives:

- o Students will conduct physical survey, biological collection, & chemical testing on a local stream which is a part of our watershed
- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

What does DO stand for? What does the DO level tell you about the health of a stream?

Agenda:

- o Stream Leaders trip to Delia Park today
- o Bring your coat, bottle of water, & any medication that you have. Leave backpacks, notebooks, books, & stuff you do not need in Butcher lockers. We will return to Butcher before dismissal.
- o Listen, participate, follow directions

Wednesday 10/17

Objectives:

- o Students will learn about birding and about the common bird species found in surrounding school area
- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

Which layer of soil contains the most biological activity?

Agenda:

- o Oakland Audubon Society Presentation and Birding Event with special guest speaker, Mr. David Frye
 - o Listen, participate, follow directions
- o **Reminder: Stream Leaders trip to Delia Park tomorrow; please check weather forecast & dress appropriately!**

Tuesday 10/16

Objectives:

- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

List the particles of weather rocks (sand, clay, silt) in order of increasing size.

Agenda:

- o Review group assignments for Oakland Audubon Society Birding Event and Stream Leaders program
- o Review data sheets for Stream Leaders program and Audubon Birding Event data sheets; choose data recorders
- o Study macroinvertebrates cards to familiarize yourself with stream inhabitants that we will be collecting
- o Research one of the Warren neighborhood birds using the bird field guides. Make a detailed drawing of the bird

Monday 10/15

Objectives:

- Students will learn about the composition of soil
- Students will identify and describe criteria used to determine the health of a waterway
- Students will practice observation and field study skills

White Space Question:

What is soil?

Agenda:

- Discuss and review Soil Unit Lab Activity A: Soil Composition
- Organize groups for Oakland Audubon Society Birding Event and Stream Leaders program
- Review data sheets for Stream Leaders program and Audubon Birding Event data sheets (if time)

Friday 10/12 – Half Day AM Session Only

Objectives:

- o Students will learn about the composition of soil
- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

Give 3 reasons why it is important to monitor our waterways, especially in MI.

Agenda:

- o Finish Soil Unit Lab Activity A: Soil Composition (15 mins)
 - o Answer Analysis Questions
- o Learn more about Seasonal Forests biome; watch BBC Planet Earth series: Seasonal Forests

Thursday 10/11

Objectives:

- o Students will learn about the composition of soil
- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills

White Space Question:

What type of water holds more oxygen?

Agenda:

- o Start work on Soil Unit Lab Activity A: Soil Composition
 - o Read & Answer the Stopping to Think questions as you read
 - o PM classes finish for HW; due Monday 10/15

Wednesday 10/10

Objectives:

- Students will identify and describe criteria used to determine the health of a waterway
- Students will practice observation and field study skills
- Students will analyze the parts of an environment

White Space Question:

How are macroinvertebrates categorized?

Agenda:

- Discuss and Review Watershed Monitoring Lab Activity: Urban Waterway Checkup
- Study macroinvertebrate cards to prepare for Stream Leaders biological collection station (bug id)
- **MSVPA students: Get work for Thursday class & check webpage for homework**

Tuesday 10/09

Objectives:

- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

What water temperature levels do most aquatic organisms like?

Agenda:

- o Turn in your CRWC Stream Leaders permission slip? LATE
- o Finish work on Watershed Monitoring Lab Activity: Urban Waterway Checkup
 - o Read and follow Procedure steps 3 & 4 in student lab handout.

Monday 10/08

Objectives:

- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

Describe the kind of water a healthy waterway should have.

Agenda:

- o Turn in your CRWC Stream Leaders permission slip? LATE
- o Continue work on Watershed Monitoring Lab Activity: Urban Waterway Checkup
 - o Create a map of Somewhere Creek; put in details and color your map!

Friday 10/05

Objectives:

- o Students will identify and describe criteria used to determine the health of a waterway
- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

Why are macroinvertebrates used in water quality monitoring?

Agenda:

- o Have you turned in your CRWC Stream Leaders permission slip?
This is a week late.
- o Continue work on Watershed Monitoring Lab Activity: Urban Waterway Checkup
 - o Create a map of Somewhere Creek

Thursday 10/04

Objectives:

- o Students will recognize various stages of aquatic animals and learn that some species change greatly from one stage to another
- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

Define the term *benthic macroinvertebrate*.

Agenda:

- o **Have you turned in your CRWC Stream Leaders permission slip?**
- o Discuss and review Lab Activity: Are You Me? Turn in student lab handout for grading
- o Start Watershed Monitoring Lab Activity: Urban Waterway Checkup
 - o Read the article *The Life and Times of Somewhere Creek*

Wednesday 10/03

Objectives:

- o Students will recognize various stages of aquatic animals and learn that some species change greatly from one stage to another
- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

Is soil a biotic factor or an abiotic factor?

Agenda:

- o **Have you turned in your CRWC Stream Leaders permission slip?**
- o Work on Lab Activity: Are You Me? To prepare for Stream Leaders program participation

Tuesday 10/02

Objectives:

- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

Explain the difference between invasive species and non-native species.

Agenda:

- o NWEA Language Test; shortened class period
- o Have you turned in your CRWC Stream Leaders permission slip?
- o Collect soil samples from school yard for study & testing (weather permitting)

Monday 10/01

Objectives:

- o Students will practice observation and field study skills
- o Students will analyze the parts of an environment

White Space Question:

Is soil a permeable (pervious) surface or impermeable (impervious) surface?

Agenda:

- o Turn in CRWC Stream Leaders permission slips if you have not done so
- o Continue work on Outdoor Space Assessment activity for School Site project; compare data collected with group members
- o Learn how to collect soil samples from school yard for study & testing

Friday 09/28

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

Define the term species.

Agenda: Modified schedule for Jog-A-Thon

- o **Turn in CRWC Stream Leaders permission slips due today**
- o Learn more about stream monitoring to support participation in CRWC Stream Leaders Program; watch video “Riverwatch: Macroinvertebrate Sampling”
- o What are invasive species? Learn the basics about invasive species; watch videos from the DEQ (Department of Environmental Quality)

Thursday 09/27

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

Explain how animals interact with abiotic factors to meet the basic need of food.

Agenda:

- o Turn in CRWC Stream Leaders permission slips due Friday
- o Review Conclusion writing exemplars (15 mins)
- o Start School Site Investigation project with Outdoor Space Assessment activity

Reminder: CRWC Stream Leaders permission slips due tomorrow

Wednesday 09/26

Objectives:

- Students will analyze the parts of an environment
- Students will practice observation skills
- Students will practice lab safety

White Space Question:

Explain the difference between a niche and a habitat.

Agenda:

- Turn in CRWC Stream Leaders permission slips due Friday
- Take Activity 2 “Introduction to Ecology” quiz; turn in quiz when completed
- Introduce School Site Investigation project; determine project groups
- Review Conclusion writing exemplars (if time)

Reminder: Share informational letter about School Site Investigation project with parents

Tuesday 09/25

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

List three facts you know about the Great Lakes.

Agenda:

- o Special guest speaker from Clinton River Watershed Council, Ms. Sexton
- o Review 7th grade class participation in CRWC Stream Leaders program 10/18; permission slips due Friday 09/28

Reminder: Study for Quiz on Activity 2 “Introduction to Ecology”

Monday 09/24

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

Agenda:

- o NWEA 7th Grade Math Test today – no Science class
- o When done with test, you may come to Science class:
 - o to read independent reading book
 - o to work on missing Science work
 - o to study for Introduction to Ecology quiz

Friday 09/21 – Half Day PM Session Only

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

Would a group of alligators that live at a particular wildlife refuge be considered a population or a community?

Agenda:

- o Learn more about the desert biome; watch BBC documentary series Planet Earth Desert episode

Reminder: Quiz on Activity 2 “Introduction to Ecology” next Wednesday 09/26

Thursday 09/20

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

How does a species differ from a population?

Agenda:

- o Finish discussion & review for Activity 2 “Introduction to Ecology” guided reading in *Ecology and the Environment* book
- o Write Conclusion; this will be graded as an assessment

Notice: Quiz on Activity 2 “Introduction to Ecology” next Wednesday 09/26

Wednesday 09/19

Objectives:

- Students will analyze the parts of an environment
- Students will practice observation skills
- Students will practice lab safety

White Space Question:

Give an example of a biotic factor in an ecosystem interacting with an abiotic factor.

Agenda:

- Discuss and review Lab Activity 2: Which Abiotic and Biotic Factors Are Found in an Ecosystem?
 - Turn in activity handout with ecosystem drawing
- Discuss and review Activity 2 “Introduction to Ecology” guided reading in *Ecology and the Environment* book

Tuesday 09/18

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

Agenda:

- o NWEA 7th Grade Reading Test today – no Science class
- o When done with test, you may come to Science class to finish assigned work (Activity 2 & Lab Activity 2)

Monday 09/17

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

Name three biotic and three abiotic factors.

Agenda:

- o Finish work on Activity 2 “Introduction to Ecology” guided reading in *Ecology and the Environment* book; everything except for Conclusion
- o Start Lab Activity 2: Which Abiotic and Biotic Factors Are Found in an Ecosystem?

HW: Finish Activity 2 except for Conclusion if not done in class

Friday 09/14

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

What should you do if you do not know the directions for a lab activity?

Agenda:

- o Continue work on Activity 2 “Introduction to Ecology” guided reading in *Ecology and the Environment* book
 - o Read pgs 4 – 17 in Ecology & the Environment book
 - o Answer questions 1 – 3, 5 – 11, 13 – 18
 - o Do Lesson Review on pg 15, questions 1 - 10

Thursday 09/13

Objectives:

- o Students will analyze the parts of an environment
- o Students will practice observation skills
- o Students will practice lab safety

White Space Question:

List the things that all living things need to survive.

Agenda:

- o Review how to access online Science Fusion books from Think Central website
- o Start Activity 2 “Introduction to Ecology” guided reading in *Ecology and the Environment* book

Wednesday 09/12

Objectives:

- o Students will practice observation skills
- o Students will practice lab safety
- o Students will practice keeping a Science Notebook
- o Students will practice CHAMPS classroom behavior

White Space Question:

What is the main difference between metals and nonmetals?

Agenda:

- o Discuss & review “Titanic: Was It Doomed by Chemistry?” reading
- o Use sweep nets to collect invertebrates; observe & draw specimen using stereoscopes; try to identify specimen

Tuesday 09/11

Objectives:

- o Students will practice lab safety
- o Students will know how to keep a Science Notebook
- o Students will practice CHAMPS classroom behavior

White Space Question:

What is the most important thing during lab experiments?

Agenda:

- o Finish reading article “Titanic: Was It Doomed by Chemistry?”; Complete the Anticipation Guide and Reading Guide
- o Learn how to use sweep nets to collect invertebrates & determine biodiversity in different areas of school yard

Monday 09/10

Objectives:

- o Students will practice lab safety
- o Students will know how to keep a Science Notebook
- o Students will practice CHAMPS classroom behavior

White Space Question:

How do we make observations in Science class?

Agenda:

- o Read article “Titanic: Was It Doomed by Chemistry?”
- o Before you read, complete the first column of the Anticipation Guide
- o As you read, complete the Anticipation Guide and Reading Guide

Friday 09/07

Objectives:

- o Students will learn & practice lab safety
- o Students will know how to keep a Science Notebook
- o Students will practice CHAMPS classroom behavior

White Space Question:

What materials should you bring to Science class everyday?

Agenda:

- o Turn in completed Syllabus Signature page due today
- o Take Lab Safety quiz; turn in quiz when completed
- o Read for remainder of class period or watch “Fresh Water” episode from BBC: Plant Earth documentary series
- o Practice CHAMPS classroom behavior

Thursday 09/06

Objectives:

- o Students will learn & practice lab safety
- o Students will review how to keep a Science Notebook
- o Students will review CHAMPS classroom behavior

White Space Question:

List 3 ways you practice lab safety.

Agenda:

- o Turn in completed Syllabus Signature page
- o Complete Lab Safety demo & activities; Quiz Friday
- o Review how to keep a Science Notebook & Practice CHAMPS classroom behavior
- o Have summer work Science Journal ready for Mrs. Duddles to check next Tuesday

HW Reminder: Syllabus Signature page due Friday

Wednesday 09/05

Objectives:

- o Students will review CHAMPS classroom behavior & syllabus course expectations

Agenda:

- o Seating Chart
- o Conduct classroom housekeeping procedures: materials, syllabus, CHAMPS class expectations
- o Distribute Science Notebooks

HW:

- o Review course syllabus with parents/guardians & turn in signature page to Mrs. Duddles by this Friday
- o Bring summer work Science Journal tomorrow

Tuesday 09/04

Half Day – Home Schools Only

Monday 09/03

**WCS District – No School
Labor Day Observance**