

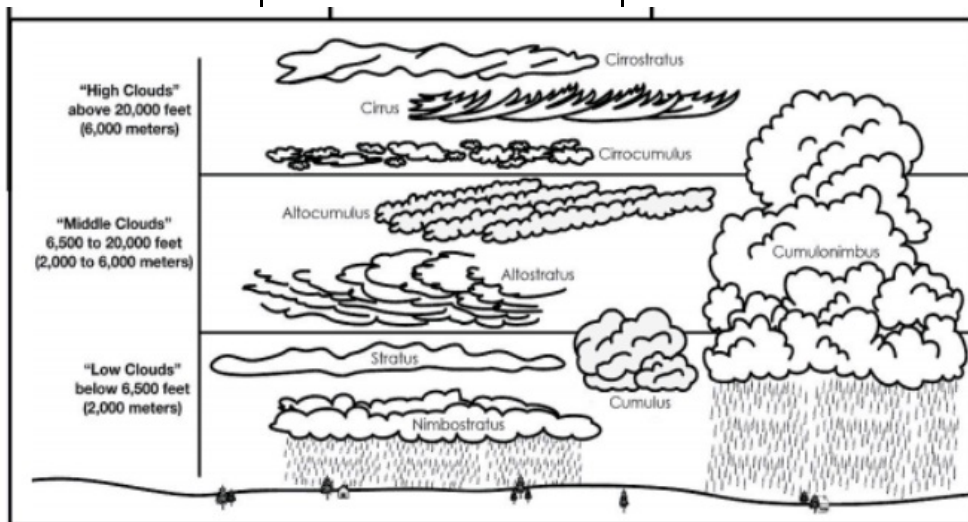
Science 1206
Unit 2: Weather Dynamics
Worksheet 3: Identifying Clouds



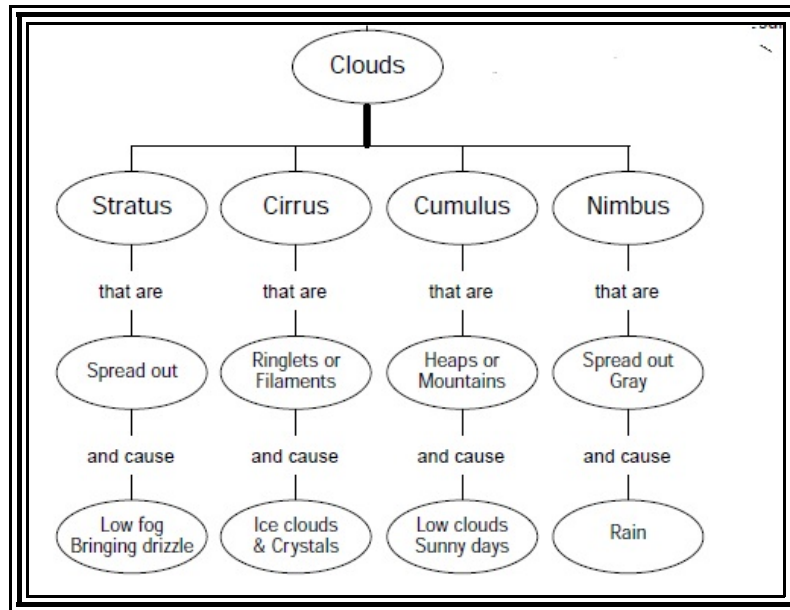
When you look up in the sky, you realize that no two clouds look exactly alike. Clouds are formed from water vapor that condenses then clusters together in droplets. There are many different types of clouds that can be seen. The types of clouds are determined based on what they look like and how high they are in the atmosphere



High Level clouds	Mid Level clouds	Low Level Clouds	Vertical Clouds
<p>High Level clouds are formed in altitudes above 6100 m. Because the temperatures are so cold at this elevation, these clouds are formed from ice crystals.</p> <p>Cirrus clouds are thin and wispy clouds that are blown by high winds. They usually mean the day will have fair or pleasant weather, and follow the direction that the air moves at the altitudes they are found at.</p> <p>Cirrostratus clouds are like very thin sheets of clouds that cover large parts of the sky.</p> <p>Cirrocumulus clouds look like small round puffs in the sky. Sometimes they are called mackerel clouds because they look similar to fish scales</p>	<p>Mid-level clouds are found in altitudes between 2000 m to 6000m. They are formed mainly of water droplets, but they can also be made of ice crystals when the temperature is cold enough.</p> <p>Altostratus clouds are composed of water droplets and are gray and puffy. These clouds are usually seen on warm and humid summer mornings and are usually a sign that thunderstorms will follow later in the day.</p> <p>Altostratus clouds are made up of ice crystals and water droplets. They can cover the entire sky and form before rain storms</p>	<p>Low level clouds are found below 2000 m and although they are mostly made up of water droplets. They can be composed of ice particles and snow in very cold temperatures.</p> <p>Stratus clouds are among the low-lying clouds. They are gray clouds that cover the entire sky and can be the result of very thick fog lifting in the morning.</p> <p>Nimbostratus clouds are dark gray clouds that produce falling rain or snow.</p>	<p>Cumulus and Cumulonimbus clouds are both known as vertical clouds</p> <p>Cumulus clouds are also called fair weather clouds and look like floating cotton. They have very flat bases and are not very tall clouds. When cumulus clouds are formed from droplets, they have very distinct edges, but as they move through the air causes the edges to appear more ragged and broken apart.</p> <p>Cumulonimbus clouds can take up several kilometres across the sky and can reach elevations of 12 000m or higher because of very strong updrafts in the atmosphere. These clouds bring lightning, thunder, violent tornadoes and other intense weather situations.</p>



Low level **Cumulonimbus** clouds are made up of water droplets, but at higher elevations they consist of crystals



PART A: Multiple Choice

[6]

1. These are high clouds that are composed of ice crystals:
 - (A) Cumulus
 - (B) Nimbostratus
 - (C) Altocumulus
 - (D) Cirrus

2. Which of the following is a cloud on the ground?:
 - (A) Altocumulus
 - (B) Cirrus
 - (C) Cirrocumulus
 - (D) Fog

3. The term stratus means:
 - (A) Vertically developed
 - (B) Upper level
 - (C) Horizontally layered
 - (D) Low level

4. Which of the following is not one of the three properties used by meteorologists to classify clouds.
 - (A) Basic shape
 - (B) Cloud composition
 - (C) Height above the ground
 - (D) Whether or not precipitation is generated

5. The names of all three high-cloud genera contain which of the following words in some form.
 - (A) Alto
 - (B) Cirrus
 - (C) Cumulus
 - (D) Stratus

6. This is the most common classification of a vertically developed cloud:
 - (A) Altolis
 - (B) Cumulus
 - (C) Nephrolis
 - (D) Stratus

1. Name two types of low - level clouds. [1]

2. What type of clouds are called “ fair weather clouds and look like floating cotton? [1]

3. Name two types of clouds that are between 6100 m and 2000m in the air. [2]

4. Which type of cloud brings lighting, thunder and tornadoes? [1]

5. Are stratus clouds or cirrus clouds found closer to the ground? [1]

6. What are cirrus, cirrostratus and cirrocumulus clouds made of? [1]

7. What type of cloud is often formed by fog lifting in the morning? [1]

8. Why are cirrocumulus clouds often called mackerel clouds? [1]
