

Historical Lesson: Grade 5

A.T Still and Benjamin Rush and the Nervous System

Objectives:

Students will discover the significant role that A.T. Still and Benjamin Rush played in the history of medicine.

Students will explore the connection A.T. Still and Benjamin Rush had to the Nervous System.

Materials:

- Zip lock bags
- Pens that can be taken apart
- Internet access
- Optional:
 - Model Brain (available in kit)

Background information for the teacher:

For information on A.T. Still please visit...

<http://www.kcom.edu/load.asp?url=/newmuseum>

For information on Benjamin Rush please visit...

<http://www.uua.org/uuhs/duub/articles/benjaminrush.html>

Vocabulary:

Osteopathy

Doctor of Osteopathy

Psychiatry

Engage

Organize students in groups of 3. Give each group a zip lock bag. Inside each bag have a pen that has previously been taken apart and is in pieces. Remove one part (not the ink) from each bag which will result in each pen not working.

Tell the students that you want to see which team can put their pen back together the fastest and the pen must work. Do not mention that they are missing a piece and none of their pens are going to work.

After the students start discovering there is a problem, insist that everything should be there and they need to keep trying.

After the students have tried very hard to put it together explain that this is similar to the body. When one part of the body isn't working or functioning properly the whole body is going to have problems and not work properly.

Ask: How many parts does your pen have? (Let the students count)

What happens when one part is missing or is broken? (The whole pen doesn't work properly.)

Would you still be able to use the ink to write? (Yes)

Would it be more difficult? (yes)

This is similar to the body. If one part of your body is not functioning properly your body will probably still work but it isn't going to work perfectly.

Explore:

Have students stay in their groups or if you choose they may form new groups.

Have each group answer the following questions:

- When do you feel at your optimal health?
 - What does feeling well mean?
 - Are there different parts to feeling well? If so, what are the different parts?
- After the groups have written down answers for those questions have them answer the following question: If there is nothing physically wrong such as a cut or broken leg can you still be ill or not feel well?

Discuss answers as a group.

Explain: We have been talking about the brain and the nervous system in previous lessons. When we don't feel well there are many different parts to not feeling well. We may have a physical problem (ex. a cut) or a mental problem (ex. something wrong with the way the brain is functioning, a common one is depression).

Explain:

There are two very important people in our history that have changed the way we live today.

Write the following names on the board. A.T. Still and Benjamin Rush. Ask the students if they know any information about these individuals.

Explain: First I am going to tell you about A.T. Still. A.T. Still was a doctor during the

1800's. He was first an MD just like the doctor you think of. However, he believed medicine was more than doing surgery, prescribing drugs, etc... He thought there was more to the body than just physical problems. He believed that there are three parts to optimal health. The first part is the body or the physical part of health. The second part is the mind or the mental part of health, and the last he believed was the spiritual part of health. His theory was that to help people feel better you must look at the Mind, Body, and Spirit.

With his new ideas he created the idea of Osteopathy. He simply thought that to help people as a doctor he must focus on all three aspects of health; mind, body, and spirit. He not only created the idea of Osteopathy but found that his methods were working and he eventually opened a school. Today there are many doctors of Osteopathy. They are just like the doctors you go to and your doctor may be a doctor of Osteopathy. However, their belief about health is that there are three parts; mind, body, and spirit.

Benjamin Rush is another important person. He is considered the "Father of American Psychiatry". In fact, he published the first textbook in the U.S. on mental illness called *Medical Inquiries and Observations upon the Diseases of the Mind* (1812). Rush was an advocate of forced psychiatric treatment. One of Rush's favorite methods of treatment was to tie a patient to a board and spin it at a rapid speed until all the blood went to the head. An Asylum meant refuge or shelter. The first mental asylum was opened in 1769 by Benjamin Rush. His hospital was in Virginia and was the only asylum like this for about 5 years. He was very interested in the mentally ill. There were two groups that he divided people into: general intellectual derangement and those who only seemed to have partial problems. Rush did not believe in using restraints. He said whips, chains, and straitjackets should not be used. He had new methods which seem bad as well but for his time his methods were much nicer.

He used a tranquilizing chair. This was made to hold the body immobile for long periods of time. The intent was to relax the body and pulse. He also used a gyrator. It looked like a pole on a wheel. The patient would be strapped on and rotated at a high speed so the blood would rush to the patient's head. The intent was to relieve a "congested" brain.

Expand:

Think about mental health. Think of your brain as the pen from the beginning of the lesson. If one part of the brain is not functioning properly what happens to the rest of the body?

Explain: We are going to talk about mental health. There are many different parts of the brain and each part plays a unique and important role in our normal functioning.

Our bodies are very complex and each part has an important role. If one part isn't functioning properly it affects the whole body.

Explore the brain. Show the students a picture of the brain or let them hold a model brain (available in kit).

Assign the students the following tasks. You may assign this as homework or choose to do it in class. Students must visit the following website...

http://kidshealth.org/kid/body/brain_SW.html

At this website students are to explore different parts of the brain. The website discusses the cerebrum, cerebellum, brain stem, pituitary gland, and hypothalamus. Students are to read and take notes about each section. Have students individually draw the brain and label each part they read about on the above website.

After taking notes individually have the students get back in their original groups and write one question about each part of the brain they read about on the website. Remind students that they will be graded on how well they write their questions.

Discuss: Does the brain affect our health? Is the brain a part of our health? Does the brain (our mental health) affect our physical health?

Evaluate:

* Collect the student's notes about the website and their drawing of the brain.

*Write a test question about A.T. Still and Benjamin Rush. Create a test from all the group's questions. Let the students take the test individually or as a small group.