

# UNIT 9 - RESPIRATORY SYSTEM

## ACTIVITY – Respiratory Volume

### OBJECTIVES:

Students will see a comparative difference in volume lung capacity.

### MATERIALS;

- Measuring Tape
- Rulers
- Overhead projector
- Balloons

### STRATEGY:

Compare internal and external respiration.

#### 1. Vital Capacity.

- (A) Stretch balloon.
- (B) Inhale a deep breath and exhale into your balloon.
- (C) Measure the balloons diameter.
- (D) Record information in column labeled vital capacity.
- (E) Repeat the exercise four additional times

#### 2. Expiratory Reserve.

- (A) Take a normal breath, exhale normally and expel the remainder into your balloon.
- (B) Measure and record.
- (C) Record four additional times.

#### 3. Tidal Volume.

- (A) Breath normally and exhale into your balloon without disrupting your pattern.
- (B) Measure and record.
- (C) Record four additional times.

### Discussion:

Discuss the fact that air has volume, is matter, and can be measured.

The students understand and can define:

- (A) Vital capacity.
- (B) Expiratory reserve.
- (C) Tidal volume.
- (D) Internal respiration.
- (E) External respiration.