Topic: My Body and Me - Body Works **Days:** 20
Subject(s): Science **Grade(s):** 6th

Know:	Understand:	Do:
The human body includes the digestive, respiratory and circulatory systems The digestive, respiratory, and circulatory systems work together to sustain life. The function of each major organ in the digestive system (Liver, Stomach, Intestines, etc). The function of each major organ in the respiratory system (Heart, lungs, etc) The function of each major organ in the circulatory system (Heart, vein, artery, capillary) Technological advances in medicine and improvements in hygiene have helped in the prevention and treatment of illness.	The human body has systems that work together to perform functions necessary for life. The functioning and health of organisms are influenced by many internal and external factors.	Create a model of the major organs of the 3 systems. Trace the path of food, oxygen and blood through the 3 different body systems. Create a brochure that persuades teenagers to make healthy discussions about their body.

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Common Assessments on what students should know and do in this unit:

Topic: My Body and Me - Body Works **Days:** 20

Subject(s): Science **Grade(s):** 6th

Key Learning: **The human body has systems that work together to perform functions necessary for life.**

The functioning and health of organisms are influenced by many internal and external factors.

Unit Essential Question(s): **How do the digestive, respiratory, and circulatory systems work together to sustain life?**

Concept: **Digestive System**	**Concept:** **Respiratory System**	**Concept:** **Circulatory System**
Lesson Essential Question(s): How does the liver help your body stay in balance? (A) How does your body breakdown food mechanically and chemically? (A) What are functions of the major stuctures of the digestive system? (A)	**Lesson Essential Question(s):** What are the functions of the major organs of the respiratory system? (A)	**Lesson Essential Question(s):** How does blood move through your body? (A) How does your heart respond to your body's level of activity? (A) How does the heart's structure allow it to do its job? (A) What are some trade-offs in developing new treatments for heart problems? (A) How can we make voluntary choices to reduce risk factors for heart disease? (A)
Vocabulary: Mechanical Breakdown, Chemical Breakdown, System, Organ, Absorptioin, Toxin, structure, Function, Liver, Trade-Off, Mouth, Esophagus, Stomach, Small Intestine, Large Intestine, Rectum	**Vocabulary:** Respiratory, Indicator, Carbon Dioxide, Oxygen, Pressure Bulb, Pressure Bulb, Pressure Bulb	**Vocabulary:** Pulse, Recovery Rate, Resting Rate, Valve, Heart disease, Risk Factor, Siphon Bulb, Pump, Voluntary, Involuntary

Additional Information:

Attached Document(s):

Vocab Report for Topic: My Body and Me - Body Works **Days:** 20
Subject(s): Science **Grade(s):** 6th

Concept: Digestive System
Mechanical Breakdown -
Chemical Breakdown -
System -
Organ -
Absorptioin -
Toxin -
structure -
Function -
Liver -
Trade-Off -
Mouth -
Esophagus -
Stomach -
Small Intestine -
Large Intestine -
Rectum -

Concept: Respiratory System
Respiratory -
Indicator -
Carbon Dioxide -
Oxygen -
Pressure Bulb -
Pressure Bulb -
Pressure Bulb -

Concept: Circulatory System
Pulse -
Recovery Rate -
Resting Rate -
Valve -
Heart disease -
Risk Factor -
Siphon Bulb -
Pump -
Voluntary -
Involuntary -

Topic: My Body and Me - Body Works **Days:** 20
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5. Launch Activity 1

How are you going to get students engaged?
Develop student interest and link their prior knowledge.
Start the Student Learning Map of the unit with students.
Preview key vocabulary with students.:

Short Description:

Sick Day & What's Happening Inside?

Long Description:

1. Introduction to the Learning Map

2. Vocab sort - Students will be given all the vocab words and will sort into the concept groups.

3. Activity 11 (day 1) - Sick Day ~ Students will be assigned a part in the play. Each group will read through the play. They then will be assigned a Medicine Card. Students will work independently to complete their medicine card/data sheet. Students will jigsaw to meet with the other students who had the same medicine card. Students will then bring their data back to their home group and share out, so they have a completed data sheet.

4. Exit ticket - What are Trade-Offs to taking medicine when you are sick?

5. Activity 12 (day 2) - What's Happening Inside? Students will draw an outline of a body (trace the smallest student). Students will work in groups of four to draw and label the parts of the body in the Digestive, Respiratory and Circulatory systems. Students will complete a gallery walk to observe the other drawings. They will complete a notice and wonder Exit Ticket.

6. Activity 12 (day 2) - Students will complete a Sturcture/Function worksheet with their partner. They will label the body parts on the diagrams while filling in the function(p. B-21) on a 2nd worksheet (p B-22-25). This will be their PRE-ASSESSMENT.

7. Activity 2 (day 3) - Students will use the structure/function worksheets to create a body clay model. Each student will be assigned a clay color and is responsible for making the structure for the system.

8. Students will go through the structure/function worksheets as a post-assessment (as a class).

Resources and Materials:

Copy Medicine card (B-6/7), medicine card worksheet (teacher page B-9), chart paper, markers, clay, body worksheets (p B-21-25)

Time (in days):

1

Topic: My Body and Me - Body Works **Days:** 20
Subject(s): Science **Grade(s):** 6th
Concept: Digestive System

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

How does the liver help your body stay in balance?

What do students need to learn to be able to answer the Essential Question?

Assessment Prompt 1: What are the functions of the liver?
Assessment Prompt 2: Why is it important to pay attention to what you eat?

Activating Strategy:

KWL - Have students create a KWL , What do students know and want to know about the Liver?

Key vocabulary to preview:

Liver, Toxin

Teaching Strategies:

Graphic Organizer:

KWL

Instruction:

POD - List everything you know about the Liver

AP: What are the functions of the liver? - As students read through the play, they will stop and record the functions of the liver.

* Students should be recording any words they are unsure of as they read. They can be added to the classroom parking lot to review with the class.

AP: Why is it important to pay attention to what you eat? - Students will continue reading the last portion of the play (pages B-16/17). Students will define a toxin and the role the liver plays for a toxin. Students will also list what can happen if they eat/drink unhealthy or take certain medicines.

Summarizing Strategy:

Reflection Questions - Take the role of the liver, explain to your body why it is important to eat healthy?

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5. Acquisition Lesson

Word Splash - Have students create a liver and write all the words/phrases they learned about the liver and its function in the body.

Time (in days):

1

Topic: My Body and Me - Body Works
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Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

How does your body breakdown food mechanically and chemically?

What do students need to learn to be able to answer the Essential Question?

Assessment Prompt 1: Compare/Contrast - Chemical Breakdown & Mechanical Breakdown
Assessment Prompt 2: How does the size of your food affect the rate of breakdown?

Activating Strategy:

Brainstorm Web - Why do we chew our food?

Key vocabulary to preview:

Mechanical Breakdown, Chemical Breakdown

Teaching Strategies:

Graphic Organizer:

Word Map

Instruction:

POD : Why is it important to chew your food?

AP: Compare/Contrast - Chemical Breakdown &Mechanical Breakdown. Students will identify mechanical and chemical breakdown through a word map.

Students will work in pairs to compare/contrast antiacid tablets with vinegar vs. water.

* Students will use a 1/4 antiacid tablet and will put 10 drops of vinager. Students will create an observation chart. Students will use a 1/4 antacid tablet and will put 10 drops of water. Students will create an observation chart.

Students will create a hypothesis about which cup they think their stomach breaks food down like (the vinegar or water).

AP: How does the size of your food affect the rate of breakdown?

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Concept: Digestive System

5. Acquisition Lesson

Students will brainstorm tablet sizes (1/4, 1/2 &1). Students will test the size (1/2 or 1 whole) with 10 drops of vinegar and observe the reaction. They will compare the results to the previous lab done with the 1/4 of tablet.

* Students should realize that the bigger the food the longer it takes to breakdown chemically.

Wrap-up - Brain Pop Video Digestive System

Summarizing Strategy:

The Important Thing - It is important to chew your food because.... I learned that the size of my food affects the rate of breakdown by...

Time (in days):

2

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Digestive System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

What are functions of the major stuctures of the digestive system?

What do students need to learn to be able to answer the Essential Question?

Assessment Prompt 1: Ordering the structures within the digestive system
Assessment Prompt 2: Identify the structure and functions of the digestive system

Activating Strategy:

Blank Body - Label the parts of the digestive system using the word bank.

Key vocabulary to preview:

Mouth, esophagus, liver, stomach, small intestine, large intestine, rectum, pancreas

Teaching Strategies:

Graphic Organizer:

Blank body, funtion data sheet (p B-28)

Instruction:

AP: Ordering the structures within the digestive system

Students will be assigned a Stop to Think Reading and will be given 3 index card. They will record the structure of the digestive system and its function on the index card as they read.

As students finish, each table will receive a poster sized blank body (teacher manuel p B-57) where they will place the index cards in order of where the food travels. * Stomach and Live are interchangeable.

Error Analysis - As a class students will post cards on a class body to be hung in the classroom.

AP: Identify the structure and functions of the digestive system

Students will receive a structure/function data sheet and will complete with a partner and will discuss as a class.

Extending Thinking Activity:

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Digestive System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Classifying and Categorizing - Magic School bus Digestive Video

Summarizing Strategy:

Exit Tickets - Structure/Function worksheet (from Training)

Time (in days):

1

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Respiratory System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

What are the functions of the major organs of the respiratory system?

What do students need to learn to be able to answer the Essential Question?

Teaching Strategies:

Time (in days):

1

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Circulatory System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

How does blood move through your body?

What do students need to learn to be able to answer the Essential Question?

Teaching Strategies:

Time (in days):

1

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Circulatory System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

How does your heart respond to your body's level of activity?

What do students need to learn to be able to answer the Essential Question?

Teaching Strategies:

Time (in days):

1

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Circulatory System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

How does the heart's structure allow it to do its job?

What do students need to learn to be able to answer the Essential Question?

Teaching Strategies:

Time (in days):

1

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Circulatory System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

What are some trade-offs in developing new treatments for heart problems?

What do students need to learn to be able to answer the Essential Question?

Teaching Strategies:

Time (in days):

1

Topic: My Body and Me - Body Works
Subject(s): Science
Concept: Circulatory System

Days: 20
Grade(s): 6th

5. Acquisition Lesson

Plan for the Concept, Topic, or Skill -- Not for the Day

Lesson Essential Question:

How can we make voluntary choices to reduce risk factors for heart disease?

What do students need to learn to be able to answer the Essential Question?

Teaching Strategies:

Time (in days):

1

Topic: My Body and Me - Body Works
Days: 20
Subject(s): Science
Grade(s): 6th

Topic: My Body and Me - Body Works **Days:** 20
Subject(s): Science **Grade(s):** 6th

What resources and materials do you need for this unit, the lessons, and the activities?

Resources Associated with the Unit:

Resources Associated with Lessons and Activities:

Resources and Materials from Launch Activity 1:

Copy Medicine card (B-6/7), medicine card worksheet (teacher page B-9), chart paper, markers, clay, body worksheets (p B-21-25)