

# AIR! IS IT REALLY OUT THERE?

Complete the following activities to learn more about the atmosphere,

## Activity 1 - Flying Rings

Materials – 1 balloon, plastic ring, piece of fleece, air

Your group has 3 minutes to use the following supplies to make the plastic ring fly.

1. How did you get the plastic ring to fly?
2. How does this experiment show there is air all around us?

## Activity 2 - How Many Breaths?

Materials – 1 Bernoulli air bag, air

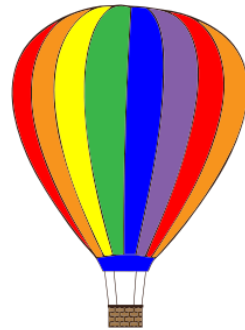
The group who can fill the Bernoulli bag with the fewest breaths...wins!

3. How many breaths did it take to fill your Bernoulli bag?
4. How does this experiment show there is air all around us?

## Activity 3 - Characteristics of the Atmosphere

Directions – Use pages 393 to 397 in the amazing book of knowledge (Red Earth Science Text book) to discover the following information.

5. The atmosphere is \_\_\_\_\_
6. That atmosphere is made up of
  - a. 78% \_\_\_\_\_
  - b. 21% \_\_\_\_\_
  - c. 1% \_\_\_\_\_ such as  
\_\_\_\_\_



7. What else is in the atmosphere?

## Atmospheric Pressure and Temperature

8. What is air pressure?
9. What keeps the atmosphere around the Earth?

10. Explain how a human pyramid explains the air pressure on Earth.

11. Why do the temperatures change at the different layers in the atmosphere?

### Layers of the Atmosphere

12. Complete the data table to explain the characteristic of each of the atmospheric layers.

| Layer        | Composition (gases in that layer) and Characteristics |
|--------------|---|
| Troposphere  |   |
| Stratosphere |   |
| Mesosphere   |   |
| Thermosphere |   |

13. Use the graph on page 394, to complete the data table, showing the air pressure (mB) and temperature (°C) of each layer.

| Layer | Pressure (mB) | Temperature (°C) |
|-------|---------------|------------------|
|       |               |                  |
|       |               |                  |
|       |               |                  |
|       |               |                  |

14. How can the thermosphere have high temperatures but not *feel* hot?