Local Weather

**Outcomes: (115-6)**

**Content: Page 198 - 201**

## **Forecasting the Weather - Folklore**

* Before there was weather science, there was  .... weather folklore....
* Being able to predict the weather conditions for the afternoon and next day as well as for the next few days was very important.
* Their predictions of the weather helped them to decide when to plant or harvest a crop or what the growing season would be like.
* In a typical out-port fishing village a decision had to be made whether or not to put the salt fish out to dry or when to go on a fishing trip.
* In many cases their day-to-day activities depended on the weather.
* Without the help of modern day technology, it was necessary for people to develop a keen eye for signs in nature, which allowed them to predict changes in the weather.
* Many of these observations have led to the development of “old sayings” or weather proverbs.

**Examples of Weather Sayings:**

* 1. **Short term prediction:**
* Red sky at night sailors delight; red sky in morning sailors take warning
  1. **Long term prediction:**
* Lots of dogberries in the fall is a sign of a winter with lots of snow.

**How accurate are weather sayings?**

* Today, many people will laugh at old time weather lore as old wives tales
* However, many of these primitive or unscientific methods were not really that far out to lunch.
* Not all weather predictions worked all the time, but many can in fact be explained using science.

**Weather Sayings that may be true:**

**1. Consider the moon...**

* **"A ring around the moon brings rain or snow."**
* **"When the moon is in her house, rain or snow will come."**
  + From a science perspective, when the moon has a halo or ring around it, this is due to a type of clouds (cirrus) in higher altitudes.
    - These clouds generally move in front of a low pressure system.
    - Low pressure systems usually bring wet, stormy weather.
    - These cirrus clouds contain tiny ice crystals, which bend the light reflecting from the moon creating a ring.
  + On a non-scientific note, some people say if you count the number of stars inside the ring, you can estimate how far away the rain or snow will be.
  + Bright stars count for 24 hours of time while faint stars count for 12 hours.  Try it!

#### **2. How about the sky...**

* **Red sky at night, sailors delight; Red sky at morning, sailors take warning**
* **Evening red and morning grey, sends the traveler on his way. Evening grey, morning red, brings the rain down on his head.**
  + The red sky at night is caused by the scattering of light through the dust of a clear sky.
  + Since the sun sets in the west and our weather comes from the west, the next day should be a fine, clear day.
  + Red sky in the morning usually means that bad weather is pushing in.  The sun rises in the east and the sunlight is scattered by those high clouds that get pushed in front of an approaching low pressure system.

**3. Atmospheric pressure...**

* **Sea gull, sea gull, sit on the sand; It's sign of a rain when you are at hand.**
  + When it rains, the air often becomes thinner, or less dense.
  + The lighter air is less able to support a bird in flight.
  + Since it's harder for the bird to fly, sea gulls are more likely to stay on land.

**Weather Sayings That Aren’t So Good:**

* Weather sayings that make reference to the actions of birds and animals are not very good.
  + For instance, the size of a muskrat's house or a beaver's dam is determined by the water levels at the time it was built, **not** the beaver’s prediction of the season ahead.
* Weather sayings that forecast the weather months in advance are of very little value.
  + Lot’s of dogberries in the fall means harsh winter ahead.
    - The amount of growth and development of plants are the results of weather conditions that have already passed and have no connection with future weather

**More Modern Methods of Predicting Weather:**

* Depends on a variety of factors such as:
  + temperature, humidity, ocean currents, global wind patterns, and local geography (mountains, lakes, oceans, plains, etc).
* With all these weather factors in mind it is also important to note that modern day weather forecasters with all their state of the art gadgets are not always right all the time either.
* In fact, the best a modern day forecaster will ever do is predict the weather 3 days in advance.

### **Homework: page 201: # 1**

### **Activity 4.1 From SRL (Handout)**