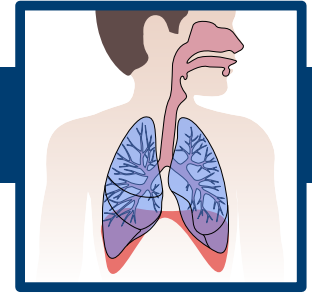


LESSON 3: RESPIRATORY EXPLORATORY

Exploratory Laboratory 3A: *Dust & Us!*



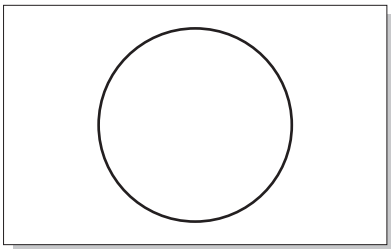
In this lab, you will consider the problem: how much dust does our respiratory system have to handle? This is important to know because particles (particulates) in the air can cause irritation or infection in our respiratory system. In this exploratory laboratory, you will walk around an area (your teacher will assign locations) with a “particulate collector” for three minutes. You will then observe, describe, and count the number of particulates collected.

Materials:

- › 2 index cards per person
- › Single hole paper punch
- › Clear cellphone/Scotch tape
- › Pen
- › Magnifying glass

Procedure:

Step 1: On one index card, draw a large circle on one side and on the other side, write *Observations*.



Step 2: Write the following information in the center of the card:

- Name:
- Date:
- Time Out: (time you leave classroom)
- Time In: (time you returned to classroom)
- Collection Location:

Hole Punch

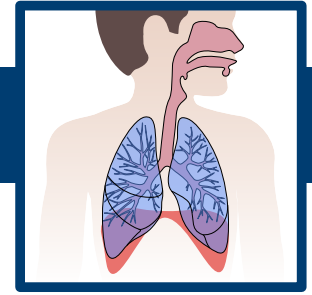
Name:
Date:
Time Out:
Time In:
Collection Location:

Step 3: Using the paper punch, punch 1 hole in the upper left corner of the index card.

Step 4: On the other index card, draw a large circle on one side and on the other, write *Observations*.

Step 5: Place a clean, clear strip of tape over the hole in the card from step 1, so the sticky side of the tape is exposed on one side of the index card. Be careful not to touch the sticky area of the tape!

LESSON 3: RESPIRATORY EXPLORATORY



Activity 3A: *Dust & Us!*

Step 6: Record the “time out” on your card.

Step 7: Walk to your assigned area of the school. Hold your index card in front of you with the sticky side out for 3 minutes. Wave the card around in the air, but do not touch it to anything.

Step 8: After 3 minutes in your assigned area, return to your lab station.

Step 9: Place a clean, clear piece of tape over the sticky side of the tape, sealing in any particulates.

Step 10: Record the “time in” on your card.

Step 11: Use the magnifying glass to observe the particulates adhered to the tape.

Step 12: On your second index card, draw what you see in the circle and record your observations.