



# **Life Science 7**

## **Mrs. Duddles**

**Q1 – Rock Cycle &  
Ecosystems**

# Friday 10/27 – Half Day PM Only

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

How might carnivores be affected if the main plant species in a community were to disappear?

## Agenda:

- o Continue work on initial analysis of Stream Leaders data; compile data from all 6 groups and determine mean, median, and mode values



# Thursday 10/26

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Define the following terms: mean, median, and mode.

## Agenda: No Power Hour today

- o Conduct initial analysis of Stream Leaders data; compile data for all 6 groups and determine mean, median, and mode values
- o Finish Activity 3 “Roles in Energy Transfer” (if you didn’t do it for homework; due Friday)

# Wednesday 10/25

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

What does turbidity measure?

## Agenda:

- o Take an up-close look at macroinvertebrate samples from Stream Leaders collection at Delia Park
- o Finish Activity 3 “Roles in Energy Transfer”:
  - o Do Lesson Review on page 29 (#1 – 11)
  - o Complete Vocabulary
  - o Answer Analysis Questions
  - o Finish Activity 3 for homework if not completed in class



# Tuesday 10/24

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

If the water in a stream ecosystem has a pH 2, lots of suspended sediments, > 20° C temperature, and low level of dissolved oxygen, can most organisms live in that stream?

## Agenda:

### Continue School Site Investigation Project work:

- o Take attendance
- o Get into project groups; review group letter assignment (ABCDEF)
- o Go to Delia Park for Stream Leaders program

# Monday 10/23

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

**What are benthic macroinvertebrates? Why are they bio-indicators?**

## Agenda:

### Continue School Site Investigation Project work:

- o Assign Stream Leaders group letters (ABCDEF) so that you know which side of the stream you will be working on Tuesday 10/24 when we go to Delia Park (don't forget to dress for working outside)
- o Assign data recorders for Stream Leaders
- o Learn how to use sweep nets to help determine the insect biodiversity at our school site



# Friday 10/20

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

A consumer that eats only grasses and fruits is classified as \_\_\_\_\_.

Agenda: short class period for Power Hour

- o Continue School Site Investigation Project work:
  - o Prep work for Clinton River Watershed Stream Leaders program
  - o Learn how to use sweep nets to help determine the insect biodiversity at our school site

HW: Review Macroinvertebrate pdf file on Mrs. Duddles' web page to help you identify the different species of macroinvertebrates

# Thursday 10/19

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Name the three types of consumers.

## Agenda:

- o Continue School Site Investigation Project work:
  - o Prep work for Clinton River Watershed Stream Leaders program
  - o Learn how to use sweep nets to help determine the insect biodiversity at our school site



# Wednesday 10/18

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

What is the niche of a decomposer in the environment?

## Agenda:

- o Cranbrook field trip permission slips; last day today
- o Continue School Site Investigation Project work:
  - o Prep work for Clinton River Watershed Stream Leaders program
  - o Learn how to use sweep nets to help determine the insect biodiversity at our school site

# Tuesday 10/17

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

How does a producer get energy? How is this different from a consumer?

## Agenda:

- o Collect Cranbrook field trip permission slips; last day today
- o Continue School Site Investigation Project work:
  - o Compile tree assessment data
  - o Turn in sketch of the sample leaves from your trees with identification completed
  - o Learn how to use sweep nets to help determine the insect biodiversity at our school site



# Monday 10/16

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Identify some biotic and abiotic factors found in the Field of Dreams.

## Agenda:

- o Collect Cranbrook field trip permission slips; due today
- o Continue School Site Investigation Project work:
  - o Complete Tree Health Chart
  - o Identify trees by their leaves
  - o Learn how to use sweep nets to help determine the insect biodiversity at our school site

# Friday 10/13 – Half Day AM Only

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

What are the main sources of pollution affecting the health of our watershed?

## Agenda:

- o Collect Cranbrook field trip permission slips; due 10/16
- o Continue School Site Investigation Project work:
  - o Finish sketch of leaf samples from your tree
  - o Share, compare, and consolidate your notes on the Clinton River Watershed presentation from last Thursday 10/05



# Thursday 10/12

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

How can human activity accelerate Earth processes? Give an example.

## Agenda:

- o Collect Cranbrook field trip permission slips; due 10/16
- o Continue School Site Investigation Project work:
  - o Conduct assessment of trees on our school site (determine the type of tree and health of the trees)
  - o Complete Tree Health Chart
  - o Identify the type of tree by its leaves

# Wednesday 10/11

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Why is weathering important to the process of erosion?

## Agenda:

- o School Site Investigation Project group status review (Are you on target?)
- o Copy Activity 3 “Roles in Energy Transfer” set up in to Science Notebook
- o Collect Cranbrook field trip permission slips; due 10/16



# Tuesday 10/10

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Explain the difference between destructive and constructive processes.

## Agenda:

- o Distribute Cranbrook Institute of Science permission forms; due Monday 10/16
- o Finish Activity 2A “Weathering, Erosion, and Deposition” (25 mins)
- o Discuss and Review Activity 2A; Turn in SS 29.1 for grading
- o School Site Investigation Project group status review (Are you on target?)

# Monday 10/09

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

How is the rock cycle related to the formation of soil?

## Agenda:

- o Turn fact sheet/field guide for your local bird species if you did not do so on Friday
- o Discuss and Review Conclusion Writing Rubric (15 min)
- o Start Activity 2A “Weathering, Erosion, and Deposition”



# Friday 10/06

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

What watershed do you live in?

## Agenda:

- o Have you turned in the permission form for Stream Leaders trip?
- o Finish fact sheet/field guide for your local bird species; turn in for grading
- o Copy Activity 2A “Weathering, Erosion, and Deposition” set up in to Science notebook

**HW: Finish copying Activity 2A in to Science notebook**

# Thursday 10/05

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

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

## Agenda:

- o Take attendance
- o Get into School Site Investigation Project groups for presentation on the Clinton River Watershed with Ms. Abby Lane
- o Listen, participate, and take notes in Science notebook



# Wednesday 10/04

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

What is the main difference between the ecosystem and community level?

## Agenda:

- o Take attendance
- o Get into School Site Investigation Project groups for Oakland Audubon Society Presentation & Birding Event with Mr. David Frye
- o Listen and participate

# Tuesday 10/03

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

What are the levels of organization in the environment?

## Agenda:

- o Have you turned in the permission form for Stream Leaders trip?
- o Turn in Activity 2 "Introduction to Ecology" Conclusion for grading
- o Prep for Birding Event with Audubon Society 10/04
- o Create a fact sheet/field guide for one of the local bird species



# Monday 10/02

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Give two examples of a biotic factor.

Agenda: (shorten class period for NWEA Language testing)

- o Have you turned in Stream Leaders Program field trip permission form?
- o Finish discussion and review for Activity 2 “Introduction to Ecology”
  - o Please check your answers and make corrections
- o Prep for Birding Event with Audubon Society 10/04 if time

HW: Write Conclusion for Activity 2 “Introduction to Ecology” on a separate sheet of paper

# Friday 09/29

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Define biotic factor.

## Agenda: (Shorten class for Butcher Jog-A-Thon)

- o Collect Stream Leaders Program field trip permission form; due today
- o Finish Activity 2 “Introduction to Ecology” (30 mins)
- o Start discussion and review for Activity 2
  - o Please check your answers and make corrections

**HW: Finish Activity 2 work including Analysis Questions**



# Thursday 09/28

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

**Define abiotic factor.**

## Agenda: (short class for Power Hour)

- o Collect Stream Leaders Program field trip permission form; due tomorrow
- o Continue working on Activity 2 “Introduction to Ecology”
  - o Do Lesson Review on page 15, questions 1 – 10
  - o Complete Vocabulary
  - o Answer Analysis Questions
- o Science Notebook check today

# Wednesday 09/27

## Objectives:

- o Students will analyze the parts of an environment
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Define the term native species.

## Agenda:

- o Collect Stream Leaders Program field trip permission form; due Friday 09/29
- o Copy Activity 2 “Introduction to Ecology” set up in to Science notebook
- o Start Activity 2
  - o Read pages 4 – 17 in Ecology and the Environment book
  - o Answer questions 1 – 3, 5 – 11, 13 – 18
- o Science Notebook check on Thursday



# Tuesday 09/26

## Objectives:

- o Students will observe and record the plant and wildlife species around the school, as well as natural habitats
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

How is an invasive species different from a non-native species?

## Agenda:

- o Shorten Science/ ELA classes today for NWEA Math testing with Mr. Carron (AM classes only 30 mins)
- o No Science class for PM classes (report for NWEA Math & ELA testing)
- o Collect Stream Leaders Program field trip permission form; due Friday 09/29
- o Discuss the differences among native, non-native, and invasive species with video about invasive species in the Great Lakes (AM classes)

# Monday 09/25

## Objectives:

- o Students will observe and record the plant and wildlife species around the school, as well as natural habitats
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

How is an impervious surface different from a pervious surface?

## Agenda:

- o Distribute Stream Leaders Program field trip notice & permission slip; due Friday 09/29
- o Review Outdoor Space Assessment survey of Butcher Educational Center (AM classes)
- o Discuss the differences among native, non-native, and invasive species with video about invasive species in the Great Lakes (PM classes)
- o Distribute student user id and passwords for Think Central access
- o Review how to access online resources for 7<sup>th</sup> grade texts



## **Friday 09/21 – Half Day PM Only**

- o ELA/Math Block today for 7<sup>th</sup> Grade classes**
- o 7<sup>th</sup> Grade Science class not in session today**

# Thursday 09/20

## Objectives:

- o Students will observe and record the plant and wildlife species around the school, as well as natural habitats
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

Name one sign of wildlife that you observed on our school site on Tuesday.

Agenda: (short class period for Power Hour today)

- o Work on Butcher School Site Investigation project:
  - o Finish Outdoor Space Assessment of Butcher Educational Center
  - o Start Day 2 of data collection for Plant and Animal Observations chart



# Wednesday 09/20

## Agenda:

- NWEA ELA testing today; No Science and Math classes today – AM Session
- Shorten Science class – PM Session
- Finish Outdoor Space Assessment of Butcher Educational Center survey

# Tuesday 09/19

## Objectives:

- o Students will observe and record the plant and wildlife species around the school, as well as natural habitats
- o Students will investigate the presence, health, and benefits of trees
- o Students will assess the biodiversity of surrounding area

## White Space Question:

When working in a group, what skills could be useful to you?

Agenda: (extended time for Science class today)

- o Make up Rock Cycle quiz for any absent students
- o Work on Butcher School Site Investigation project:
  - o Conduct Outdoor Space Assessment of Butcher Educational Center
  - o Begin data collection for Plant and Animal Observations chart



# Monday 09/18

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

Where do rocks come from?

## Agenda:

- o Choose groups for Butcher School Site Investigation Project (10 mins)
- o Review notes/resources for Rock Cycle quiz (5 mins)
- o Take Rock Cycle quiz
- o Turn in Rock Cycle quiz when completed; Read for remainder of class

# Quiz/ Test Procedures

- o No talking during quiz/test time
- o Bring an independent reading book
- o Turn in quiz/test when complete and read silently for remainder of class period



# Friday 09/15

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

How can a sedimentary rock become a metamorphic rock?

## Agenda:

- o Complete Crayon Rock Cycle lab
- o Read & follow directions in the activity handout to complete the lab
- o Prepare for Rock Cycle quiz Monday 09/18

HW: Study for Rock Cycle Quiz Monday 09/18 (Find study resources on Mrs. Duddles' class webpage and in your Science notebook)

# Thursday 09/14

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

How does a metamorphic rock become an igneous rock?

## Agenda:

- o Short class period for Power Hour
- o Review Michigan Rock Cycle notes as a class to prepare for Rock Cycle quiz next Monday

HW: Finish reading & reviewing Michigan Rock Cycle notes PowerPoint (the file is on Mrs. Duddles' class webpage)



# Wednesday 09/13

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

How does an igneous rock become a sedimentary rock?

## Agenda:

- o Finish Activity 1 “The Rock Cycle Game” (25 mins)
  - o Answer Analysis Questions, Complete Vocabulary, Write Conclusion
- o Discuss and Review Activity 1 (25 mins)
- o Turn in SS 22.1 and diagram for AQ #6 for grading

# Tuesday 09/12

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

What evidence do geologists have that the Earth is made up of different layers?

## Agenda:

- o Start Activity 1 “The Rock Cycle Game”
  - o Read, listen, and follow directions to complete lab activity



# Monday 09/11

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

Name the three types of volcanic mountains. Describe how each are formed.

## Agenda:

- o Finish discussion for summer work packet #2 Activity 38 “Beneath the Earth’s Surface”
- o Turn in Activity 38 scaled drawing for grading
- o Copy Activity 1 “The Rock Cycle Game” set up in to Science notebook

# Friday 09/08

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## White Space Question:

What did you do or experience for the first time this summer?

## Agenda:

- o Collect class syllabus signature page due today
- o Read and sign Lab Safety student contract; attach to Science notebook
- o Discuss and review summer work packet #2 Activity 38 "Beneath the Earth's Surface"



# Thursday 09/07

## Objectives:

- o Students will understand that the earth is made up of different layers
- o Students will understand the Rock Cycle and how to classify types of rocks
- o Students will understand how to behave responsibly & safely in the lab

## Agenda:

- o Short class periods for Power Hour
- o Collect class syllabus signature page (due by Friday) & summer work
- o Discuss & review CHAMPS classroom expectations & how to be safe & responsible in the lab
- o Distribute Science notebooks

## HW:

- o Review course syllabus with parents/guardians & turn in signature page to Mrs. Duddles by tomorrow
- o Bring summer work packet Activity 38 to class tomorrow

# Wednesday 09/06

## Objectives:

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

## Agenda:

- o Collect summer work assignments:
  - o Rock Collection
  - o Rock Cycle Diagram
  - o Hold on to Activity 38 “Beneath the Earth’s Surface”
- o Conduct classroom housekeeping procedures: materials, syllabus, class expectations
- o Lockers (4<sup>th</sup> hour class only)

## HW:

- o Review course syllabus with parents/guardians & turn in signature page to Mrs. Duddles by this Friday





Wednesday 09/06

Welcome Back to Butcher!

Welcome to Life Science 7!

Tuesday 09/05

**o 1½ Day – Home Schools Only**



Monday 09/04

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