# Human Bodies Week
## Lesson Plan (2nd-3rd)

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AM Academic Time</strong></td>
<td><strong>Tuesday</strong></td>
<td><strong>Wednesday</strong></td>
<td><strong>Thursday</strong></td>
<td><strong>Friday</strong></td>
</tr>
<tr>
<td>Read The Human Body: You've Got Some Nerve! Reading found in Supplemental Resources</td>
<td>Write about your 5 Senses Use the template to write about your favorite place in the world. Be as descriptive as possible!</td>
<td>Solving Multi-Step Addition with a Number Line Use the worksheet in Supplemental Resources</td>
<td>“She Isn't Me” Fiction Passage Use the Close Reading passage and questions in Supplemental Resources</td>
<td>Super Hero Place Value and Expanded Form Use the worksheet in Supplemental Resources</td>
</tr>
<tr>
<td><strong>Creative Time</strong></td>
<td><strong>Tuesday</strong></td>
<td><strong>Wednesday</strong></td>
<td><strong>Thursday</strong></td>
<td><strong>Friday</strong></td>
</tr>
<tr>
<td>Listen to the Bone Song <a href="https://youtu.be/e54m6XOpRqU">https://youtu.be/e54m6XOpRqU</a> Cut out the skeleton pieces and paste your skeleton together to show their best dance move. All materials found in Supplemental Materials</td>
<td>Move your Muscles Use the Supplemental Materials handout for directions on how to make a hand that moves.</td>
<td>Where are My Organs? Choose a boy or girl template, cut out the organs and reference the models on where to glue them. Activity found in Supplemental Materials</td>
<td>Color, Cut and Paste a 5 Senses Paper Plate Face Make it look like you or someone you know. Add hair with construction paper. Template in Supplemental Materials</td>
<td>Brain Neuron ART Watch the video: <a href="https://www.youtube.com/watch?v=mFuHKjpxPw">https://www.youtube.com/watch?v=mFuHKjpxPw</a> Using a black piece of construction paper and crayons draw all the lines that show connections between neurons. Example in Supplemental Materials</td>
</tr>
<tr>
<td><strong>PM Academic Time</strong></td>
<td><strong>Thursday</strong></td>
<td><strong>Friday</strong></td>
<td><strong>Friday</strong></td>
<td><strong>Friday</strong></td>
</tr>
</tbody>
</table>
How can you tell if something is hot or cold? You touch it. There are things in your fingers that help you to know if something is hot or if something is cold. They're called nerves. You have them all over your body. Nerves react to things we touch and send a message through our bodies to our brains, telling us how something feels.

If you touched the edge of a knife, how would that feel? It would hurt. If you didn't have nerves, you would still bleed, but it wouldn't hurt. You wouldn't be able to feel it. So, why are nerves a good thing? We would hurt ourselves a lot more without them.

Imagine that you're making a snack in the kitchen. You lean your hand down on the stove. After a minute or two, you notice some smoke rising in the air. It's your hand! It's burning! If you had no nerves, you wouldn't be able to feel the heat from the stove. Then you would have to go to the hospital.

If we had no nerves, the weather wouldn't affect us, or would it? If it were below 40 degrees, you wouldn't feel how cold it was. But if you went outside without protecting your body from the cold, you could get very sick or die. Nerves help us stay safe and healthy.
1. Nerves send messages to
   A. your brain.
   B. your skin.
   C. your muscles.
   D. your hands.

2. The author would most likely describe nerves as
   A. part of your attitude.
   B. the most important part of your skin.
   C. something in our body that helps us feel things.
   D. being able to feel when something is very hot or very cold.

3. If you stepped on a nail without having nerves
   A. nothing would happen.
   B. you would feel the pain in your foot.
   C. you would not feel pain in your foot.
   D. Your body would make new nerves.

4. Read the following sentence: "If we had no nerves, the weather wouldn't affect us, or would it?"

   The word affect most nearly means
   A. a result of something.
   B. to cause a change in some way.
   C. to send a message to the brain.
   D. to react to a hot or cold feeling.

5. This passage is mainly about
   A. how not to burn your hand in the kitchen.
   B. how the brain works.
   C. how nerves keep us safe and healthy.
   D. how nerves help us when we go outside.
6. Why is it important for our nerves to be functioning?


7. What do nerves do besides help protect us from hot and cold?


8. The question below is an incomplete sentence. Choose the answer that best completes the sentence.

If you didn't have nerves, you would not feel pain ______ if you were injured or hurt.

A. so
B. after
C. because
D. even
### Exploring the Five Senses

Write or draw the things you can do with your senses.

<table>
<thead>
<tr>
<th>I can hear...</th>
<th>I can see...</th>
<th>I can smell...</th>
<th>I can taste...</th>
<th>I can touch...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dr. Build-A-Bone’s Laboratory
Instructions: Conduct some research on KidsHealth.org (check out the slideshow at KidsHealth.org/en/kids/bones.html), then label the parts of the bone, and complete the notes and other documents.

**Diagram of Bone**

**Notes**
Adult human beings have ______ bones in their bodies. We also have ______ muscles.

**Experiments**
Which substance is needed in the diet to keep bones strong?
a) Sugar  
b) Calcium  
c) Bonium

**Results**
Is cartilage important for movement?  
Yes  
No

These are the names of the two bones I will try to create in the lab:

SOLVING MULTI-STEP ADDITION PROBLEMS USING A NUMBER LINE

A number line can be a helpful tool when solving multi-step problems. Read the problem below and follow the steps to solve the problem using the number line.

Benji left his classroom and walked down the hall 16 meters to Mr. Martin’s class. Then he walked from Mr. Martin’s class to Miss Beasley’s class 13 meters further down the hall. After visiting Miss Beasley’s class, Benji traveled 17 more meters down the hall to the cafeteria for lunch. How far is Benji’s classroom from the cafeteria?

To solve the problem using the number line, you start at zero (Benji’s classroom) and draw an arrow landing on the 16 to show the 16 meters that Benji traveled to get to Mr. Martin’s class.

Next, count 13 more spaces on the number line and draw an arrow from the 16 to that spot. This is where Miss Beasley’s class is located.

Finally, count 17 more spaces down the number line and draw an arrow to Benji’s final destination, the cafeteria. The number you finally land on is your answer.
So, $16m + 13m + 17m = 45m$ and Benji's classroom is 45 meters from the cafeteria.

Now, you try. Read the problems and use the number lines to help you solve them. Then, write a number sentence to go with each problem.

The Rogers family is going on a short trip. They leave their house and travel 22 miles and stop to eat breakfast. They get back in the car and travel another 16 miles to a rest stop. Then, they travel another 12 miles to get to the zoo. How many miles did the Rogers family drive to get to the zoo?

Number sentence

The Rogers family drove ___ miles to get to the zoo.

John is building a fence. The first hour he built a 14 foot section of fence. The second hour he built a 23 foot section of fence. The third hour he built a 20 foot section of fence. How long was the fence that John built in 3 hours?

Number sentence

John's fence is ___ feet long.
So, \(16m + 13m + 17m = 45m\) and Benji’s classroom is 45 meters from the cafeteria.

Now, you try. Read the problems and use the number lines to help you solve them. Then, write a number sentence to go with each problem.

The Rogers family is going on a short trip. They leave their house and travel 22 miles and stop to eat breakfast. They get back in the car and travel another 16 miles to a rest stop. Then, they travel another 12 miles to get to the zoo. How many miles did the Rogers family drive to get to the zoo?

Number sentence: \(22\text{ miles} + 16\text{ miles} + 12\text{ miles} = 50\text{ miles}\)

The Rogers family drove \(50\) miles to get to the zoo.

John is building a fence. The first hour he built a 14 foot section of fence. The second hour he built a 23 foot section of fence. The third hour he built a 20 foot section of fence. How long was the fence that John built in 3 hours?

Number sentence: \(14\text{ feet} + 23\text{ feet} + 20\text{ feet} = 57\text{ feet}\)

John’s fence is \(57\) feet long.
1. I have many jobs. I make bile to help your stomach break down food. I also store nutrients your body needs. I also make antibodies to help you fight disease. What am I?

2. I take absorb the nutrients that your body needs from your food and I put it in your bloodstream so your body can use it. What am I?

3. I am a muscle located behind your lungs. I am always moving, and I never get tired. I pump blood to all parts of your body. What am I?

4. When you eat, I mix your food with chemicals made by your body, then I chum up your food into smaller parts. What am I?

5. Your body can’t use every part of the food you eat. The waste comes to me, and I dry it out so it can leave your body. What am I?

6. We are a pair of filters that clean your blood. We take liquid waste from your bloodstream and we send it down to your bladder. What are we?

7. We take oxygen that your body needs from the air and put it in your bloodstream. We also take carbon dioxide that is in your blood and send it out of your body. What are we?

8. I hold your body parts in. I have pores so sweat can escape your body. I am filled with nerves that help you to sense temperature and feel the things around you. What am I?
9. I control your muscles and all of the organs in your body. I make sure you breathe automatically, ensure your heart beats properly, and remind you to blink your eyes. I even hold all of your thoughts and memories. What am I?

10. We give your body support and structure. We also protect your delicate organs, like your brain, liver, and lungs. We are filled with a substance called marrow. What are we?

11. We are blood vessels that send blood back towards your heart. Most of the blood we carry doesn’t have much oxygen left in it. What are we?

12. We are blood vessels that send blood away from your heart to all different parts of your body. We have thicker, stronger walls than veins. What are we?

13. I am sometimes called your “windpipe.” When you breathe, air travels through me to your lungs. What am I?

14. We work in pairs to pull your bones in different directions. We also help move food and blood through your body. Without us, you’d wouldn’t be able to move at all. What are we?

15. I am a tube in your throat. When you swallow, food or drink travels down through me into your stomach. What am I?
ANSWER KEY

Human Body

<table>
<thead>
<tr>
<th>Word Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>brain</td>
</tr>
<tr>
<td>liver</td>
</tr>
<tr>
<td>small intestine</td>
</tr>
<tr>
<td>trachea</td>
</tr>
<tr>
<td>arteries</td>
</tr>
<tr>
<td>heart</td>
</tr>
<tr>
<td>stomach</td>
</tr>
<tr>
<td>large intestine</td>
</tr>
<tr>
<td>skin</td>
</tr>
<tr>
<td>veins</td>
</tr>
<tr>
<td>bones</td>
</tr>
<tr>
<td>lungs</td>
</tr>
<tr>
<td>kidneys</td>
</tr>
<tr>
<td>esophagus</td>
</tr>
<tr>
<td>muscles</td>
</tr>
</tbody>
</table>

1. I have many jobs. I make bile to help your stomach break down food. I also store nutrients your body needs. I also make antibodies to help you fight disease. What am I? liver

2. I take absorb the nutrients that your body needs from your food and I put it in your bloodstream so your body can use it. What am I? small intestine

3. I am a muscle located behind your lungs. I am always moving, and I never get tired. I pump blood to all parts of your body. What am I? heart

4. When you eat, I mix your food with chemicals made by your body, then I churn up your food into smaller parts. What am I? stomach

5. Your body can't use every part of the food you eat. The waste comes to me, and I dry it out so it can leave your body. What am I? large intestine

6. We are a pair of filters that clean your blood. We take liquid waste from your bloodstream and we send it down to your bladder. What are we? kidneys

7. We take oxygen that your body needs from the air and put it in your bloodstream. We also take carbon dioxide that is in your blood and send it out of your body. What are we? lungs

8. I hold your body parts in. I have pores so sweat can escape your body. I am filled with nerves that help you to sense temperature and feel the things around you. What am I? skin
Human Body - ANSWERS PAGE 2

Word Bank

<table>
<thead>
<tr>
<th>brain</th>
<th>liver</th>
<th>small intestine</th>
<th>trachea</th>
<th>arteries</th>
</tr>
</thead>
<tbody>
<tr>
<td>heart</td>
<td>stomach</td>
<td>large intestine</td>
<td>skin</td>
<td>bones</td>
</tr>
<tr>
<td>lungs</td>
<td>kidneys</td>
<td>esophagus</td>
<td>veins</td>
<td>muscles</td>
</tr>
</tbody>
</table>

9. I control your muscles and all of the organs in your body. I make sure you breathe automatically, ensure your heart beats properly, and remind you to blink your eyes. I even hold all of your thoughts and memories. What am I? **brain**

10. We give your body support and structure. We also protect your delicate organs like your brain, liver, and lungs. We are filled with a substance called marrow. What are we? **bones**

11. We are blood vessels that send blood back towards your heart. Most of the blood we carry doesn’t have much oxygen left in it. What are we? **veins**

12. We are blood vessels that send blood away from your heart to all different parts of your body. We have thicker, stronger walls than veins. What are we? **arteries**

13. I am sometimes called your “windpipe.” When you breathe, air travels through me to your lungs. What am I? **trachea**

14. We work in pairs to pull your bones in different directions. We also help move food and blood through your body. Without us, you’d wouldn’t be able to move at all. What are we? **muscles**

15. I am a tube in your throat. When you swallow, food or drink travels down through me into your stomach. What am I? **esophagus**
Dear Diary,

The class is putting on a musical, and we all have to join in. It gets worse: they're making me perform a song. A SONG! Other kids are helping out with costumes and setting up the stage. That sounds much better to me. Well, at least I'll have Ava by my side. She's super excited about our musical number, so I think everyone thinks I am, too. They're probably making us do it because we do pretty much everything else together. But come ON ... we aren't alike in every way. I just want the musical to be over with. Then I'll have time to work on my project for the science fair. I have a really cool idea, but more on that later.

-Emily

Dear Diary,

I get to perform a song in the class musical! I've been wanting to act forever. Emily and I are doing it together, actually, but I wish I could do something on my own for once. The class really wants us both to do the song ... after all, it is called "Double Trouble." The thing is, I could easily play both parts. I don't think Emily wants to do it anyway. She hates that sort of thing. Don't get me wrong—it's awesome to have a built-in best friend like Emily. It's just so annoying when the class calls us "Avaly" like we're one person. I know Emily doesn't like it either. Anyway, we start practicing tomorrow, and I can't wait. I'll tell you how it went soon!

-Ava
1. Who are Emily and Ava?

2. What are Emily and Ava feeling frustrated about?

3. Why does the author include two diary entries in the passage?

4. Why did the author title the passage “She Isn’t Me!”?

5. How do the illustrations support the main idea of the text?

6. How are Emily and Ava similar? How are they different?

7. What do Emily and Ava want other people to recognize about them?

8. How are you similar to and different from your classmates?

What makes someone an individual?
Write about what makes someone an individual.
Include examples from the passage and your own life.
## Record your results

<table>
<thead>
<tr>
<th>Trial</th>
<th>Number on ruler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial #1</td>
<td>_______________ cm</td>
</tr>
<tr>
<td>Trial #2</td>
<td>_______________ cm</td>
</tr>
<tr>
<td>Trial #3</td>
<td>_______________ cm</td>
</tr>
</tbody>
</table>

## Rule #1
Droppers must hold the ruler so the 1 cm mark is between the Catchers’ fingers.

## Rule #2
Catchers can’t move until they see the ruler drop.

## Circle the picture by your fastest reaction time

<table>
<thead>
<tr>
<th>Picture</th>
<th>Distance on ruler</th>
<th>Time it takes for the ruler to fall this far</th>
<th>That’s the same time it takes...</th>
</tr>
</thead>
<tbody>
<tr>
<td>✨</td>
<td>0 - 5 cm</td>
<td>less than 100 milliseconds</td>
<td>...for a ROCKET SHIP to travel a ½ mile</td>
</tr>
<tr>
<td>👀</td>
<td>6 - 10 cm</td>
<td>100 to 140 milliseconds</td>
<td>...for a BLINK of an eye</td>
</tr>
<tr>
<td>⚡️</td>
<td>11 - 15 cm</td>
<td>140 to 180 milliseconds</td>
<td>...for a LIGHTNING BOLT to travel 10 miles</td>
</tr>
<tr>
<td>🐆</td>
<td>16 - 20 cm</td>
<td>180 to 200 milliseconds</td>
<td>...for a CHEETAH to run 20 feet</td>
</tr>
<tr>
<td>🥳</td>
<td>21 - 25 cm</td>
<td>200 to 230 milliseconds</td>
<td>...for a SNAP of the fingers</td>
</tr>
<tr>
<td>🚗️</td>
<td>26 - 30 cm</td>
<td>230 to 250 milliseconds</td>
<td>...for a RACE CAR to drive 85 feet</td>
</tr>
</tbody>
</table>

1000 milliseconds = 1 second
Place Value & Expanded Form

Fill in the missing numbers in the box. Then write out the place values on the line provided.

1. $610 = \underline{600} + \underline{10} =$

   Six hundreds, one ten

2. $346 = \underline{\hspace{1cm}} + 40 + \underline{\hspace{1cm}} =$

3. $967 = \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + 7 =$

4. $5485 = 5000 + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} + \underline{\hspace{1cm}} =$

5. $2094 = \underline{\hspace{1cm}} + 0 + 90 + \underline{\hspace{1cm}} =$
Place Value & Expanded Form

Fill in the missing numbers in the box. Then write out the place values on the line provided.

6. 3912 = □ + 900 + □ + □ =

7. 10,495 = 10,000 + □ + 90 + □ =

8. 92,401 = □ + □ + □ + 1 =

9. 668,935 = □ + □ + □ + □ + 30 + 5 =

10. 304,598 = □ + □ + 500 + □ + 8 =

Find worksheets, games, lessons & more at education.com/resources
© 2007 - 2020 Education.com