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Title: Health Vitals and the Human Heart

Subject Area: Health sciences, Medicine

Learning Activity Description: Students will be learning about the four major health vital signs that health professionals use to assess patients’ health. Students will practice measuring vital signs on their peers and will be able to observe real-life anatomy of a sheep heart for visual reference.

Lesson Activity Objective: This lesson is intended to help students learn a basic, yet critical, aspect of the health professional’s physical exam and be able to tie it back to basic concepts about human anatomy and physiology regarding the heart. Through interactive, hands-on practice, the lesson is intended to hopefully spark an interest and encourage students who may want to pursue a future career in medicine, health or healthcare as they move forward in their education.

Lesson Activity Outcomes: Students will be able to identify the four major health vital signs, understand how to take a blood pressure and appreciate how crucial heart function is to one’s own health.

Materials/Supplies Listed: PowerPoint presentation, stethoscopes, pens/pencils, worksheets

Teacher Procedures:
1. Have students sit in even-numbered groups (TBD on the day of the event, depending on the total number of session participants)
2. Students will listen to a short presentation explaining some basic information regarding the heart and vital signs.
3. Small-group leader volunteers (2nd-year WSUSOM medical students) will each take a small-group and provide instructions on how to take pulse and blood pressure using stethoscopes. Students will be encouraged to ask questions about the session topic or college, medical school, etc.
4. Staying in their small groups, students will observe a real-life sheep heart dissection on the screen.
5. Under the guidance of the small group leaders, student groups will go through several case scenarios on vital signs, along with larger-group discussions of each.
6. Session will end with a short wrap-up and Q&A, giving students an opportunity to ask about college, medical school, medicine and beyond.
**Preparation Time for Learning Activity**: 1 hour

**Room set-up**: Room should be set up with individual student desks laid out in lecture format. One table in the front of the room. Desks should be portable so that students can form small groups with their respective medical student leader.

**Group Strategies (example, group size, expected time for groups, etc.)**: Students will start off as one large group and will then break up (midway) into smaller, even-number-sized groups, each with an assigned medical student volunteer for the remainder of the session.

**Student Products/Artifacts/work pages**: Attached.

**Assessment Criteria/Rubric**: Large-group, plenary discussion at the end to go over case scenarios with students answering questions within their respective small groups.

**Closing/Transition to next activity**: N/A
**MEASUREMENTS**

**BODY TEMPERATURE**

97.8 – 99°F

**NORMAL RANGE**

97.8 – 99 degrees F

**PULSE**

In 15 sec:
Per Minute:

60-100 BPM (Beats per min.)

<60 BPM → Bradycardia (Slow)

>100 BPM → Tachycardia (Fast)

**RESPIRATION RATE**

12-16 bpm

12-16 Breaths per minute

**BLOOD PRESSURE**

SYSTOLIC / DIASTOLIC (Pumping) (Filling)

Below 120/80 mm Hg

(Systolic/Diastolic Pressure; Not a ratio/fraction!)

**In 15 sec:**

Per Minute:

SYSTOLIC / DIASTOLIC (Pumping) (Filling)

Below 120/80 mm Hg

(Systolic/Diastolic Pressure; Not a ratio/fraction!)