



**Gasconade R-2**  
**Objective Course Curriculum Report for: Biology II -**  
**Eleventh Grade**

*Generated on 11/23/2015*

Name

Biology II Objective 1

Unit Objective

The students will exhibit proper laboratory techniques and procedures.

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Sequence

1

Assessment Methods

Essential Questions

Course

Biology II

Unit

Objective used to assess students

Formative Assessment Activities

The students will exhibit proper laboratory techniques and procedures through a lab assesment.

Depth of Knowledge

90

Learning Activity

Students will practice exhibiting proper laboratory techniques with a bubble gum lab. The students will write a lab report that summarizes conclusions from laboratory data.

Research-based Instructional Strategies

The teacher will explain steps in the scientific method. The teacher will describe and show examples of completed lab reports. The teacher will model the procedures of the bubble gum lab. The teacher will give a safety quiz.

Supporting Resources

Biology, Life on Earth (5th Edition), Prentice Hall 1999SMARTBoard Lesson

Correction Exercise

The students will complete extra enrichment worksheets on the concepts.

Enrichment Exercise for Accelerated Learners

Students will complete activities in which they are practicing safe laboratory procedures.

Remediation for Struggling Learners

All laboratory equipment will be needed for these activitiesPurchase lots of cheap bubble gum.

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Code	Subject	Grade	Standard
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 2

Unit Objective

The student will discover the characteristics of living things, categorize the diversity of life, discuss evolutionary concepts, and determine how biology is used in everyday life.

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Sequence

2

Assessment Methods

Essential Questions

Course

Biology II

Unit

02 An introduction to life on earth

Objective used to assess students

Formative Assessment Activities

The student will discover the characteristics of living things, categorize the diversity of life, discuss evolutionary concepts, and determine how biology is used in everyday life.

Depth of Knowledge

80

### Learning Activity

The student will take notes and participate in the discussion of Biology and everyday life. Guided by the teacher, the students will use the internet to research careers in Biology. The students will categorize fake bugs by putting them into different groups based on their characteristics.

### Research-based Instructional Strategies

The teacher will lead a discussion of the role of Biology in everyday life.

### Supporting Resources

Biology, Life on Earth (5th Edition), Prentice Hall 1999 "Buggy" Classification Wks. SMARTBoard Lessons: By TWUnited Streaming Videos:  
Diversity of Life, A world of difference  
Diversity of Life, Act with the facts.

### Correction Exercise

Students may research material on their own and present a paper to the teacher.

### Enrichment Exercise for Accelerated Learners

Students may read two scientific articles about the subject and then present a paper to the teacher comparing the two articles.

### Remediation for Struggling Learners

"Buggy" Classification Wks. Need computers with internet access.

### English Language Learner

### District Defined

### Objective is A+

Missouri School Improvement Program

Code	Subject	Grade	T
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Show-Me Standards



Code	Subject	Grade	Standard	Goal
8	Science	Grades: K-12	impact of science, technology and human activity on resources and the environment	
1.1	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Develop questions and ideas to initiate and refine research
1.5	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Comprehend and evaluate written, visual and oral presentations and works
1.10	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Apply acquired information, ideas and skills to different contexts as students, workers, citizens and consumers
3.4	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.	Evaluate the processes used in recognizing and solving problems
4.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society.	Understand and apply the rights and responsibilities of citizenship in Missouri and the United States

4.4	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society.	Recognize and practice honesty and integrity in academic work and in the workplace
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Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 3

Unit Objective

1. Students will investigate plant reproduction and development.
2. Students will distinguish among the different plant divisions.
3. The students will identify plant structures and function.

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Sequence

3

## Assessment Methods

## Essential Questions

## Course

Biology II

## Unit

03 Plants

## Objective used to assess students

## Formative Assessment Activities

Students will investigate plant reproduction and development by growing their own Wisconsin Fast Plant and then mating that plant with other plants. Students will participate in discussion and take notes.

## Depth of Knowledge

75

## Learning Activity

1. The students will take notes during discuss of plant evolution and adaptations, nonvascular plants, seedless vascular plants, and vascular seed plants.
2. Enrichment worksheets will be completed by the students (21.1, 21.2, and 21.3)
3. The students will complete a laboratory activity in which plants are grown with different sets of variables for each class. (this is also a great exercise in the scientific method)
4. The students will create a formal lab report including information and data gathered from the plant growth laboratory exercise.

## Research-based Instructional Strategies

Supporting Resources

Correction Exercise

Enrichment Exercise for Accelerated Learners

Remediation for Struggling Learners

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Grade and Course Level Standards

Common Core Standards

Version

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Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 5

Unit Objective

The student will compare and contrast the different features of photosynthesis and respiration.

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Assessment Methods

Essential Questions

Course

Biology II

Unit

05 Photosynthesis and Respiration

Objective used to assess students

Formative Assessment Activities

The student will compare and contrast the different features of photosynthesis and respiration.

Depth of Knowledge

### Learning Activity

Students will use chromatography to separate the pigments in spinach leaves. Students will use this data to create a scientific laboratory report. Students will complete worksheets over the concepts and steps of photosynthesis and respiration.

### Research-based Instructional Strategies

Teacher will instruct students on the processes of photosynthesis and respiration through notes and discussion.

### Supporting Resources

Biology, Dynamics of Life (5th Edition) 1999 Biology II Binder SMARTBoard Lessons by TW

1. Photosynthesis
2. Photo Concept Map
3. Chromatography Calculations
4. 8 Respiration
5. Respiration

### Correction Exercise

Students will re-read the chapters on photosynthesis and respiration.

### Enrichment Exercise for Accelerated Learners

The student will research how plants can reduce the amount of carbon dioxide in our atmosphere.

### Remediation for Struggling Learners

Spinach leaves, fingernail polish remover Laptops will be helpful for completing lab report. Prepare students by teaching Microsoft Excel skills.

### English Language Learner



District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Code	Subject	Grade	Standard	Goal
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.1	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Develop questions and ideas to initiate and refine research
1.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Conduct research to answer questions and evaluate information and ideas
1.3	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Design and conduct field and laboratory investigations to study nature and society
1.4	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Use technological tools and other resources to locate, select and organize information

1.6	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Discover and evaluate patterns and relationships in information, ideas and structures
1.7	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Evaluate the accuracy of information and the reliability of its sources
1.8	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Organize data, information and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation
1.10	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Apply acquired information, ideas and skills to different contexts as students, workers, citizens and consumers
3.4	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.	Evaluate the processes used in recognizing and solving problems
3.5	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.	Reason inductively from a set of specific facts and deductively from general premises

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 6

Unit Objective

The students will identify plant form and function.

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5

Assessment Methods

Essential Questions

Course

Biology II

## Unit

06 Plant anatomy and physiology

## Objective used to assess students

## Formative Assessment Activities

The students will identify structure and function.

## Depth of Knowledge

80

## Learning Activity

Students will use a model of plant anatomy to create their own structure/drawing of the plant and its anatomy. Students will then relate the structure of the plant to the functions.

## Research-based Instructional Strategies

Teacher will gather all materials for growing the Wisconsin Fast Plants and will model the correct procedures. The teacher will lead discussions of plant form, function, and reproduction.

## Supporting Resources

Wisconsin Fast Plant booklet, Carolina. Biology, Life on Earth (5th edition). SMARTBoard Lessons by TW

1. Groups of Plants
  2. Plant Structure and Reproduction PowerPoint Lessons by TW
1. Divisions of Plants United Streaming Videos:
1. The World of Plants

## Correction Exercise

The student will attempt to grow another plant.

## Enrichment Exercise for Accelerated Learners

The students may perform different experiments on extra plants, ie. does position matter, does light color and intensity matter.

Remediation for Struggling Learners

Wisconsin Fast Plants and materials.

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Code	Subject	Grade	Standard	Goal
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.1	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Develop questions and ideas to initiate and refine research
1.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Conduct research to answer questions and evaluate information and ideas
1.3	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Design and conduct field and laboratory investigations to study nature and society
1.4	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Use technological tools and other resources to locate, select and organize information



1.5	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Comprehend and evaluate written, visual and oral presentations and works
1.6	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Discover and evaluate patterns and relationships in information, ideas and structures
1.8	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Organize data, information and ideas into useful forms (including charts, graphs, outlines) for analysis or presentation

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 7

Unit Objective

The student will explain and differentiate between the different microbes.

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Assessment Methods

Essential Questions

Course

Biology II

Unit

07 Microbes

Objective used to assess students

Formative Assessment Activities

The student will explain and differentiate between viruses, bacteria, and protists.

Depth of Knowledge

80

## Learning Activity

Students will take notes and participate in discussion of each type of microbe to explain and differentiate between the microbes. Students will learn how to make a streak plate and will grow bacteria they have swabbed from around the school building. St student will complete worksheets entitled The Hidden World of Microbes. Students will use a video to discuss antibiotics.

## Research-based Instructional Strategies

The teacher will lead discussion of each microbe. The teacher will facilitate the proper way to create a streak plate. The teacher will show videos

## Supporting Resources

Biology, Life on Earth (5th edition), Prentice Hall 1999 Video: Modern Marvels: Antibiotics The Wonder Drugs SMARTBoard Lessons by TW

1. Bacteria
2. Steaking
3. Viruses
4. Protista
5. Bacteria Lab Write-up

PowerPoint Lessons by TW

1. Chapter Review Game
1. Understanding Bacteria

## Correction Exercise

The student will complete additional reinforcement worksheets on the concepts.

## Enrichment Exercise for Accelerated Learners

Students may research how each microbe has affected humans.

## Remediation for Struggling Learners

Notes will be printed out for the student to view and make marks on.

## English Language Learner

## District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Code	Subject	Grade	Standard	Goal
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
8	Science	Grades: K-12	impact of science, technology and human activity on resources and the environment	
1.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Conduct research to answer questions and evaluate information and ideas
1.3	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Design and conduct field and laboratory investigations to study nature and society
3.1	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.	Identify problems and define their scope and elements
3.4	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to recognize and solve problems.	Evaluate the processes used in recognizing and solving problems

4.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to make decisions and act as responsible members of society.	Understand and apply the rights and responsibilities of citizenship in Missouri and the United States
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Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 8

Unit Objective

The student will analyze characteristics of the organisms within the Kingdom Fungi.

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Sequence

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## Assessment Methods

## Essential Questions

## Course

Biology II

## Unit

08 Fungi

## Objective used to assess students

## Formative Assessment Activities

The student will analyze characteristics of the organisms within the Kingdom Fungi with a lab and paper assesment.

## Depth of Knowledge

80

## Learning Activity

The student will take notes and participate in discussion of structural and functional aspects of organisms in the Kingdom Fungi. The student will view different preserved fungi and preserved slides of fungi structures to determine the classes in which they belong. The student will complete worksheets to analyze characteristics of the kingdom fungi.

## Research-based Instructional Strategies

The teacher will lead discussion of fungi. The teacher will prepare microscopes and specimens for viewing. The teacher will show video clips on fungi. The teacher will demonstrate a yeast lab to determine the amount of CO<sub>2</sub> is given off.

## Supporting Resources

1. Fungus notes
2. Types of Fungus
3. Disease Presentation 1 and 2
4. Humans FungusUnited Streaming Videos:
  1. Magic School Bus Meets the Rot Squad
  2. The World of Fungi

#### Correction Exercise

Students will complete additional reinforcement worksheets on the concepts.

#### Enrichment Exercise for Accelerated Learners

Students may bring in different fungi from around the area and we will attempt to classify each type based on the knowledge gained in class.

#### Remediation for Struggling Learners

Fungus specimens.

#### English Language Learner

#### District Defined

#### Objective is A+

#### Missouri School Improvement Program

#### Show-Me Standards

Code	Subject	Grade	Standard	Goal
4	Science	Grades: K-12	changes in ecosystems and interactions of organisms with their environments	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.5	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Comprehend and evaluate written, visual and oral presentations and works
1.7	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Evaluate the accuracy of information and the reliability of its sources
1.10	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Apply acquired information, ideas and skills to different contexts as students, workers, citizens and consumers

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 9

Unit Objective

Students will analyze characteristics of different members of the phylum porifera.

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Sequence

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Assessment Methods

Essential Questions

Course

Biology II

Unit

09 Phylum Porifera

Objective used to assess students

Formative Assessment Activities

Students will analyze characteristics of different members of the phylum porifera with a laboratory assessment and constructed response assessment.

### Depth of Knowledge

85

### Learning Activity

Students will take notes and participate in discussion of sponges. Students will read and complete a sponge coloring worksheet. Students will begin an animal flip book that they will add to and keep for the rest of the year. The students will identify preserved specimens of porifera.

### Research-based Instructional Strategies

The teacher will lead the discussion of porifera characteristics and classifications. The teacher will provide a model for the animal flip book.

### Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Sponges United Streaming Video Clips
1. A Closer Look at Sponges
2. Sponges 2 Seahouse
3. Sponges Caribbean

### Correction Exercise

The student will complete extra reinforcement worksheets on the concepts.

### Enrichment Exercise for Accelerated Learners

The students will research the life cycle of a sponge.

### Remediation for Struggling Learners

Porifera specimens

District Defined

Objective is A+

Missouri School Improvement Program

## Show-Me Standards

Code	Subject	Grade	Standard	Goal
4	Science	Grades: K-12	changes in ecosystems and interactions of organisms with their environments	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.5	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Comprehend and evaluate written, visual and oral presentations and works
1.10	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Apply acquired information, ideas and skills to different contexts as students, workers, citizens and consumers

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name



Unit Objective

The students will categorize members of the phylum cnidaria into more specific groups based on structures, functions, reproduction, and movement.

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Sequence

9

Assessment Methods

Essential Questions

Course

Biology II

Unit

Objective used to assess students

Formative Assessment Activities

The students will differentiate members of the phylum cnidaria into more specific classes base on structures, functions, reproduction, and movement.

Depth of Knowledge

80

Learning Activity

Using live specimens of Hydra, students will observe the movement and other characteristics of a hydra. Students will complete worksheets over the different characteristics of Cnidarians. Students will complete coloring pages to study the anatomy of different cnidarians as well as the functions of specialized structures.

Research-based Instructional Strategies

The teacher will give notes and facilitate activities that deal with cnidarian structure, function, and evolutionary origin.

Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United StreamingPowerPoint Presentations by TW

1. Phylum Cnidarian SMARTBoard Lessons by TW
1. Classes of CnidariansUnited Streaming Videos
1. Cnidaria
2. Oceans Alive The Clownfish and the Anemone
3. Coral Reefs Rainforest of the Seas

Correction Exercise

Sketch the life cycle of an obelia.

Enrichment Exercise for Accelerated Learners

Students will read in a scientific journal and create a report on the topic.

Remediation for Struggling Learners

Hydra preserved slides Order living hydra.

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Code	Subject	Grade	Standard	Goal
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.3	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Design and conduct field and laboratory investigations to study nature and society
1.6	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Discover and evaluate patterns and relationships in information, ideas and structures

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range

Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 11

Unit Objective

The students will categorize members of the phylum platyhelminthes into more specific groups based on structures, functions, reproduction, and movement.

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Sequence

10

Assessment Methods

Essential Questions

Course

Biology II

## Unit

11 Phylum Platyhelminthes

## Objective used to assess students

## Formative Assessment Activities

The students will separate members of the phylum platyhelminthes into more specific groups based on structures, functions, reproduction, and movement.

## Depth of Knowledge

75

## Learning Activity

Students will view live planaria to investigate their movement in regards to phototaxis and their ability to regenerate. Students will complete flip-book entries for the phylum platyhelminthes. Students will complete coloring pages on the classes of platyhelminthes. Students will view pictures of the different types of tapeworms and their lifecycles.

## Research-based Instructional Strategies

Teacher will lead discussion and give notes over the phylum platyhelminthes. Teacher will facilitate laboratory activities involving live planaria.

## Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Platyhelminthes
2. Those disgusting Tapeworms

## Correction Exercise

Research online and present a sketch of a tapeworms lifecycle to the teacher.

Enrichment Exercise for Accelerated Learners

Student may complete extra activities involving the planaria.

Remediation for Struggling Learners

Live planaria  
Black construction paper

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

Show-Me Standards

Code	Subject	Grade	Standard	Goal
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Conduct research to answer questions and evaluate information and ideas
1.6	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Discover and evaluate patterns and relationships in information, ideas and structures

Grade and Course Level Standards

Common Core Standards

Version

1

Files

Date Range



Other Standards

Other Diverse Learners

Students Self-Reflection About Personal Goals

Use of Technology

Guiding Questions

Guiding Questions Depth of Knowledge

Summative Assessment Activities

Summative Correction Exercise

Family and Community Involvement

Name

Biology II Objective 12

Unit Objective

Students will analyze characteristics of different members of the phylum nematoda.

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System

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System

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Sequence

11

Assessment Methods

Essential Questions

Course

Biology II

Unit

12 Phylum Nematoda

Objective used to assess students

Formative Assessment Activities

Students will classify characteristics of different members of the phylum nematoda.

Depth of Knowledge

80

## Learning Activity

Students will complete color pages on the life cycle and structures of various nematodes and rotifers. Students will create a section in their flip-books referring to nematodes and rotifers.

## Research-based Instructional Strategies

The teacher will lead a class discussion and present notes to the students about the different classes of nematodes and rotifers as well as life cycle and the infections each may cause.

## Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Rotifers
2. Nematodes United Streaming Videos
1. The Phyla of Worms
2. Parasitic worms of the Animal Kingdom

## Correction Exercise

Research information about the life cycle of a hookworm and then present that information to the class in a PowerPoint presentation.

## Enrichment Exercise for Accelerated Learners

Students will complete extra worksheets on the topic.

## Remediation for Struggling Learners

Bring in soil to introduce helpful rotifers and nematodes.

## English Language Learner

## District Defined

## Objective is A+

Show-Me Standards

Code	Subject	Grade	Standard	Goal
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.1	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Develop questions and ideas to initiate and refine research
1.6	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Discover and evaluate patterns and relationships in information, ideas and structures

Grade and Course Level Standards

Common Core Standards

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Guiding Questions Depth of Knowledge

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Name

Biology II Objective 13

Unit Objective

Students will outline characteristics of different members of the phylum annelida.

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Biology II

Unit

13 Phylum Annelida

Objective used to assess students

Formative Assessment Activities

Students will analyze characteristics of different members of the phylum nematoda using pictures and selected response questions.

## Depth of Knowledge

80

## Learning Activity

Students will complete color pages about annelids that discuss the structure of segmented worms and leeches. Students will complete a laboratory activity in which live worms are used to discover properties of the segmented worm. The student will complete a flip-book over the topic.

## Research-based Instructional Strategies

The teacher will lecture about the annelids and explain the different classes of annelids.

## Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Annelids Day 1
2. Annelids Day 2 United Streaming Videos
1. Worms
2. Worm Farm

## Correction Exercise

The student will complete an extra worksheet and/or assessment on the subject.

## Enrichment Exercise for Accelerated Learners

The students will complete extra worksheets on the topic.

## Remediation for Struggling Learners

Buy worms...depending on the time of year this may be difficult. Prepare ahead.

## English Language Learner

## District Defined

## Missouri School Improvement Program

## Show-Me Standards

Code	Subject	Grade	Standard	Goal
7	Science	Grades: K-12	processes of scientific inquiry (such as formulating and testing hypotheses)	
3	Science	Grades: K-12	characteristics and interactions of living organisms	
1.2	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Conduct research to answer questions and evaluate information and ideas
1.6	Knowledge Standards	Grades: K-12	Students in Missouri public schools will acquire the knowledge and skills to gather, analyze and apply information and ideas.	Discover and evaluate patterns and relationships in information, ideas and structures

## Grade and Course Level Standards

## Common Core Standards

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Name

Biology II Objective 14

Unit Objective

The students will categorize members of the phylum arthropoda into more specific groups based on structures, functions, reproduction, and movement.

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Assessment Methods

Essential Questions

Course

Biology II

Unit

14 Phylum Arthropoda

Objective used to assess students

Formative Assessment Activities

The students will differentiate members of the phylum arthropoda into more specific groups base on structures, functions, reproduction, and movement.

### Depth of Knowledge

80

### Learning Activity

The students will complete a dissection of a grasshopper and examine the external and internal anatomy. The students will complete coloring pages that illustrate the external features of a crayfish and a spider. The students will answer questions after watching a video entitled "The Jeff Corwin Experience, Insects and Arachnids" The student will complete a flip-book over the topic.

### Research-based Instructional Strategies

The teacher will provide notes on the board. The teacher will model the appropriate dissection techniques.

### Supporting Resources

SMARTBoard Lessons by TW

1. Crustaceans
2. Chilcerates 2
3. Crayfish Dissection
4. Insects

United Streaming Videos

1. Those Amazing Arthropods
2. The Jeff Corwin Experience The Arachnids and Insects
3. Incredible World of Insects

### Correction Exercise

The student will complete an extra assessment over the topic.

### Enrichment Exercise for Accelerated Learners

The student will complete an extra assignment on the subject.

### Remediation for Struggling Learners

Preserved specimens Grasshoppers

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

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Summative Correction Exercise

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Name

Biology II Objective 15

Unit Objective

The students will categorize members of the phylum mollusca into more specific groups based on structures, functions, reproduction, and movement.

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## Sequence

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## Assessment Methods

## Essential Questions

## Course

Biology II

## Unit

15 Phylum Mollusca

## Objective used to assess students

## Formative Assessment Activities

The students will categorize members of the phylum mollusca into more specific groups based on structures, functions, reproduction, and movement. Students will, through a laboratory practical, label the structures found in a freshwater mussel and describe their function.

## Depth of Knowledge

80

## Learning Activity

The students will research different molluscs and make a sign that explains the characteristics of each class and some interesting facts. The students will examine the internal and external structures of a freshwater clam by completing coloring pages. The students will perform a dissection on a freshwater clam. The student will complete a flip-book over the topic.

## Research-based Instructional Strategies

The teacher will provide notes on the board. The teacher will model correct dissection procedure. The teacher will point out important features of the freshwater clam.

## Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Mollusc United Streaming Video Clips
1. Hatching Octopus
2. Foraging Octopus

## Correction Exercise

The student will complete an extra laboratory assessment.

## Enrichment Exercise for Accelerated Learners

The student will complete an online dissection of a clam.

## Remediation for Struggling Learners

Freshwater clams

## English Language Learner

## District Defined

Objective is A+

## Missouri School Improvement Program

## Show-Me Standards

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Name

Biology II Objective 16

Unit Objective

Students will outline characteristics of different members of the phylum echinodermata.

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Biology II

## Unit

16 Phylum Echinodermata

## Objective used to assess students

## Formative Assessment Activities

Students will outline characteristics of different members of the phylum echinodermata. Students will describe structures of a sea star and function of those parts during a laboratory practical.

## Depth of Knowledge

80

## Learning Activity

The student will complete fill-in-the blank worksheets in which they also label the parts of a starfish, sea urchin, and sea cucumber. The students will complete a cross word puzzle on echinoderms. The students will complete a starfish dissection. The students will complete a flip-book over the topic.

## Research-based Instructional Strategies

The teacher will provide notes over echinoderms on the board. The teacher will model the appropriate dissection techniques.

## Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Classes of Echinoderms
2. Starfish Dissection

## Correction Exercise

Enrichment Exercise for Accelerated Learners

Remediation for Struggling Learners

English Language Learner

District Defined

Objective is A+

Missouri School Improvement Program

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Name

Biology II Objective 17

Unit Objective

The students will compare and contrast members of the different classes of fish based on structures, functions, and reproduction.

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Biology II

Unit

17 Phylum Chordata: The fishes

Objective used to assess students

Formative Assessment Activities

The students will categorize members of the different classes of fish based on structures, functions, and reproduction.

Depth of Knowledge

80

Learning Activity

The students will complete an online lesson over the fishes. The student will view an online perch dissection. The student will analyze the structures of a shark that helped it to become a top predator.

### Research-based Instructional Strategies

The teacher will provide notes on the board. The teacher will guide the students through the online lesson. The teacher will provide the information for the analyzing of the shark features.

### Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Fish Notes
2. Video Quiz: What is a Fish PowerPoint Lessons by TW
1. What is a Fish United Streaming Video Clips
1. Exploring Sharks
2. Isn't it Romantic: The Courtship of Sharks
3. Science of the Sea: What is a Fish
4. Squid Feast: Sharks Feeding
5. The Birth of a Shark
6. The Healing Properties of Deep Sea Sharks
7. The Jaws of the Beast: How a Shark's Teeth Work

### Correction Exercise

### Enrichment Exercise for Accelerated Learners

### Remediation for Struggling Learners

### English Language Learner

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### Objective is A+

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## Summative Correction Exercise

## Family and Community Involvement

### Name

Biology II Objective 18

### Unit Objective

The students will compare and contrast members of the classes amphibia and reptilia based on structures, functions, and reproduction.

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### Sequence

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### Assessment Methods

### Essential Questions



## Course

Biology II

## Unit

18 Phylum Chordata: The Amphibians and Reptiles

## Objective used to assess students

## Formative Assessment Activities

The students will compare and contrast members of the classes amphibia and reptilia based on structures, functions, and reproduction. The student will complete a virtual dissection of the frog.

## Depth of Knowledge

## Learning Activity

Students will watch and answer questions over an online frog dissection. Students will read and color printouts over snakes, frogs, and turtles. Using a venn diagram students will compare and contrast frogs and toads. After the presentation on amphibians and reptiles students will discuss the differences between amphibians and reptiles (amniotic egg, integument, etc.) as well as the adaptations needed for life on land. Students will watch video clips from a United Streaming video called Frogs, Facts and Folklore.

## Research-based Instructional Strategies

The teacher will provide notes over amphibians and reptiles. The teacher will present the online frog dissection. The teacher will lead a discussion over the differences and similarities of amphibians and reptiles.

## Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Amphibian Notes
2. Reptile Notes
3. Virtual Frog

United Streaming Videos

1. Frogs, Facts and Folklore
2. The Jeff Corwin Experience the Reptiles in US and South America

Correction Exercise

Enrichment Exercise for Accelerated Learners

Remediation for Struggling Learners

English Language Learner

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Name

Biology II Objective 19

Unit Objective

Students will outline characteristics of members of the class mammalia.

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Biology II

Unit

19 Phylum chordata: The mammals

Objective used to assess students

## Formative Assessment Activities

Students will outline characteristics of members of the class mammalia. Students will describe and locate structures of a mammal with a fetal pig dissection.

## Depth of Knowledge

80

## Learning Activity

The students will complete an internet lesson over mammals. The students will answer review questions over chapter 22 in their book. The students will complete a lab on mammalian fetus development. The students will watch a United Streaming video titled "The Great Apes" and complete a worksheet. The students will complete color pages depicting the external, internal, and skeletal features of the fetal pig. The students will dissect a fetal pig.

## Research-based Instructional Strategies

The teacher will provide notes over mammals. The teacher will model proper dissection techniques. The teacher will lead discussion over mammalian adaptations.

## Supporting Resources

SMARTBoard Lessons by TW  
1. Mammals Notes

## Correction Exercise

## Enrichment Exercise for Accelerated Learners

## Remediation for Struggling Learners

## English Language Learner

District Defined

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Name

Biology II Objective 20

Unit Objective

Students will discuss and describe different animal behaviors and the ecosystems in which they live. Students will then present information on animal behaviors and the ecosystems in which they live.

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## Sequence

19

## Assessment Methods

## Essential Questions

## Course

Biology II

## Unit

20 Animal behaviors and ecosystems in which they live

## Objective used to assess students

## Formative Assessment Activities

Students will discuss and present information gathered from class, internet, and a trip to the St. Louis Zoo to describe different animal behaviors and the ecosystems in which they live.

## Depth of Knowledge

80

## Learning Activity

The students will complete a chapter 37 worksheet over animal behavior. The students will research an animal found at the St. Louis zoo. The students will then complete a biological study of the organism and take data from the animal while on a field trip to the St. Louis Zoo. The student will then complete a lab write-up and presentation over their animal and its behaviors. The student will then give the presentation to the class.

## Research-based Instructional Strategies



The teacher will lead discussion over animal behaviors. The teacher will chaperone a trip to the St. Louis zoo. The teacher will model the correct way to make a presentation and present material to the kids.

### Supporting Resources

Biology Life on Earth (5th edition), 1999 Teacher made resources United Streaming SMARTBoard Lessons by TW

1. Animal Behavior Notes United Streaming Video
1. Animal Intelligence

### Correction Exercise

### Enrichment Exercise for Accelerated Learners

### Remediation for Struggling Learners

### English Language Learner

### District Defined

### Objective is A+

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