**Science Reviewer**

**Weather and Climate**

**Weather:**

* It is the mix of events that happen each day in our atmosphere including temperature, rainfall and humidity.
* Weather is not the same everywhere. Perhaps it is hot, dry and sunny today where you live, but in other parts of the world it is cloudy, raining or even snowing.
* Every day, weather events are recorded and predicted by meteorologists worldwide.
* It is the average weather pattern in a place over many years.
* So, the climate of Antarctica is quite different than the climate of a tropical island.
* Hot summer days are quite typical of climates in many regions of the world, even without the effects of global warming.

**Climate in the Philippines:**

* The Philippines has a tropical climate with three distinct seasons.
* **June to September** - The country experiences a rainy season brought by the southwestern monsoon; typhoons are common during this time.
* **October to February** - The northeastern monsoon brings cold winds from the north, creating cool and dry weather.
* **March to May** - The Philippines experiences hot summers. Coastal areas next to the Pacific Ocean experience year-round rainfall.

**Weather Disturbances:**

* A weather disturbance is a general term that describes any pulse of energy moving through the atmosphere.
* They are important in that they can act as focusing mechanisms for storm formation, or even to intensify low pressure systems.
* They are typically mid or upper atmospheric troughs of low pressure that are embedded in the general wind flow of the atmosphere.

**Tropical Cyclones:**

* **Tropical Depression** - Once a group of thunderstorms has come together under the right atmospheric conditions for a long enough time, they may organize into a tropical depression. Winds near the center are constantly between 20 and 34 knots (23 - 39 mph).
* **Tropical Storm** - A tropical storm is an organized system of strong thunderstorms with a defined surface circulation and maximum sustained winds between 17 and 33 meters per second (34 to 63 knots, 39 to 73 mph, or 62 to 117 km/h). At this point, the distinctive cyclonic shape starts to develop, though an eye is usually not present.
* **Typhoon** - A Typhoon is a name used in east Asia for a Hurricane. It is a type of cyclone occurring in the western regions of the Pacific Ocean. A typhoon is similar to a hurricane in levels of destructiveness. The word typhoon comes from the Chinese term tai-fung meaning great wind.
* **Inter-tropical Convergence Zone** - The Intertropical Convergence Zone (ITCZ), known by sailors as The Doldrums, is the area encircling the earth near the ecle\_where winds originating in the northern and southern hemispheres come together.

1. **Northeast Monsoon** - The Winter Monsoon (North or northeast) features cool and dry air that originates in a vast anticyclone - a weather system with a high barometric pressure - which forms over Siberia, Mongolia and northern China during each northern winter.
2. **Southeast Monsoon** - Summer Monsoon weather is characterized by a strong, generally West or southwest breeze that is responsible for bringing significant rainfall to the Asian subcontinent and to South and East Asia.

**Public Storm Signal:**

* **PSWS #1** - Tropical cyclone winds of 30 km/h (19 mph) to 60 km/h (37 mph) are expected within the next 36 hours. (Note: If a tropical cyclone forms very close to the area, then a shorter lead time is seen on the warning bulletin.)
* **PSWS #2** - Tropical cyclone winds of 60 km/h (37 mph) to 100 km/h (62 mph) are expected within the next 24 hours
* **PSWS #3** - Tropical cyclone winds of 100 km/h (62 mph) to 185 km/h (115 mph) are expected within the next 18 hours.
* **PSWS #4** - Tropical cyclone winds of greater than 185 km/h (115 mph) are expected within 12 hours.