1. Objective/ Purpose/Rationale
By the end of this lesson students will be able to explain how their muscles impact daily movement and health as assessed by…

2. Link to Standard and Essential Questions
Physical Education. Standard 2: Demonstrated understanding of movement concepts, principles, strategies, and tactics as they apply to the learning and performance of physical education.

3. Purpose:
The purpose of the lesson is for the students to be introduced to muscles and their use in everyday life/activities. Students will learn what muscles are, what they do, why we need them and how muscles impact physical activity and general health.

4. Declarative and Procedural knowledge to be included in lesson
Declarative
• Muscles are tissues that are composed of fibers that contract to affect bodily movement.
• Concentric: muscle contraction
• Eccentric: muscle expansion
• Physical activity is important to maintaining good health
Procedural
• Students will follow directions on activity sheet
• Students will follow directions in participating in the anticipatory set activity

5. Method/Strategies Used and Rationale
We will use active learning to enhance the students understanding of muscles. We will have them participate in a balancing activity and also brainstorm ideas on how to apply this knowledge to everyday life. We will be also be checking for individual accountability with the use of a worksheet, random number selection and exit cards.

6. Differentiated Instruction
Max is in a wheel chair, so he will have to differentiate the balancing activity for him. Instead of having to stand-up and lift a chair, we will put a text book on a chair and have Max lift the book. The first time he is allowed to bend, the second time he must keep his back straight. This way Max will still feel the differences in tension that the other students are experiencing.
7. Activating/Checking Prior Knowledge of Students
(0-2 min.) Students will be given a list of facts about muscles on an overhead. Their job with the person sitting next to them to decide what the topic of the unit will be. They will use think-pair-share to discuss with their partner. Each clue will be given one at a time. Students will not be able to raise their hand with the answer until all the clues have been given.

Clues:
1. Every person and animal has at least one of these in their body.
2. These make up more than 40% of your body weight.
3. There are more than 600 of these in your body.
4. Every time you move you use them.

Muscles are something we all have in common. No matter what your culture or race might be we all have the same number and kind of muscles.

8. Anticipatory Set:
(2-3 min.) Short activity: Working in groups of two, one student will place their palms up with elbows at their sides. The other partner will place their hands on top with palms down and exert pressure. The student on the bottom will try to counteract the pressure. Have partners reverse roles. This will lead into the lesson of the day.

9. Chronology of Lesson
Following the anticipatory set, we will introduce the topic of our unit.

Muscles
• (3-4 min.) We will ask students what word comes to their mind when they hear the word muscle. Ask students not to repeat the same word. We will randomly select five student numbers previously assigned in order to determine who gives an answer.

• (4-5 min.) We will formally define muscles my writing the definition on the board prior to class behind the overhead screen. Muscles are tissues that are composed of fibers that contract to affect bodily movement.

• (5-7 min.) What muscles do? Use rubber band to show class how muscles contract and expand. Relate rubber band movement to anticipatory set. Introduce concentric and eccentric contraction. Concentric: show rubber band shortening, when the muscle fibers shorten the muscle length get shorter and contracts. Eccentric: show rubber band lengthening, when the muscle fibers lengthen and the muscle length gets longer and expands. Practice using bicep to show concentric and eccentric.

Activity
• (7-13 min.) Balancing activity: Each person will be doing this activity independently. You will need your worksheet and chair. This is an opportunity for you to work on following written directions independently. Raise your hand if
you need help. Carefully follow the directions in each step and in the results box explain what happened during the step. When you have completed steps 1-4 on the worksheet sit back down at your desk and finish questions 5 and 6. When you have completed the worksheet put your pencil down to show us you are done. Reflect on activity: Randomly choose one student number per result to explain what happened. Before moving on to the next results ask if anyone had a different experience that wants to share. Randomly choose one student number for questions 5 and 6. Pause in between questions for additional student comments.

Physical Activity

• (13-15 min.) As you can see from the activity muscles play a key roll in movement. Have you ever heard the phrase “Move it or Lose it”? What do you think this phrase means? Ask for volunteers. Explanation: If you do not use your muscles on a regular basis your muscle can become limited in movement and flexibility.

• (15-18 min.) Through movement and physical activity there are many benefits. Such as decreased risk of diabetes, maintain a healthy weight, preventing other diseases. Pass out note cards. Write down two or three ways you plan on using your muscles to stay physically active. You will be turning in your cards as you exit the room.

10. Closure

• (18-20 min.) Turn to the person next to you and discuss what you learned today. Have the partner with their birthday closest to today write one thing on the front board. Review what was written as a large group.

11. Assessment

Throughout the lesson we will check student understanding by randomly selecting students to answer questions. We will also collect an activity worksheet, exit cards and have students write on the board.

12. Independent practice by student

No homework will be collected or assigned on the first day of this unit.

13. Resources/ Material


Chairs
Rubber bands
Text book for Max
Note cards
Numbers for students
Clues overhead
Clues

1. Every person and animal has at least one of these in their body.

2. These make up more than 40% of your body weight.

3. There are more than 600 of these in your body.

4. Every time you move you use them.