Region VIII – Eastern Visayas
Division of Tacloban City
Tacloban City

LESSON 2

Learning Area	**SCIENCE V:** Communicating the risks of Storm Surge and other extreme events.
I. Learning Objectives	
A. Content Standards	The learner understands what the necessary elements are of hazard warning messages. The learner understands that, to be effective, messages should have all the necessary elements. The learner should understand how to interpret weather agency tropical cyclone warnings and fill in message elements.
B. Performance Standards	The learner shall be able to identify and fill in the necessary elements of hazard warning messages.
C. Learning Competencies	At the end of the session, the learners are expected to: • Identify the important elements necessary in developing a good hazard warning message. • Construct messages that have all the necessary elements. • Understand the weather agency's warning classification system. ***CODE: S5FE-IVf-6***
II. Content/ Subject Matter	Elements of Hazard Warning Messages
III. Learning Resources	**1.Teacher's Guide** Communicating the Risks of Storm Surge and Other Extreme Events Online Toolkit **and Tutorial, page 8**
A. References	1.) BEAM 5. Unit 6. 16 Blowing in the Wind. Distance Learning Modules. DLP 50. 2.) MISOSA 5. Module 24. 3.) Science for Daily Use 5. Tan, Conchita T. 2012. p. 234. * 4.) NFE. Paghahanda sa Bagyo. 2011. pp. 5-11.
1. Teacher's Guide	Pages 114 to 121
2. Learner's Materials pages	Pages 160 to 164
3. Textbooks/s	Pages 174 to 179
B. Other Learning Materials	Online Toolkit and Tutorial; ppt; meta cards; marking pens.
IV. PROCEDURE	

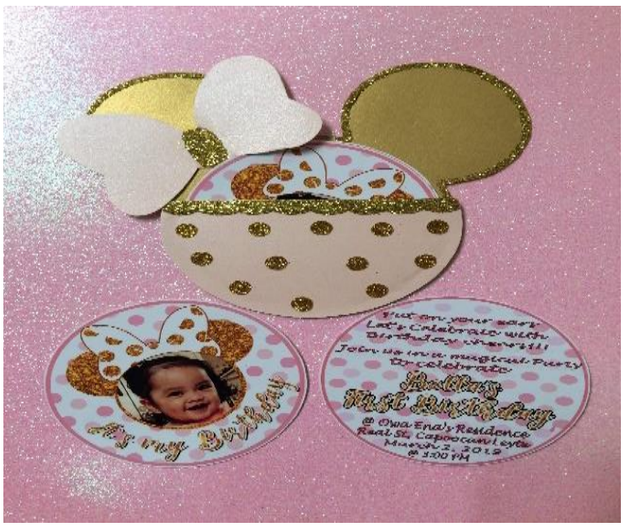
Teacher's Activity	Pupil's Activity
A. PRELIMINARY ACTIVITY -Prayer (Anyone who will volunteer to lead?) -Greetings Good morning class! -How are you today? -The way I see it, everyone is feeling good and excited for our lesson today. - Before we proceed with our lesson/s today, I will distribute first a survey form. There is no wrong or correct answer on this survey form. Just write your name and gender and confidently answer the form. **A.1 Review** Before we begin, can someone remind us what we were talking about last time? Anybody from the class who can explain the risks from typhoons? What about risks from storm surge and mudslide? Would anyone like to read the paragraph they wrote for the assignment?	- Group prayer. - Pupils fill out the Survey Form. Sir/Ma'am, the risks from typhoons: storm surge, mudslides.

A.2 Motivation

I want you to pay attention to the picture, look attentively on the picture on the screen (in the absence of DLP projector the teacher may use a birthday invitation card).

-Can you see it clearly?
-What is the picture all about?
-What's in the invitation?

Very good. Okay, look closely on what are written on the card. What are the most important elements of the message?



-Yes ma'am/sir.
-An invitation.
-A birthday party invitation.
- Whose birthday, when, where.

Pupils 1: Teacher, the venue.
Pupils 2: the time
Pupils 3: the theme of the party.
Pupils 4: the date of the party

B. ACTIVITY

Main Activity

The teacher will relate the pre-activity to the lesson proper.

* *Forming groups.*

1. The class will be divided into 4 groups. Please count 1 to 4.
2. All 1 in this side, all 2 here, 3 at my right and 4 at my left.
3. Choose a leader per group and a writer.
4. All members must form a circle in accomplishing the task.
5. You are going to identify the most important elements in the bulletin that I will show you.
6. Spend a few minutes studying the bulletin, and then share with us your observations.

NWS Bulletin

RED ALERT: Tacloban City Magallanes coastal residents Brgy.48 -B, storm surge 4 m danger high, evacuation begins Tuesday 2pm, call 911 for information and assistance.

-Each group will be given six metacards, which will look as shown below.

Event/Description | Guidance | Sender

-Students sort themselves into 4 groups.

Students will write passages from the messages on the cards, which would look like that shown below.

Recipient

coastal residents of barangay 48-B

Sender

NWS

Event/Description

storm surge

Location Guidance Timing (Note: alternatively, an actual weather bulletin from a newspaper can be copied and distributed.)	Timing Tuesday 2 pm Location Tacloban City Magallanes Guidance evacuation begins, call 911 for information and assistance
C. ANALYSIS - Does the message have all the needed elements? - What part of the message matches each of the required elements? (Each group will share one of their filled-out cards, going around the room.) - What would happen if one of the elements is missing (give an example).	Yes, teacher. Group 1: Sender. Group 2: Receiver. etc. If there is no guidance, then people will not know what to do.
D. ABSTRACTION / GENERALIZATION **D.1 Comparison/Abstraction** - What lesson do we learn from this exercise? - What is the difference between event and guidance?	Messages should have all the elements. The event is what will happen, and guidance is what people should do to be safe.
D.2 Value Integration **- Being A Responsible Message Sender** 1. What does this tell us about being a responsible message sender?	- Do not share false news. Avoid miscommunication. - Also verify the news if it's true. - Have all the elements in your message:
D.3. Generalization Explain to us, in your own words, what each element means.	- Sender- Who is sending the message. -Recipient- Who is receiving the message. -Event/Description- What is about to happen? -Location- Where will the event will occur, and what local areas are to be most affected? -Guidance- What is the suggested course of action? -Timing- When will the event occur, and by when does the action need to be taken?
If someone gives you a message with a missing element, what do you do?	-We need to find the missing information and make the message complete.

E. Application

Activity.
Each group will imagine some event that will be happening in their area. This should be a different event than the example previously discussed. The event can be a dangerous one, a pleasant one, etc. Examples of events that can be assigned to the groups include:

- volcano eruption
- free concert by a famous pop star
- planned water outage
- district basketball championship
- visit by a tv game show

Students will have to imagine all the other details (e.g., name of the volcano) and construct messages with all the elements. They should be encouraged to be as imaginative as they want and to change the event to something that they would like to describe.

After sufficient time, each group should present their message (write it on a large card or on the board), and the rest of the class should check that all the necessary elements are to be found in each group's message. Students can suggest additional details, such as guidance (e.g., store water in bottles before the planned water outage).

V. Evaluation

This exercise has two objectives: first, to introduce the students to the weather agency's tropical cyclone warning signals/classification and, secondly, to test their ability to add necessary message elements.

The teacher will introduce the weather agency's classification scheme, as shown below, and give the class some time to digest what the table means.

WARNING SIGNALS (Source: PAGASA)

Signal	Meaning
TCWS #1 (Tropical Depression, TD)	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.)
TCWS #2 (Tropical Storm, TS)	Tropical cyclone winds of 61 km/h (38 mph) to 120 km/h (75 mph) are

	expected within the next 24 hours.
TCWS #3 (Severe Tropical Storm, STS)	Tropical cyclone winds of 121 km/h (75 mph) to 170 km/h (110 mph) are expected within the next 18 hours.
TCWS #4 (Typhoon, TY)	Tropical cyclone winds of 171 km/h (106 mph) to 220 km/h (140 mph) are expected within 12 hours.
TCWS #5 (Super Typhoon, STY)	Tropical cyclone winds greater than 220 km/h (140 mph) are expected within 12 hours.

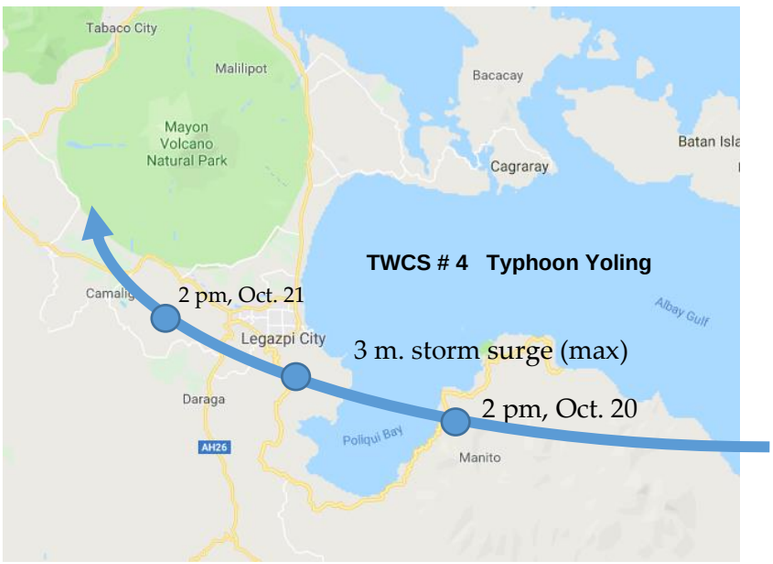
Questions:
What is the fastest speed that a car normally goes on the highway? If the wind of the storm is going at this speed, how would you classify it?
What is the strongest storm you have ever experienced? Do you know where it lies on the classification table?
Try this exercise, Group 1, assume that the weather agency informed you, right now, that they are raising a STS warning for your area, can you compose a message with all the necessary elements? Group 2, do the same, but assume you received a TY notice.

VI. Assignment

The students will take home a sheet that shows a tropical cyclone track and storm surge prediction. The student should translate the diagram into a warning bulletin that contains all the necessary elements. The track can simply be hand drawn on a map, as shown below

Assignment

Imagine you are working at the barangay office and received a text message from the national weather agency showing the diagram below. Just using the figure below and figuring out the details for yourself, compose a message (all words, no pictures) that warns affected residents of the coming event. Be sure you put all the necessary elements in the message.



This Lesson Plan can be cited and referenced as:

> **Lejano, R., E. Casas, Jr., Yanger, M. J.. and M. Pormon (2019).** Hazards, Risk, and Resilience: Lesson Plans for Teaching Risk Communication in Primary Schools. New York University and the University of the Philippines Visayas Tacloban College, New York City and Tacloban City.

Authors:

Dr. Eulito Casas Jr. – UPV Tacloban College
Dr. Jean Yanger – Eastern Visayas State University
Mr. Chester Tamayo – DepEd. Tacloban City Division
Prof. Miah Maye Pormon – UPV Tacloban College
Ms Lynie Pajota – DepEd Tacloban City
Mr. Angelo Peñaranda – DepEd Tacloban City
Dr. Raul Lejano – New York University