



STEAM &Sports

Lesson 2 - Correcting bad posture with exercise

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Correcting bad posture with exercise

Concept

This lesson is the continuation of the first lesson where students will use the results of the postural screening to decide which is the most often type of bad posture. Using various exercises they will engage in a physical workout, from the easiest to the most complex. Students will:

- (Biology) Understanding the activation of muscles used in movement through physical activity
- (Physical Education) Learn different exercises that can help them in correcting bad posture

Learning objectives and Outcomes

Upon completion of this lesson, students will know:

1. How different muscles move when making exercises
2. Exercises that can help them to correct abnormalities on their body

After this lesson, students will be able to:

3. Help other students or people with advices about using physical activity as a tool for a better posture and health

Methodology

1. Information gathering
2. Creating an exercise program
3. Reflection and discussion on exercises done



Educational standards in connection with sports

- Understanding the importance of physical activity throughout life and how inactivity worsens health
- Understanding the amount of physically inactive population and health issues that occur.
- Improving teamwork by creating a workout plan.
- Learning to use the knowledge acquired through lessons to use in everyday life.

This lesson includes elements of these school subjects

1. Biology
2. Physical Education
3. Art & Photography
4. Informatics

Timeframe

45 min

Students Age

10-15 years

Material needed

1. Biology books, PC / laptop / phone for using the internet to find out the best exercises for the specific postural problem
2. Notebooks in which to write the exercises and workout plan
3. Phones to photograph / record exercises
4. Sport equipment that may be used for exercises such as elastic bands, dumbbells, TRX, bench, rope, mats etc.

Short description of the content

Students will decide based on results from first lesson which bad posture is the most occurring in their class and after deciding they will search books and the internet for best exercises that target muscles needed to be strengthened to correct the posture. For example due to phone usage, lack of physical activity, malnutrition and bad posture during sitting most students had signs of kyphotic bad posture. The common sign is that the shoulders are closing together and are tilting forward while the head is protraction. In this position chest muscles are shortened and back muscles are stretched. Exercises that the students should search for are types of pulling movements to engage the back muscles and exercises of stretching the chest muscles together with shoulder muscles. After writing the exercises down they decide how many repetitions there should be and how many sets of the exercise. They photograph and record themselves doing the exercises without sport equipment then with different sport equipment = from easiest to the hardest. Example doing a pull motion with TRX that is tied to a wall is an easier exercise than pulling motion done with weights. Photographs and recordings of exercises will be saved for later to use for the next lessons

Sequence of Lesson

Exercise plan:

Students explore the internet and pick exercises that are related to the most problematic bad posture in their classroom. They write down the exercises and line them from the easiest to the hardest. The teacher can assist them with creating the plan with suggestions of exercises, repetitions and sets for each exercise and having in mind the possibilities of doing those exercises depending on the sport equipment their school has. The exercise part will contain a warmup and mobility exercises to better prepare for the main part of doing the postural exercises



The exercise:

Students can warmup either by playing a game or running laps. The important thing is that the warmup is indeed a warmup and that their body temperature rises so the risk of injury is decreased, and their muscles and joints are prepared for the exercises. This will be even further accomplished with the mobility exercises after the warmup which will consist of exercises from top to the bottom meaning they will do exercises with head, shoulder, upper body – trunk, hips, knees and ankles. Upon completing the warmup and mobility students now do exercises that they wrote in their plan. They can work in pairs where one student can do one set of the exercise while the other one photographs and records for later use then they switch roles. After completing all the exercises they wrote in the exercise plan they will have some time to cooldown. Students will sit in a circle and discuss the exercises that they have done, what is their favorite exercise, what is their least favorite exercise, which one was the hardest, which one is the easiest. Which muscles did they feel the most while doing them. Photographs and recordings gathered can be later on used to have a database of exercises specifically chosen for certain posture issues.

Lesson Developer

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Date: ožujak, 2025.



Tips for age group differentiation (for older/younger kids than indicated in the lesson)

Younger students will use the knowledge gathered in the first part of the Lesson 2 - Happy & Healthy through good posture to find exercises that they think use various parts of the body. Example is - younger students know that the lower part of the human body contains legs and feet so they will know that the exercise called squat uses those parts of the body. They will then find various exercises, write them down, and write / say which body parts are active during those exercises. They will also try those exercises themselves to better understand the activation of the body parts and benefits of a workout.

Older students will do the objective that is mentioned in the lesson - postural screening in a similar way that the younger students did their research for exercises. They will screen each other to see if any deformities exist, they will write them down and then they will gather and type down exercises that they think use the muscles that appear to be weak and create the postural problem.

To which SDG(s) does the lesson relate most



SD3: Good Health and Well - being

The lesson because of its goal is giving the students knowledge and inspiring them to exercise in order to improve their health. The students are able to recognize by looking at someone or themselves what part of the body, what muscles is perhaps weak or small and then have the knowledge to understand what type of exercise can help in growing and strengthening it. Not only that but the already mentioned method of screening for postural problems and then solving those problems through workouts.



SDG 4: Quality Education

Already mentioned in first part of the lesson how the knowledge can affect the person and improve their quality of life. There are also scientific research that proves that physical activity is correlated with cognitive performance meaning people that train also have better results in studying.



SDG 5: Gender Equality

Already mentioned but wanted to mention it again, everyone does everything and no one has an advantage.

What Inclusivity and Accessibility measures can or should the teacher take for this lesson

For this part of the lesson. In case there are students that have physical disabilities they should still participate in the form of doing postural screenings and writing down the postural problems they see. In case where the student isn't able to write / type down the results he / she can orally say what they see and think is the postural problem of other student. The goal is for everyone to be able to participate. If a student isn't able to do the exercises then he / she can count the repetitions of the student that does the exercise like he is roleplaying as a PE teacher or a coach. If a student has a mental disability that doesn't allow him to do the theory part of the lesson. He / she can perform various exercises that the students acquired through research. If needed, a teacher or a student can help him in those exercises by giving him a visual demonstration of the movement so he / she understands it easier and then tries it him / her self

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