

Pump it Up!

1. **DESCRIPTION:** Teams will demonstrate knowledge of the human Circulatory & Respiratory systems.
2. **ESSENTIAL STANDARDS ALIGNMENT:** 3.L.1, 4.L.2, 5.L.1
3. **TEAM OF UP TO:** 2
4. **MAXIMUM TIME:** 60 min.
5. **TEAMS:** Must bring a writing instrument. No other resources are allowed.
6. **EVENT LEADERS:** Will provide an event with all necessary items, objects, materials, questions, and response sheets for participants to complete exams. Examples include but are not limited to models, slides, and pictures.
7. **SAFETY REQUIREMENTS:** None
8. **IMPOUND:** No
9. **THE COMPETITION:** The competition will consist of an exam that covers any or all of the following topics.
 - a. Identify the major organs and body parts involved in the respiratory and circulatory systems and understand the important job each body part has:
 - i. Heart: ventricles, atrium, aorta, & pathway of blood through the heart
 - ii. blood: white blood cells, red blood cells, plasma, & platelets
 - iii. vessels: veins, arteries & capillaries
 - iv. nose
 - v. trachea
 - vi. lungs
 - vii. diaphragm
 - b. Understand how the circulatory and respiratory systems interact with each other and for what purpose.
 - c. Understand the following conditions, including the organ or system impacted, basic genetic and/or environmental factors causing the disease, the prevention and treatment for the disease.
 - i. Sickle Cell Anemia
 - ii. Asthma
 - iii. Atherosclerosis
 - iv. Cystic Fibrosis
 - v. Chronic Obstructive Pulmonary Disease (COPD)
 - vi. Lung Cancer
10. **SCORING:** Points will be awarded for the accuracy of responses. Ties will be broken by the accuracy or quality of responses to pre-selected questions chosen by the event leader.
11. **EVENT RESOURCES:**
See the Event Resources tab on our website for instructions, videos and more.