

Lesson Plan

NEUROHEADWAY

Neuroscience Into Education

Heart and Vessels – Part 2: What is the blood pressure?

The aim of the lesson:

- 1) to repeat the main heart function and its anatomy;
- 2) to find out the physical expression of the heart function.

Resources:

- 1) multimedia to show the video
- 2) stethoscope, arterial blood pressure meter
- 3) paper, pen and ruler

Slide	Subject	Description	Time
1–3	Intro to session	Brief review on the last lesson of heart anatomy and function (short video and explanation) and short introduction on arterial blood pressure.	10-15 min.
4	Activity: Trial 1	Measure your friend's arterial blood pressure and write it down. Ask your friend to do some physical activity (e. g. 20 squats) and measure his/her blood pressure again. Write it down. Is there a difference? Why?	15
5	Trial 2	Draw the diagram of the arterial blood pressure change in the students of your class (not obligatory for lower abilities students).	15

6	Trial 3 (for G+T)	Calculate your friends mean arterial pressure before and after physical activity according to the formula $\text{MAP} = \frac{\text{SBP} + 2 (\text{DBP})}{3}$	15
7	Review and Questions	Students will have time to review each other's diagrams. Provide clarification to student's questions and maybe offer some sources for extra information if wanted	5
8	Extension	1) Find and read what is the normal blood pressure? 2) Measure the blood pressure to your parents, grandparents, other elderly persons in the family or maybe in the neighborhood. Is it high? Does your "patient" take medications for blood pressure? Ask how does he/she feel when the blood pressure is high? And what is the feeling, when it is low?	