# Instructional Lesson Plan

## *Overview*

### Lesson Plan Overview

***Lesson Author:*** Alfred Vasta ***Date:*** 11/7/19 ***Grade Level:*** 9th

***Lesson Title:*** Energy IN and Energy OUT ***Subject Area:*** Energy Balance

The students will first warm up in squad lines. For this lesson the students will discuss and do activities that have to do with energy balance and healthy food choices including hydration.

## *Standards*

### Lesson Plan Standards

**Standard 4:** The physically literate individual exhibits responsible personal and social behavior that respects self and others.

**Standard 5:** The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction. **(Affective Domain)**

## *Instructional Objectives*

### Instructional Objectives

**Objective**:

**Energy Balance**

9.5 The student will explain the importance of energy balance and evaluate current caloric intake and caloric expenditure to maintain optimal health and prevent chronic disease.
a)Explain the body's physiological response to sugar, sodium, and fat. (cognitive domain)
b) Assess and analyze current energy balance, to include intake and expenditure, activity levels, food choices, and amount of sleep**. (cognitive domain)**

c) Design and implement a plan to maintain an appropriate energy balance for a healthy, active lifestyle, to include intake, expenditure (levels of intensity), and sleep.
**(psychomotor domain)**

## *Focus*

### Enduring Understandings

It is important for me to know and understand all about energy balance (energy in vs. energy out).

It is important that I know the difference between healthy food choices and none healthy choices.

It is important that I know the importance of drinking lots of water.

It is important that I know how much water I need to drink.

### Essential Questions

What does energy in mean?

What does energy out mean?

How much water should I drink to be healthy?

What are some good (healthy) food choices?

## *Procedures*

### Lesson Set

Learning Target: I can understand that energy in (food intake) and energy out (physical activity) is the essential component of Energy Balance.

I can choose good food choices that help with hydration and energy balance.

### Rationale

Why energy balance is so important. When you're in a positive energy balance (more in than out) and when you're in a negative energy balance (more out than in), everything from your metabolism, to your mood is impacted. It is important that our students know that what you put in your body has a direct impact on how you feel and perform in all aspects of life. Eating healthy and staying hydrated is something that is important for everyone to live a long healthy life.

### Techniques and Activities

1. **Organization/transition**: Once entering the gym the students will go to their squad lines and do their warm up activity. Ten Ten's
   **Equipment**: TEN TEN'S poster or projector to show exercises on wall
   **Activity (5-8min)**: TEN TEN's warm up= students will do ten exercises each exercise 10 times (ie. 10 jumping jacks, 10 push-ups, 10 jog in place and so on) once the students have

completed all ten exercises they start over. Students will continue to do warm up until teacher instructs them to stop. During warm up teacher will explain to the children that these are some exercises that they can do at any time for energy out.

2. **Organization/transition**: After the warm up the students will gather in and will be given a quick review of energy in and energy out, as well as the importance and level needed of hydration.
   **Equipment**: projector possible for information on energy balance and hydration.
   **Activity (1-5min)**: review students will be gathered in and sit and listen for the review before the main lesson.
3. **Organization/transition**: The students will be rotating to stations using the information they learned all about energy balance and healthy food and hydration choices. The gym or outside area will be sectioned of into three different areas. Each section will look the same with a start cone and an end cone, with an activity at the end line or cone. The students will rotate from one zone to the next when instructed by the teacher. The teacher will depending on time rotate the students so each group of students gets even amount of time at each station. Teacher can put as many cones as needed at each station depending on class size.
   **Equipment:** Cones (for beginning and ending lines), scales, bean bags, desks or something else to clean, sponges, food cards, small trash cans.
   **Activity (15-20min)**: **Station 1: Energy in – Energy out**: For this activity the students will work on the importance of balancing “energy in” (food eaten) with ‘energy out” (energy used by the body) to maintain a healthy weight. Students will run from the start cone to end cone and choose a food card, following the directions on the card by placing the appropriate number of bean bags on the left side of the balance scale (if you don’t have a balance scale (energy in)( use two scales that show the same weight). After they do that the students must refer to the energy in-energy out chart and do the exercise that corresponds to the number of beanbags they placed on the scale. As the students do the exercises you or another student can place the same number of bean bags on the right side (or other scale) (energy out) to represent that the students are reaching an energy balance by balancing energy in with energy out. Talk with the students about how foods with more calories require them to do more exercises. Also talk with the students on what happens when there is an imbalance for example if you ate bag of potato chips (add 3 beanbags) than you marched for 5 minutes (add 1 beanbag), you are taking in more energy than you are using so you probably will gain weight.
   **Station 2: Trash the bad Bag the good**: For this activity the students will work together to gather all the cards they feel are good and trash the ones they feel are bad. On the start signal one student at a time will run from the start cone to the end were they will put a bad food card in the trash and bring a good food choice back to their team at the start cone. Discuss why the students choose to trash and save what foods they did.
   **Station 3: Spongy Hydration:** On the go signal the students will take turns running down to the end cone, where there will be a desk or some sort of board that needs to be cleaned. Each student will first use a dry sponge. On the second round the students will be able to wet the sponge. Talk with the students on how hydration made it easier and that is how your body works. Can talk about what is best to hydrate your body with (water vs sports drinks).

## Lesson Closure

Ask the students did they have fun today. Ask the students what energy balance means to them. Ask the students how much water should they be drinking each day? Ask students what activity was the most challenging?

### Assessment/Evaluation

One assessment in this lesson will be peer (students will assess each other throughout group activities).

Also the students will be formatively assessed by the teacher as they participate in all activities.

### Differentiated Learning Activities:

### Extension and Remediation for Diverse Special Learners

Extensions for the activities could include more difficult exercise. Students groups can be rearranged as needed to help those having trouble. Remediation will include stopping the activity and giving hints to help students solve the problem. Also, demonstrating how the activity should be performed. I will give diverse learners more help when needed (added cues or verbal prompts). Break the activity down step by step, after letting students try it on their own. The environment will be set up with visual aids if needed.

## *Reflection and Reaction*

### Personal Impact on Student Learning

These are fun activities that students will enjoy playing with friends and classmates while learning the importance of energy balance. Were the activities too difficult for the students? Did students understand that healthy food choices correlate with good energy balance? Were the activities too challenging for the students? Did I give good instructions for each activity?