Grade 2 Sample Lesson Plan:
Unit 3 – Heart Course

SOLs

K.1.b Recognize the need for regular physical activity.
K.2.i Recognize how the body's parts work together.
1.1.a Identify body structures (e.g., abdomen, chest, head) and organs (e.g., heart, brain, lungs, stomach).
1.1.b Describe how body systems work together (e.g., cardiovascular, digestive, immune, muscular, nervous, skeletal, respiratory).
1.2.a Describe the importance of having a healthy heart, brain, and lungs.
1.2.b Select behaviors that help keep the heart, brain, and lungs healthy.
2.1.a Identify structures that form body systems, to include the heart and lungs (cardiorespiratory system), bones (skeletal system), and muscles (muscular system).
2.2.a Identify possible consequences of not caring for cardiorespiratory, skeletal, and muscular systems.
2.2.c Explain how regular physical activity and healthy eating habits and food choices keep the cardiorespiratory, skeletal, and muscular systems healthy.
3.2.c Describe the components and function of the cardiorespiratory system, to include heart, lungs, and blood vessels.
4.2.a Identify and describe the major components of the cardiorespiratory system, to include heart, lungs, and blood vessels
5.2.a Identify components of major body systems, to include cardiorespiratory, vascular, muscular, and skeletal.

Objectives/Goals

- The student will be able to identify the heart and lungs.
- The student will be able to describe how the heart and lungs work together.

- The student will be able to explain that the heart and lungs send oxygen to the body.

Materials

Approximately:

- 23 Mats (more if you don't have tarps hanging on a volleyball net)/cones
- Parts of heart signs or posters
- small balls or something else to act as oxygen
- 2+buckets for small balls
- Scooters (optional) for maze portion
- Scooters and Cones for 02 relay (optional)
- Oxygen signs (see picture in section 3 for example)(optional)
- IPADS (optional) for stations
- Projector & Laptop (optional) for video portion
- Balloons (optional) symbolize cholesterol in Arteries
- Balance beam (optional) for maze portion
- Climbing Mats (optional) for maze portion

Procedure

- Students should be broken into groups as they enter the Heart Day area.
- This lesson can be done any number of ways depending school logistical needs.
- For purposes of this lesson we have 3 stations, however stations can be added and taken out based on school.
- Each group of students goes to a different station where a staff member and volunteers will lead that activity with them. After 15 minutes those students rotate to the next station so that they have done all 3 stations.
    - The 3 stations are as followed:
        - Heart Maze - Gym
        - IPADS exploring the 3D heart - Hallway outside of gym
        - 02 relay – empty classroom, hardtop, Café or other available space

Heart Maze:

Students enter gym and stop at designed cones illustrated in the attached map. While students are waiting for their group to go through the maze students can look at pictures posted on the wall such as heart healthy foods or have a guest speaker like a nurse or cardiologist. Have either a staff member or volunteer escort the students in small groups of 5-10 through the maze. The maze can have different obstacles to allow the students varying challenges while traveling through. Some examples are balance beams, scooters, climbing mats and tunnels. Those

staff/volunteers would stop at each heart sign/poster to show the students where in their heart they were currently located. At the end of the maze students will sit behind a designed cone waiting for their group/class to rotate to the next station. While they are waiting you can have a video playing reinforcing everything the students learned in the maze and helping with keeping the students focused on what they learned while waiting. Some example videos are:
https://www.youtube.com/watch?v=-s5iCoCaofc&disable_polymer=true
https://www.youtube.com/watch?v=tF9-jLZNM10
https://www.youtube.com/watch?v=IlCqzr6UAPM&t=66s

IPAD - Explore the 3D Heart

Ideally have enough IPads for a 1-2 ratio. However slightly larger groups are acceptable as well. At this station have the staff member and volunteers utilize and explore the app called Explore the 3D heart. It allows students to see the different parts of the heart, explore them and then see how they are affected by different levels of cholesterol and blood pressure.

02 Transport – circulatory system

Setup a 2 cones about 15-30 feet apart. At the furthest cone there should be a mat or carpet square. The first cone represents the heart & Lungs, the other cone with the carpet square/mat represents a muscle in the body. Have 1 student at each of the cones and another at the carpet square/mat. The student on the carpet square is doing an exercise (curl-ups, push-ups, jumping jacks, etc). The student at the cone next to them is counting how many of the exercise they do.

The final student who is across from the other students at the heart & lungs cone will ride a scooter carrying a sign representing oxygenated blood. When they arrive they hand the sign to the student doing the exercise who flips the sign and goes back to the first cone (heart & lungs) carrying the Carbon Dioxide. The counting student becomes the exerciser and the final student becomes the new counter. This rotates until all students' play each role a few time. Reinforce with the students after on which role they played at which points to understand that the heart sends Oxygen in the blood to the muscles which sends carbon dioxide back to be exhaled from the body. Check for understanding by observing each student during the activity to make sure they are holding the sign the correct way going to the muscle (oxygen) and to the Heart & Lungs (Carbon Dioxide). (Five for Life, 3rd edition, p.1.33)

Assessment Idea

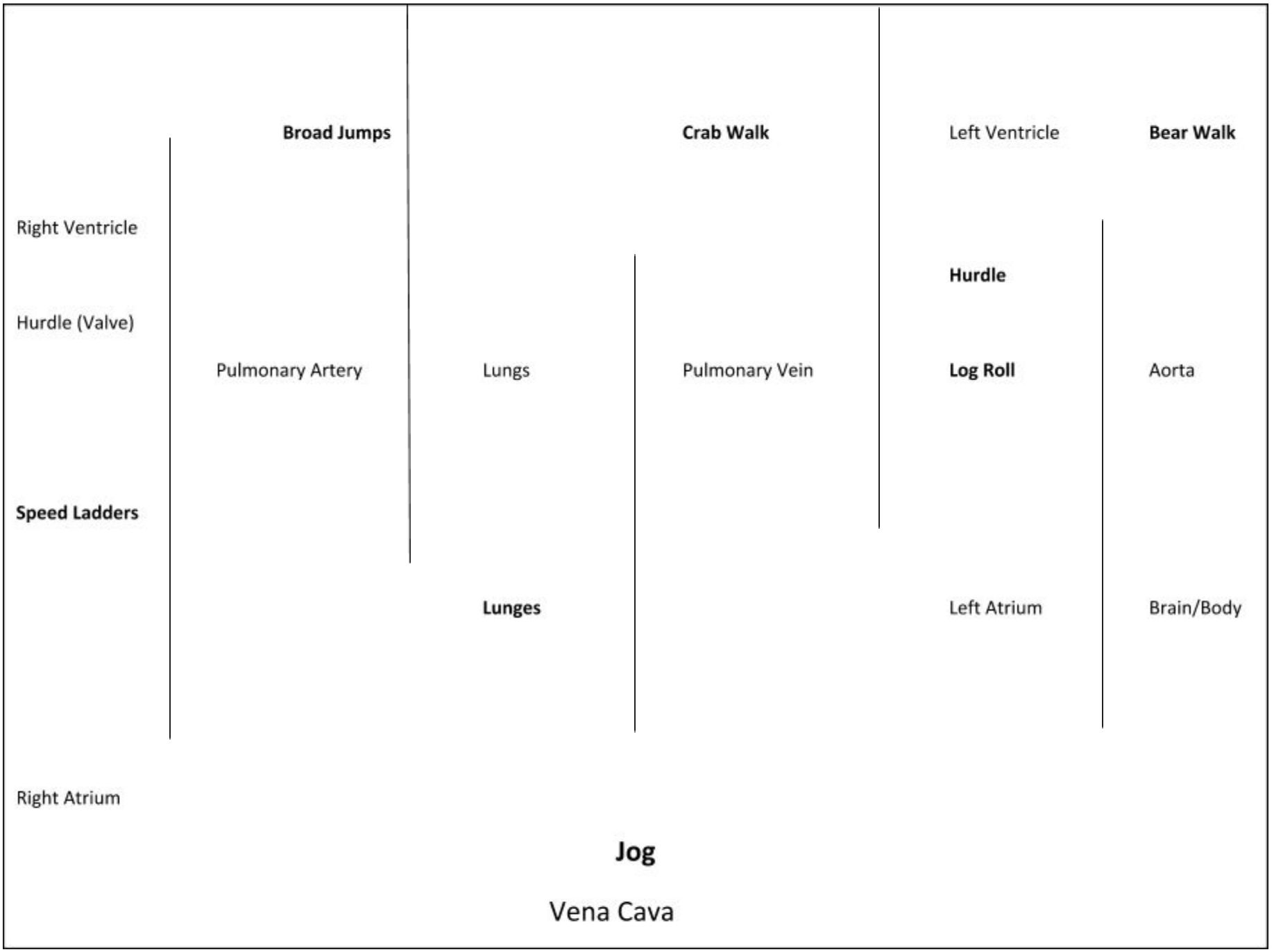
- Written assessment is attached. Can also convert to plickers, or an exit ticket to check students learning.
- Poster ideas: included in PowerPoint attachment (similar to a map in an amusement part with the "you are here" adds a nice touch that helps students see where they are at and where they are going.

References

- Karen, C., Lathrop, B., Lutz, A., Murphy, C., & McNally, J. (2011). *Five for life 3rd edition*. Spokane Valley: Focused Fitness.
- Heart Video - AboutKidsHealth: https://www.youtube.com/channel/UCvHCw-Pc9Cl9VeZrvEVldEw?disable_polymer=true
- Heart Video 2 - SciShow Kids: https://www.youtube.com/channel/UCRFIPG2u1DxKLNuE3y2SjHA?disable_polymer=tr ue
- Heart Video 3 - Homeschool Pop: https://www.youtube.com/channel/UCfPyVJEBD7Di1YYjTdS2v8g?disable_polymer=true
- Explore the Heart in 3D available for Free in both the Itunes and Google play store.
    - Itunes: https://itunes.apple.com/us/app/explore-the-heart-in- 3d/id520392909?mt=8
    - Google Play: https://play.google.com/store/apps/details?id=com.catfishanimationstudio.Heart Preview&hl=en_US

Handout

The next page includes a handout for the lesson. The handout is designed for print use only.


Broad Jumps
Crab Walk
Left Ventricle
Bear Walk
Right Ventricle
Hurdle
Hurdle (Valve)
Pulmonary Artery
Lungs
Pulmonary Vein
Log Roll
Aorta
Speed Ladders
Lunges
Left Atrium
Brain/Body
Right Atrium
Jog
Vena Cava

Name_____ Group_____

1. The heart is a muscle that gets stronger.

2. The heart pumps blood through the body.

3. The lungs take in oxygen when you breathe.

4. Circle the activities that make the heart stronger.

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