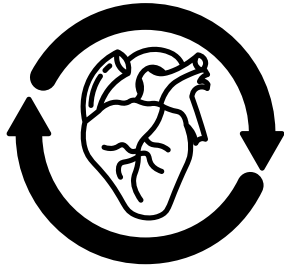


HEARTS & LUNGS

THE DYNAMIC DUO

THIRD GRADE



LEARNING OBJECTIVES

- Explain how respiratory system brings oxygen into the body
- Understand connection between trees and human oxygen needs
- Measure and record heart rate before and after exercise
- Explain how blood circulates through the body
- Understand role of different blood components
- Create models showing how body systems work together

7 WEEK UNIT

CARDIOVASCULAR &
RESPIRATORY SYSTEMS

WEEKLY ACTIVITIES

1. Respiratory System: Video, breathing, oxygen, lungs introduction
2. Lung Construction: Paper bag lungs with straws, tree connection
3. Lung Construction: Paper bag lungs with straws, tree connection
4. Heart Rate: Exercise, monitoring, dancing to music
5. Circulation: Blood cells, water bead model, circulation game
6. Systems Review: Oxygen transport, symbiotic relationships
7. Universal project: Blood slime creation (take-home)

SKILLS

1. Knowledge building, discussion, awareness
2. 3D modeling, understanding systems, nature connection
3. 3D modeling, understanding systems, nature connection
4. Data collection, physical activity, measurement
5. Understanding systems, data representation
6. Systems thinking, analysis, connections
7. Creative play, takeaway project

MATERIALS

1. Videos, diagrams, meditation audio
2. Paper bags, straws, tape, markers
3. Paper bags, straws, tape, markers
4. Heart rate sheets, exercise music, timers
5. Water beads, food coloring, juice bottles
6. Diagram resources, discussion guides
7. Starch, glue, red food coloring, sandwich bags

CALIFORNIA STANDARDS

- 3.L.1.a Analyze adaptations of living organisms
- 3.L.2.a Obtain information about energy flow in food webs
- 3.PS.2.a Explain how forces affect motion of objects
- Math 3.MD.B Measure and estimate lengths using standard units