



Life Science 7

Mrs. Duddles

**Q1 – Rock Cycle, Soil &
Ecosystems**

Friday 10/28 – ½ Day PM Only

Objectives:

- Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- Students will understand the process of water quality monitoring

White Space Question:

What are the major components of soil?

Agenda:

- Finish Activity 6 “Introduction to Ecology / Roles in Energy Transfer” work:
 - Answer Analysis Questions, Define Vocabulary, Write Conclusion
 - **Finish Activity 6 for HW; Due Monday 10/31**
- Read silently for remainder of class if all Science work is complete

Thursday 10/27

Objectives:

- o Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- o Students will understand the process of water quality monitoring

White Space Question:

How are Group 1 macroinvertebrates different from Group 3 macroinvertebrates?

Agenda:

- o Continue work on Activity 6 or Read silently until dismissed for Stream Leaders Program
- o Stream Leaders Program monitoring today:
 - o Remember your group assignments (Groups 1 – 3 ride Bus 1 & Groups 4 – 6 ride Bus 2)
 - o Remember to bring only what you need for Stream Leaders (water bottle, jacket, bug spray) & leave everything else in lockers

Wednesday 10/26

Objectives:

- Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- Students will understand the process of water quality monitoring

White Space Question:

Give 3 reasons why macroinvertebrates are indicators of water quality.

Agenda:

- Continue work on Activity 6 “Introduction to Ecology/Roles in Energy Transfer”
 - Do assigned book questions, Analysis Questions & Vocabulary (see Act. 6 set up)
 - Science Notebook check (Activities #1 – 5) if you were absent Tuesday 10/25
- Continue to prepare for Stream Leaders Program monitoring:
 - Assign data reader and recorder for groups 1 - 6
 - Dress appropriately for the weather & working outdoors tomorrow

Tuesday 10/25

Objectives:

- o Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- o Students will understand the process of water quality monitoring

White Space Question:

What is a benthic macroinvertebrate?

Agenda:

- o Start work on Activity 6 “Introduction to Ecology/Roles in Energy Transfer”
- o Read pages 4 – 27 in *Ecology and the Environment* book
- o Do assigned book questions (see Act. 6 set up)
- o Science Notebook check (Activities #1 – 5)
- o Continue to prepare for Stream Leaders Program monitoring:
 - o Examine data sheets for the 3 different Stream Leaders monitoring stations
 - o Listen & make note of your group assignment for Thursday

Monday 10/24

Objectives:

- Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- Students will understand the process of water quality monitoring

White Space Question:

What is a watershed? What watershed do we live in?

Agenda:

- Copy Activity 6 “Introduction to Ecology/Roles in Energy Transfer” set up in to Science Notebook
- Continue to prepare for Stream Leaders Program monitoring activities:
 - Learn to identify and categorize different groups of macroinvertebrates by reviewing “Macroinvertebrate” pdf file on Mrs. Duddles’ web page; **finish for HW if not done in class**

Friday 10/21

Objectives:

- o Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- o Students will understand the process of water quality monitoring
- o Earth materials moved by erosion are deposited elsewhere

White Space Question:

Why do we monitor streams?

Agenda:

- o Discuss and Review “Stream Leaders Basic Training” notes
- o Why do we monitor streams?
- o What is a watershed? What watershed do we live in?
- o What will we be doing at Joseph Delia Park on Thursday 10/27?

Thursday 10/20

Objectives:

- o Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- o Students will understand the process of water quality monitoring
- o Earth materials moved by erosion are deposited elsewhere.

White Space Question:

When should you take notes?

Agenda:

- o Collect Activity 5 handout & concept map (1st & 4th Periods)
- o Discuss and Review Conclusion Writing Rubric
- o Discuss Cornell Note-Taking process
- o Complete Cornell Notes for “Stream Leaders Basic Training”

HW: Finish making Cornell Notes for Stream Leaders Basic Training

Wednesday 10/19

Objectives:

- o Students will learn about macroinvertebrates and how they are used as bio-indicators of stream health
- o Students will understand the process of water quality monitoring
- o Earth materials moved by erosion are deposited elsewhere.

White Space Question:

How can deposited sediments be harmful? How can deposited sediments be helpful?

Agenda:

- o Discuss & review Activity 5 “Weathering, Erosion, and Deposition” lab
- o Distribute Conclusion Writing Rubric & Cornell Note-Taking System handouts
- o Discuss & Review handout if time

Tuesday 10/18

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.
- o Earth materials moved by erosion are deposited elsewhere.

White Space Question:

How can you add missing nutrients to soil?

Agenda:

- o Do Activity 5 “Weathering, Erosion, and Deposition” guided reading lab activity
- o Read and follow directions in lab packet

Monday 10/17

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

What does the term consistence describe about soil?

Agenda:

- o Study for “Soil” assessment (5 mins)
- o Take “Soil” assessment
- o Turn in assessment paper to Mrs. Duddles when done
- o Read for remainder of class period

Friday 10/14 – ½ Day AM Only

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

What are some causes of the Dust Bowl during the 1930s in the Great Plains of the US?

Agenda:

- o Discuss & review article “When the Dust Settled”
- o Watch 3 min video interview with Ken Burns on “The Dust Bowl”
- o Study for “Soil” assessment

HW: Study for “Soil” assessment Monday 10/17

Thursday 10/13

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

Soil is found in layers. Name the layers of soil.

Agenda:

- o Read article “When the Dust Settled” to learn about the Dust Bowl and the importance of soil
- o Follow directions in packet to complete assignment
- o Video interview with Ken Burns

HW: Study for “Soil” assessment Monday 10/17

Life Science 7 “Soil” Unit Study Guide

- Review Concept Maps created for Activities 1, 2, & 4.
- Be familiar with & understand the relationships among vocabulary terms found in Activities 1 – 4. (weathering, weathered rocks, organic matter, nutrients, sand, silt, clay, decompose, composition, layers, bedrock, topsoil, subsoil, parent material, color, consistence, texture, etc.)
- Think about what you did in Activities 1 – 4 in lab. Know what you did and why you did it.
- Review Analysis Questions for Activities 1 – 4 & all White Space Questions.

Wednesday 10/12

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

How does organic matter become nutrients found in soil?

Agenda:

- o Stream Leaders Program signed permission forms?
- o Discuss & review Activity 4 “Nutrients in Soil” lab activity
- o Review Study Guide for “Soil” assessment

HW: Study for “Soil” assessment Monday 10/17

Tuesday 10/11

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

Name three important nutrients found in soil.

Agenda:

- o Turn in Stream Leaders Program signed permission forms due today; absolute last day
- o Finish Activity 4 “Nutrients in Soil” lab activity
- o Do Part B & Answer Analysis Questions #1 – 5 in lab packet

Notice: “Soil” assessment moved to Monday 10/17

Monday 10/10

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

What category of soil does MI soil belong to?

Agenda:

- o Turn in Stream Leaders Program signed permission forms due today; last day
- o Copy Activity 4 “Nutrients in Soil” set up in to Science Notebook
- o Do Activity 4 Part A: Procedure Steps 1 – 10 in blue lab packet

Notice: Be ready for a quiz on “Soil” this Wednesday/Thursday

Friday 10/07

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

What are the four categories of soils found in the US?

Agenda:

- o Turn in Stream Leaders Program signed permission forms due today
- o Discuss & review Activity 3 “Mapping Soils” lab
- o Collect soil sample from school yard at Butcher for future soil study & Science Fair experiment

Notice: Be ready for a quiz on “Soil” next Wednesday/Thursday

Thursday 10/06

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

How can the consistence of soil be described?

Agenda:

- o Turn in Stream Leaders Program signed permission forms due Friday 10/07
- o Finish Activity 3 “Mapping Soils” jigsaw activity

Wednesday 10/05

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

How can the texture of soil be described?

Agenda:

- o Turn in Stream Leaders Program signed permission forms due Friday 10/07
- o Start Activity 3 “Mapping Soils” jigsaw activity

Tuesday 10/04

Objectives:

- Students will describe soil scientifically using the color, consistence, and texture of soil.
- Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

Agenda:

- Turn in Stream Leaders Program signed permission forms due Friday 10/07
- Listen & take notes on presentation “Toss or Turn?” by special guest speaker Ms. Czapski from Rizzo Environmental Services

Monday 10/03

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

Name three characteristics of soil that scientists use to describe soil.

Agenda:

- o Stream Leaders Program field trip to Joseph Delia Park; permission forms due Friday 10/07
- o Discuss and review Activity 2 “Describing Soil Scientifically” lab activity
- o Copy Activity 3 “Mapping Soils” set up in to Science Notebook

Friday 09/30

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

List the particles found in soil in order of increasing size: sand, gravel, clay, silt

Agenda:

- o Do Activity 2 “Describing Soil Scientifically” lab activity
- o Read and follow directions in lab packet; record data
- o Answer Analysis Questions #1 – 4

HW: Write Conclusion for Activity 2 “Describing Soil Scientifically”

Thursday 09/29

Objectives:

- Students will describe soil scientifically using the color, consistence, and texture of soil.
- Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

White Space Question:

Make a list of 10 words that are related or can be used in a discussion about soil.

Agenda:

- Make Soil Concept Map using information learned in Act. 1
- Copy Activity 2 “Describing Soil Scientifically” set up in to Science Notebook
- Read Activity 2 lab packet to understand what you will be doing in lab; fill in Vocabulary

Wednesday 09/28

Objectives:

- Students will describe soil scientifically using the color, consistence, and texture of soil.
- Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

Agenda:

- Discuss & review Activity 1 “Soil Composition” guided reading lab
- Turn in Activity 1 “Soil Composition” lab sheet for a grade
- Distribute Science Notebook
- Discuss Science Notebook set up and the proper way to keep a science notebook

Tuesday 09/27

Objectives:

- o Students will describe soil scientifically using the color, consistence, and texture of soil.
- o Students will observe that soil is found in layers and consists of weathered rocks & decomposed organic matter.

Agenda:

- o Complete Activity 1 “Soil Composition” guided reading lab
- o Read and complete lab activity hand-out
- o Choose Table Captains & review the important role of the Table Captain

Monday 09/26

Objectives:

- o Students will understand the Rock Cycle & how to classify types of rocks

Agenda:

- o Study for Rock Cycle quiz (10 mins)
- o Take Rock Cycle quiz
- o Turn in quiz to Mrs. Duddles when complete
- o Read silently for remainder of class

Friday 09/23 – ½ Day PM Only

Objectives:

- o Students will understand the Rock Cycle & how to classify types of rocks**

Agenda:

- o Discuss & review Crayon Rock Cycle Lab activity**
- o Study for Rock Cycle quiz or Read for remainder of class period**

**HW: Prepare for Rock Cycle quiz on Monday
09/26**

Thursday 09/22

Objectives:

- o Students will understand the Rock Cycle & how to classify types of rocks

Agenda:

- o Compare your Rock Cycle notes to other students' notes at your table
- o Compare your group Rock Cycle diagram from Tuesday's class to the notes; Was your group's diagram complete? Did you include the major parts of the Rock Cycle in your diagram?
- o Do Crayon Rock Cycle Lab activity
 - o Read & follow directions in handout

HW: Prepare for Rock Cycle quiz on Monday 09/26

Wednesday 09/21

Objectives:

- o Students will understand the Rock Cycle & how to classify types of rocks

Agenda:

- o Read & take 1 full sheet (double-sided) of notes on Michigan Rock Cycle PP file
- o Compare your notes to other students' notes at your table
- o Compare your group Rock Cycle diagram from Tuesday's class to the notes: Was your group's diagram complete? Did you include the major parts of the Rock Cycle in your diagram?
- o How well do you know the Rock Cycle?
- o **Finish notes for HW if not done in class**

Tuesday 09/20

Objectives:

- Students will understand the Rock Cycle and how to classify types of rocks

Agenda:

- Finish Rock Collection & Rock Cycle Group Presentations
- Rock Cycle diagram review activity; Listen for & follow the teacher's directions

Monday 09/19

Objectives:

- **Students will understand the Rock Cycle and how to classify types of rocks**

Agenda:

- **Present Rock Collection & Rock Cycle Project**
- **Submit Rock Collection and Rock Cycle Project Presentation rubric with group member names to Mrs. Duddles before your group presents**

Friday 09/16

Objectives:

- Students will understand the Rock Cycle and how to classify types of rocks

Agenda:

- Last day to work on Rock Collection & Rock Cycle Project:

- Finish rock collection display and group presentation
- Rehearse and edit presentation; remember you have a time limit of 3 – 5 mins
- Remember to reference project handout to make sure you have included all required components
- Be ready to present your project to the class on Monday 09/19

Thursday 09/15

Objectives:

- Students will understand the Rock Cycle and how to classify types of rocks

Agenda:

- Continue work on Rock Collection & Rock Cycle Project:
 - Classification & identification of rocks should be complete
 - Create rock collection display & work on group presentation on rock collection & rock cycle
 - Rehearse and edit presentation; remember you have a time limit of 3 – 5 mins
 - Remember to reference project handout to make sure you have included all required components

Wednesday 09/14

Objectives:

- Students will understand the Rock Cycle and how to classify types of rocks

Agenda:

- Continue work on Rock Collection & Rock Cycle Project:
 - Classification & identification of rocks should be complete
 - Create rock collection display & work on group presentation
 - Rehearse and edit presentation; remember you have a time limit of 3 – 5 mins
 - Remember to reference project handout to make sure you have included all required components

Tuesday 09/13

Objectives:

- o **Students will understand the Rock Cycle and how to classify types of rocks**

Agenda:

- o **Continue work on Rock Collection & Rock Cycle Project:**
 - o **Classify rocks & Identify rocks using lab resources & online resources**
 - o **Create rock collection display & work on group presentation**

Monday 09/12

Objectives:

- o Students will understand the Rock Cycle and how to classify types of rocks

Agenda:

- o Continue work on Rock Collection & Rock Cycle Project assignment:
 - o Choose rocks from individual collections to make final group collection
 - o Classify rocks & Identify rocks using lab resources & online resources

Friday 09/09

Objectives:

- o **Students will understand the Rock Cycle and how to classify types of rocks**

Agenda:

- o **Collect missing (MS)2TC forms including syllabus signature page**
- o **Start work on Rock Collection & Rock Cycle Project assignment**

Thursday 09/08

Objectives:

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

Agenda:

- o Collect (MS)2TC forms (1st & 4th periods)
- o Collect summer work project rock collection
- o Discuss & Review Rock Collection & Rock Cycle Project handout

HW:

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

Wednesday 09/07

- o Collect schedule in cafeteria
- o 1st & 4th Hours Housekeeping stuff:
 - o Collect MS2TC forms & locker assignment
- o Review CHAMPS classroom behavior practices
- o Review course syllabus
- o Week 1 seating chart
- o Discuss Summer Work Packet; Bring in rock collection tomorrow Thursday

HW:

Review course syllabus with parents & turn in signature page to Mrs. Duddles by Friday

Tuesday 09/06

o 1/2 Day – Home School Only