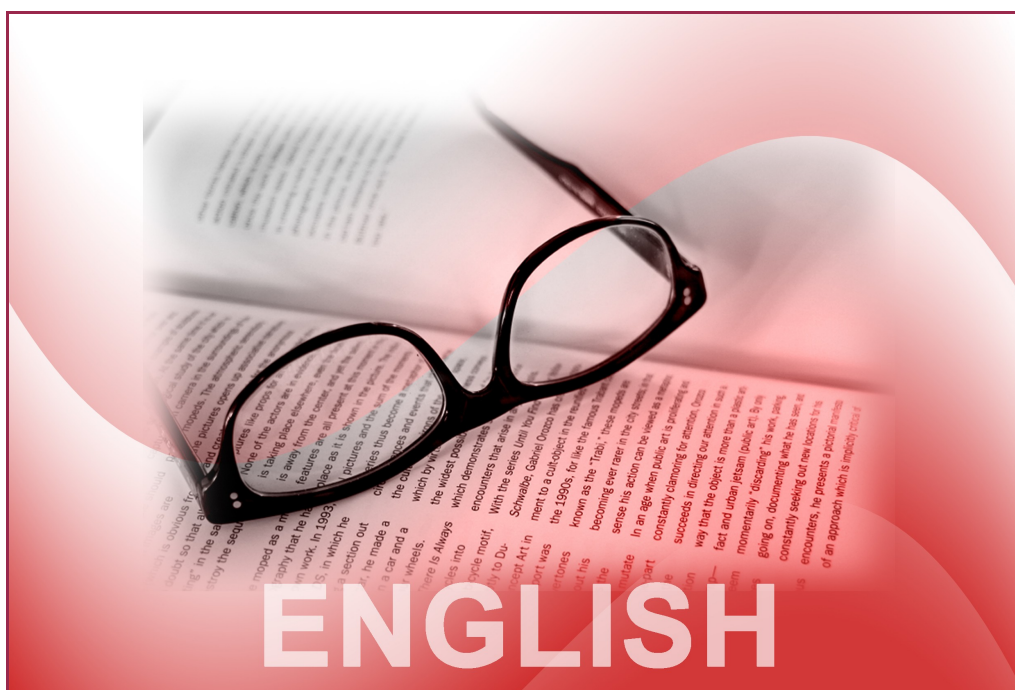




BASIC EDUCATION ASSISTANCE FOR MINDANAO LEARNING GUIDE



Grade Five English MODULE 8: CAUSE AND EFFECT Third Grading

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BASIC EDUCATION ASSISTANCE FOR MINDANAO
GRADE FIVE ENGLISH
MODULE 8: CAUSE AND EFFECT
THIRD GRADING



Information about this Learning Guide

Recommended number of lessons for this Learning Guide: 9

Basic Education Curriculum Competencies

Grade 5 English: Cause and Effect

- Listening
 - Identify cause/effect from statements/situations heard
 - Identify action words in sentences/paragraphs heard
- Speaking
 - Use the different verb forms:
 - Simple present for general truth
 - Habitual past (use to + verb)
 - Future (going to + verb)
 - Use two-word verb
- Reading
 - Perceive relationship
 - give possible causes to a given effect and possible effects to a given cause
- Writing
 - Write reports from the writing model:
 - Science report

Objectives

- Match squares that contain related ideas
- Give possible causes and effects of the given scene
- Write own definition of the words "cause" and "effect"
- Write cause-effect sentences using cause-effect signals
- Locate in the map the countries/places identified in the text
- Point out in the map the three primary imaginary lines (equator, tropic of cancer and tropic of capricorn)
- Explain in their own words what is greenhouse effect
- Identify the causes of global warming from the text read
- Identify the effects of global warming from the text read
- Identify the solutions to "Global Warming" problem
- Fill-out different cause-effect graphic organizers
- Give possible causes to the given effect



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- Give possible effects to the given cause
- Write a report out of the text read
- Identify action words from sentences heard
- Use the different forms of the verb such as:
 - simple present for general truth
 - habitual past (use to + verb)
 - future (going to + verb)
- Use two-word verbs in the sentence
- Use different intelligences to campaign against global warming

Essential concepts, knowledge and understandings targeted

- Actions have consequences
- Cause is something/reason that makes something else happen. Out of two events, it is the event that happens first. To determine the cause, ask the question "Why did it happen?".
- Effect is what happens as a result of the cause. Of two related events, it's the one that happens second or last. To determine the effect, ask the question "What happened?".
- General truth is a statement proven to be or accepted as true.
- Simple present form of the verb is used to state general truth.
- Habitual past form of the verb "use to + verb" is used when the action is habitually done in the past.
- Future form of the verb "going to + verb" can be used when the action is yet to be done.

Specific vocabulary introduced

- **Greenhouse** is a structure with a glass or plastic roof and usually glass or plastic walls; it heats up because incoming solar radiation from the sun warms plants, soil, and other things inside it.
- **Greenhouse effect** is the process in which the emission of infrared radiation by the atmosphere warms a planet's surface.
- **Global Warming** is the increase in the average measured temperature of the Earth's surface.
- **Equator** is the longest imaginary line of latitude on the earth (the line where the earth is widest in an east-west direction)
- **Tropic of Cancer** a location in the earth that lie 23.5 degrees latitude north of the equator.
- **Tropic of Capricorn** is a location in the earth that lie 23.5 degrees latitude south of the equator.
- **Tropical Countries** are countries that have warm and humid climate and do not experience seasons because the sun is always high in the sky.



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Suggested organizational strategies

- Students are grouped into smaller groups to maximize participation of all students.
- Outputs of the students are posted on the "output wall" for students to see.
- Assessment is provided to measure students' understanding of the topic or skills developed.
- Activities are processed by asking questions to follow-up activities and ensure understanding of the concept being developed.

Cross-curriculum/Integration

- **Science:** Greenhouse Effect and Global Warming
- **Geography:** Location of countries mentioned in the text, understanding equator, tropic of cancer and tropic of capricorn.

Activities in this Learning Guide

Activity 1: "Matching Squares"

Multiple Intelligences

- Logical
- Interpersonal

Skills

- Observation and recall of information
- Seeing patterns
- Compare and discriminate between ideas
- Understanding information

Activity 2: "Speculating Cause and Effect"

Multiple Intelligences

- Interpersonal

Skills

- Observation and recall of information
- Order, group, infer causes
- Predict consequences

Activity 3: "Tying-up Cause and Effect"

Multiple Intelligences

- Interpersonal

Skills

- Organization of parts



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Activity 4: "Text Reading"

Multiple Intelligences

- Verbal/Linguistic
- Interpersonal
- Body/Kinaesthetic

Skills

- Recognition of hidden meanings
- Order, group, infer causes
- Predict consequences
- Understanding information

Text Types

- Information Report

Activity 5: "Cause-Effect in Graphix"

Multiple Intelligences

- Body/Kinaesthetic

Skills

- Observation and recall of information
- Order, group, infer causes
- Predict consequences
- Translate knowledge into new context

Activity 6: "Global Warming: Global Warning"

Multiple Intelligences

- Interpersonal
- Body/Kinaesthetic

Skills

- Use information
- Relate knowledge from several areas
- Order, group, infer causes
- Predict consequences

Activity 7: "Present, Past and Future"

Multiple Intelligences

- Intrapersonal



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- Interpersonal

Skills

- Use information
- Understanding information

Activity 8: "Help Prevent Global Warming"

Multiple Intelligences

- Interpersonal
- Body/Kinaesthetic

Skills

- Use information
- Translate knowledge into new context

Activity 9: "Campaign Against Global Warming"

Multiple Intelligences

- Intrapersonal
- Visual/Spatial
- Verbal/Linguistic
- Musical/Rhythmic
- Interpersonal
- Body/Kinaesthetic

Skills

- Use information
- Use methods, concepts, theories in new situations
- Relate knowledge from several areas

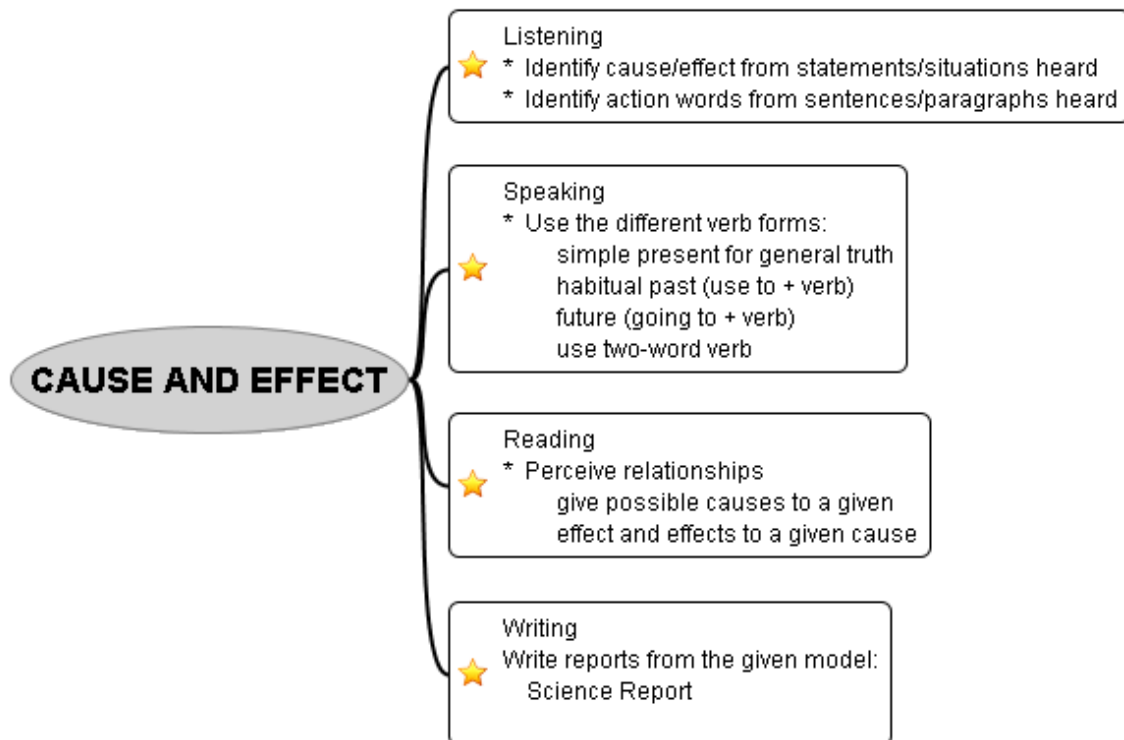
Key Assessment Strategies

- Peer/Self Evaluation
- Scoring Rubrics
- Short Tasks



Mind Map

The Mind Map displays the organization and relationship between the concepts and activities in this Learning Guide in a visual form. It is included to provide visual clues on the structure of the guide and to provide an opportunity for you, the teacher, to reorganize the guide to suit your particular context.



Stages of Learning

The following stages have been identified as optimal in this unit. It should be noted that the stages do not represent individual lessons. Rather, they are a series of stages over one or more lessons and indicate the suggested steps in the development of the targeted competencies and in the achievement of the stated objectives.

Assessment

All six Stages of Learning in this Learning Guide may include some advice on possible formative assessment ideas to assist you in determining the effectiveness of that stage on student learning. It can also provide information about whether the learning goals set for that stage have been achieved. Where possible, and if needed, teachers can use the formative assessment tasks for summative assessment purposes i.e as measures of student performance. It is important that your students know what they will be assessed on.



1. Activating Prior Learning

This stage aims to engage or focus the learners by asking them to call to mind what they know about the topic and connect it with their past learning. Activities could involve making personal connections.

Background or purpose

The Activity “Matching Squares” of this stage would challenge students to match squares that contain related ideas. It is designed to make students discover the main context covered in this Learning Guide which is cause-effect relationship. This would also lead them to understand the concept that “every action has corresponding consequence/s”.

Strategy

Discovery teaching is a constructivist approach wherein students begin learning with an activity designed to lead them to particular concept/s or conclusion/s.

Materials

Students' Learning Contract on page 21

Student Activity Sheets 1A to 1C (Matching Squares) on pages 22 to 24

Assessment 1 (Answer Key of Activity 1 “Matching Squares”) on page 25

crayons

masking tape

Prior to the conduct of Activity 1, you may set the standards in doing a group activity by letting students formulate their own learning contract.

1. *Group the class into six. Let each group choose a leader and a secretary.*
2. *Distribute the Learning Contract on page 21 to groups.*
3. *Explain the directions.*
4. *Let the students do the activity.*
5. *Let the groups read their learning contract.*
6. *Instruct them to post their contracts on the designated corner of the room, for them to be reminded of their agreements from time to time.*
6. *Inform them that the contracts are still applicable even if they will be regrouped in some other activities.*

Activity 1 “Matching Squares”

1. Group the class into six. (You may have more groups for a bigger class.)
2. Duplicate Student Activity Sheets 1A to 1C on pages 22 to 24 and distribute to groups.
3. Give each group 3 crayons of different colors.
4. Let the students match the squares that have related ideas by shading them with the same color.
5. Give the students enough time to do the activity.
6. Let the groups present their outputs.



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7. Post their outputs on the “output wall”.
8. Draw out the concept from the students that the statements they have matched actually have “cause-effect relationship”. Ask them the following:
 - What helped you find the exact match of the squares?
 - What have you noticed with the statements in each pair of squares matched?
 - How are they related?

Formative Assessment

- ✓ Use the answer key on page 25 to assess each group's output.

Roundup

Students should have matched the squares with related statements. They should have also understood that these statements show cause-effect relationships and that every action has corresponding consequence/s.

2. Setting the Context

This stage introduces the students to what will happen in the lessons. The teacher sets the objectives/expectations for the learning experience and an overview how the learning experience will fit into the larger scheme.

Background or purpose

In Activity 2 of this stage, students are going to determine the possible causes and effects of the situation reflected in each picture. Based on their outputs, they are expected to come up with their own definition of the words “cause” and “effect”.

On the other hand, Activity 3 will challenge students to formulate cause-effect sentences by tying-up the causes and effects they have written in Activity 2 using the cause-effect signal words.

Strategies

Photographs/Pictures are useful visual prompts to stimulate students' interests in learning the lesson and to draw out ideas of the students that would help establish a sound link with the lessons in this Learning Guide.

Cooperative Learning is an instructional approach in which students work together as a team with each member contributing to the completion of the task.

Materials:

- Student Activity Sheets 2A to 2C (pictures) on pages 26 to 28
- Assessment 2 “Speculating Cause and Effect” on page 29

Activity 2 “Speculating Cause and Effect”

1. Group the class into six. (You may have more groups for a bigger class.)
2. Show each of the pictures on Student Activity Sheets 2A to 2C (pictures) on pages 26 to 28 and encourage students to say something about each picture.
3. Duplicate Student Activity Sheets 2A to 2C on pages 26 to 28 and distribute to groups.
4. Give the following directions.
 - Study/Examine the picture at the center of the activity sheet.



- Brainstorm ideas on the possible causes and effects of the situation/scene shown in the picture.
 - Write them down on the proper column.
5. Give the students enough time to do the activity.
 6. Let the groups present their outputs to the class and post them on the output wall.
 7. Process the activity by asking students the following: (You may add more.)
 - What made you come up with the causes and effects of the scene in the picture?
 - Did your experiences help you in identifying the causes and effects of a particular situation?
 8. Based on their activity, let each group come up with their own definitions of the words “cause” and “effect”. Let them write their answers in a short bond paper and post them under each output.

Note: Accept answers that make the same sense below.

A **cause** is something/reason that makes something else happen. Out of two events, it is the event that happens first. To determine the cause, ask the question “Why did it happen?”

An **effect** is what happens as a result of the cause. Of two related events, it’s the one that happens second or last. To determine the effect, ask the question “What happened?”

Activity 3 “Tying-up Cause and Effect”

1. Use the same groupings in Activity 2.
2. Based on their output on Activity 2, let each group formulate at least two cause-effect sentences using the following **cause-effect signals**:
 - so
 - since
 - due to
 - because
 - therefore
 - as a result
 - consequently
 - for this reason
3. Show this example for students to be guided.

Many fish got poisoned because some industrial companies throw their chemical wastes on seas and rivers.
4. Let the groups report their outputs.
5. Process the activity by discussing the importance of cause-effect signals in writing cause-effect sentences. Explain to them that whenever they see these signals in the sentence, it signifies that the sentence is a “cause-effect sentence”.



Formative Assessment

- ✓ Use the Assessment 2 on page 29 to assess students' skills in formulating cause-effect sentences based on the given scene.

Roundup

Students should have learned to give possible causes and effects based on the scene reflected in the given pictures. They should have also formulated their own definitions of the words “cause” and “effect”, thus, making them understand the concept.

Further, students should have also learned to formulate cause-effect sentences by tying-up cause-effect statements using different signals.

3. Learning Activity Sequence

This stage provides the information about the topic and the activities for the students. Students should be encouraged to discover their own information.

Background or purpose

In this stage, an informative text entitled “Our Home: THE EARTH” will be read by the students. This talks about global warming, its causes and effects, and it also cited some points on what can human beings do about it.

The process of conducting the three phases of reading (pre-reading, during reading and post reading) is designed to help the students have an in-depth study of the text that would invoke their awareness about “global warming”. Thus, challenging them to identify the causes, effects and solutions to the problem.

Strategy

Directed Reading Activities (DRA) (Betts, 1946) is a strategy that provides students with instructional support before, during, and after reading. This strategy follows 6 steps namely: *pre-teaching important vocabulary, eliciting prior knowledge, teaching students how to use a specific skill, providing a purpose for reading, assessing students' comprehension and providing engagement activities.*

Materials

- Student Resource Material 1 (Glossary) on page 30
- Teacher Resource Materials 1A to 1C (Illustrations of Greenhouse Effect and Global Warming) on pages 31 to 33
- Teacher Resource Material 2 (Greenhouse Effect & Global Warming Information) on page 34
- Teacher Resource Material 3 (Tropics Illustration) on page 35
- Student Activity Sheets 3A-3B (Reading Text - “Our Home: THE EARTH”) on pages 36 to 37
- Student Activity Sheet 4 (Cluster Web) on page 38
- Assessment 3 (Scoring Rubric) on page 39

Activity 4 “Text Reading”

PRE-READING

A. Pre-Teaching Vocabularies



1. Write in the manila paper the Glossary on Student Resource Material 1 on page 30 and post it on the board.
2. Let the students read the words and their meanings.
3. Inform them that they are going to encounter these terms as they read the text.

B. Eliciting Prior Knowledge

1. Greenhouse Effect and Global Warming
 - Show the pictures (greenhouse, car, greenhouse effect) on pages 31 to 33.
 - Let the students say something about the pictures.
 - Ask them how they are related.
 - Discuss the relationships of the pictures using the TRM 2 “The Greenhouse Effect and Global Warming Information” on page 34.

2. Location of countries mentioned in the reading text

Students' skills in locating places in the map and understanding “tropics” are expected to have harnessed already since this is the first lesson of Grade Four students in HEKASI subject. The purpose of this activity is to elicit the prior knowledge of the students regarding this matter since they need it to better understand the text.

- Show a globe or a world map to the class and let the students point out the location of Canada, Africa and Philippines.
- Discuss the location of “tropic of cancer and tropic of capricorn” in the globe/map using the TRM 3 (Tropics Illustration) on page 35.

C. Teaching students how to use a specific skill

Identifying cause and effect relationship within a story helps students focus on two important elements of comprehension: what happens in the story and why it happened. Looking for cause and effect gives students an opportunity to look carefully at the consequences of a particular action and to think about how different actions might result to different effects.

1. Review some simple examples of cause effect relationships such as:
 - “Some industrial companies throw their chemical wastes on the sea, (cause) so, many fishes die (effect).
 - Wild animals have no homes to live (effect) because the trees in the forest are cut down by humans (cause).
2. Follow-up the simple review by asking students the following:
 - How do you identify a cause?
 - How do you identify an effect?
 - What clues could help you identify whether a statement is a cause or effect?

D. Setting the purpose for reading

Inform students that they are going to read the text to find out what is global warming, its causes and effects and what are the possible solutions to this alarming phenomenon.

DURING READING (Buddy Reading)

1. Form pairs. Make sure that a good reader be paired with a challenging reader. Instruct them to help each other in understanding the text.



2. Give each pair a copy of the reading text “Our Home: THE EARTH” on pages 36 to 37.
3. Instruct the students to read the story silently and inform them that they can refer to the glossary for the meaning of terminologies used in the text.
4. After the buddy reading, you may have a small group reading to reinforce students' understanding and comprehension of the text. (Just remind them to do it without disturbing other groups.)

POST READING

E. Assessing students' comprehension

Ask students on what paragraph they can find the following:

- causes of global warming (paragraphs 2 & 3)
- effects of global warming (paragraphs 4, 5 & 6)
- solutions to the problem (paragraphs 7 & 8)

Ask students the following:

- How is the earth's atmosphere like a greenhouse?
- Why does the temperature rise when greenhouse gas levels increase?
- What is the primary gas that traps heat and prevents it from escaping into the atmosphere?
- How does greenhouse effect contribute to global warming?
- Why is global warming a *world problem*?

F. Providing Small Group Activities

1. Give each group a copy of Student Activity Sheet 4 (Cluster Web) on page 38, a manila paper and a marking pen.
2. Read the directions provided in the activity sheet.
3. Assign to groups the following tasks:
 - Group 1 : Identify the causes of global warming.
 - Group 2: Identify the effects of global warming.
 - Group 3: Identify the solutions to the problem.
4. Give the students enough time to do the activity.
5. Let the groups report their outputs.

Formative Assessment

- ✓ Use the Assessment 3 (Scoring Rubric) on page 39 to assess each group's output in filling up the cluster web.

Roundup

The students should have identified the causes, effects and solutions to the problem/s related to global warming from the text read.



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4. Check for Understanding of the Topic or Skill

This stage is for teachers to find out how much students have understood before they apply it to other learning experiences.

Background or purpose

In this stage, students will be provided with an activity that will check their skill in identifying causes of the given effects and effects of the given causes. They are going to demonstrate their knowledge on cause-effect relationship by filling out various graphic organizers and by writing a report about the text read.

Strategy

Cause-Effect Graphic Organizers provide visual representation in organizing ideas and presenting information on cause-effect relationship. They make visible the thinking of the students. They help students represent abstract concepts and ideas in concrete forms.

Materials

- Student Activity Sheet 5A (Cause-Effect Chain) on page 40
- Student Activity Sheet 5B (Cause-Effect Chart) on page 41
- Student Activity Sheet 5C (Cause-Effect Wheel) on page 42
- Assessment 4 (Scoring Rubric for Graphic Organizers) on page 43
- Assessment 5 (Scoring Rubric for Paragraph Writing) on page 44.

Activity 5 “Cause-Effect in Graphix”

1. Group the class into six.
2. Assign a graphic organizer on pages 40 to 42 for each group to work on. Two groups will work with the same graphic organizer.
3. Give the following directions:
 - Read again the story “Our Home: THE EARTH”.
 - Fill in the cause-effect graphic organizer assigned to your group based on the things you’ve learned from the text.
 - a) Cause-Effect Chain - Groups 1 and 2
 - b) Cause-Effect Chart - Groups 3 and 4
 - c) Cause-Effect Wheel - Groups 5 and 6
4. Read the criteria on how their outputs be assessed on page 43.
5. Give the groups enough time to do the activity.
6. Let the groups report their outputs.

Activity 6 “Global Warming: Global Warning”

1. Use the same groupings in activity 5.
2. Give each group a manila paper and a marking pen.
3. Let each group write a simple report about global warming to warn people about this problem.
4. You may ask them to consider the following parts of a report.



- Introduction (explain why the report is necessary and give background information on the subject matter which is global warming)
 - Body (discuss and give details of the report; causes and effects of global warming)
 - a) Causes of Global Warming
 - b) Effects of Global Warming
 - Conclusion (discuss the solutions to the problem)
5. Read the criteria in writing a report on Assessment 5, page 44.
 6. Give the students enough time to do the activity.
 7. Let the groups report their outputs.
 8. Instruct the groups to post their works on the “output wall”.
 9. Process the activity by asking students the other ways to warn and inform people about global warming.

Formative Assessment

For Activity 5:

- ✓ Use the Assessment 4 on page 43 to assess each group's output.

For Activity 6:

- ✓ Use the Assessment 5 on page 44. to assess each group's output.

Roundup

Students should have demonstrated their understanding about “cause-effect relationship” using different graphic organizers and by writing a report based on the given theme.

5. Practice and Application

In this stage, students consolidate their learning through independent or guided practice and transfer their learning to new or different situations.

Background or purpose

It is in this stage where the grammar focus will be developed. Students are expected to identify the action words from the paragraphs heard. They will also be challenged to use the simple present form of the verb for general truth, habitual past form of the verb using “use to + verb” and future form of the verb using “going to + verb”.

On the other hand, Activity 8 “Help Prevent Global Warming” would provide students a chance to understand and use two-word verbs in the sentence.

Strategies

Active Learning is a strategy that engages learners by matching instruction to the learners' interests, understanding, and developmental level that often includes hands-on activities.

Materials

- Teacher Resource Material 4 (Paragraphs) on page 45
- Student Activity Sheet 6 (Chart) on page 46
- Student Activity Sheet 7 (10 Ways to Help Prevent Global Warming) on page 47



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- Teacher Resource Material 5 (Common Two-Word Verbs) on page 48
- Assessment 6 “Present, Past and Future” on page 49

Activity 7 “Present, Past and Future”

1. Conduct a review on the following forms of the verb:

- simple present form of the verb to express general truth.

Note: General truth are statements that are always true and cannot be argued with.

Examples:

- The earth revolves around the sun.
- Living things need air to live.
- Water is important to maintain good health.

- habitual past (use to + verb)

Examples:

- People used to cut trees in the forest.
- Children used to play under the heat of the sun.
- I used to waste water from the faucet.

- future (going to + verb)

Examples:

- We are going to plant trees to replace the lost trees in the forest.
- I am going to refrain from playing under the heat of the sun.
- I am going to use water wisely.

2. Group the class into six.
3. Give each student a copy of Student Activity Sheet 6 on page 46.
4. Explain the following directions.
 - Listen as I read a sentence. (Refer to Teacher Resource Material 4 for sentences on page 45)
 - Jot down all the action words mentioned in the sentence and write them on the second column of the activity sheet.
 - After listening to each paragraph:
 - Write a general truth about each prompt on the third column using the simple present form of the verb.
 - Write what you were used to doing with it using habitual past form of the verb (use to + verb) on the fourth column.
 - Write what you are going to do with it using the future form of the verb (going to + verb) to help prevent global warming.
 - Number 1 serves as your example.
5. Start conducting the activity by reading the sample sentence on page 45.
6. Give the students enough time to do the activity every after reading each sentence.



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7. Process the activity by:
- discussing action words and the different verb forms in each sentence;
Ask them the following:
 - a) What form of the verb do we use when we talk about general truth? (simple present form)
 - b) What form of the verb do we use when the action is habitually done in the past? (habitual past using “use to + verb”)
 - c) What form of the verb did you use to state an action that is yet to be done? (future using “going to + verb”)
 - asking students what kind of life changes they are going to make to help prevent global warming. Example: recycle waste materials, save energy at home, walk instead of riding a car if destination is just near, etc.

Activity 8 “Help Prevent Global Warming”

1. Group the class into six.
2. Give each group a copy of Student Activity Sheet 7 “10 Ways to Help Prevent Global Warming” on page 47.
3. Explain the directions.
4. Let the students present/read their outputs.
5. Check students' output using the answer key below.

1. keep on	6. give out
2. get around	7. turn off
3. give up	8. back up
4. clean up	9. look for
5. go against	10. go over

6. Process the activity by asking: (add more if needed)
 - What other two-word verbs do you know aside from those mentioned in the activity sheet? (List them down on the board)
 - What else can you do to help prevent global warming?
 - What would happen if everybody will observe the *Ten Ways to Help Prevent Global Warming*?
7. You may wish to discuss some other common two-word verbs. Refer to TRM 5 (Common Two-word Verbs) on page 48.

Formative Assessment

For Activity 7:

- ✓ Use Assessment 6 “Present, Past and Future” on page 49.

For Activity 8:

- ✓ *Directions:* Revisit the two-word verbs in the Student Activity Sheet 7. Use them in the sentence.



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Roundup

Students should have used the different forms of the verb such as simple present form for general truth, habitual past form using “use to + verb, and future form using “going to + verb”. They should also have used two-word verbs in the sentence.

6. Closure

This stage brings the series of lessons to a formal conclusion. Teachers may refocus the objectives and summarize the learning gained. Teachers can also foreshadow the next set of learning experiences and make the relevant links.

Background or purpose

It is very important that students feel they can make a positive contribution to the environment.

In this stage, students will be given a chance to make a move against global warming in their own little way by doing the tasks that interest them most.

Strategy

MI Activity is a strategy that would cater all the intelligences of the students. The students will be the ones to choose the kind of activity they are interested in doing.

Materials

cartolina
glue/paste
marking pens
pencils
crayons/water color

Activity 9 “Campaign Against Global Warming”

1. Present the following tasks: (You can add more tasks if necessary.)
 - Make pamphlets to inform the public about causes and effects of global warming. (Each student in a group should make one.)
 - Write a poem about global warming.
 - Compose a song that challenges the reduction of energy uses and greenhouse gases to help prevent global warming.
 - Make a poster about “Global Warming Awareness”
 - Make a drama revealing the issue on global warming.
2. Group the class by letting each student choose a task that he/she is comfortable doing. Remind each group to reflect in their work the causes and effects of global warming.
3. Give the groups enough time to plan and do their tasks.
4. Let the groups present their outputs.
5. Process the activity by asking: (you may add more)
 - How do you feel as you perform your group task?
 - Is everybody responsible in preventing global warming? Why?



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- What other things/activities can you do to help campaign against global warming?

Formative Assessment

- ✓ Use the Assessment 7 on page 50 to assess the individuals and groups' performances in Activity 8.

Roundup

The students should have used their intelligences to express their concern for the environment.

Teacher Evaluation

(To be completed by the teacher using this Teacher's Guide)

The ways I will evaluate the success of my teaching this unit are:

- 1.
- 2.
- 3.



LEARNING CONTRACT

These are the rules for our group. Every member is expected observe each rule.

Date: _____

In doing our group activities in English Class...

1. *We should* _____
2. *We should* _____
3. *We should* _____
4. *We should* _____
5. *We should* _____
6. *We should not* _____
7. *We should not* _____
8. *We should not* _____
9. *We should not* _____
10. *We should not* _____

Signed: _____, _____, _____,
_____, _____, _____.

Witnessed by: _____

English Teacher



Student Activity Sheet 1A
“Matching Squares”

use of bicycle instead of car as transportation	bus passengers throw garbage along the highway
aerial spraying in banana plantation	air will be less polluted
people will be infected with lung related diseases	garbage are scattered in the streets



Student Activity Sheet 1B

“Matching Squares”

make bags out of recycled materials	allow the leaves to decompose instead of burning
soil will be more fertile	people acquire lung cancer
smoking in public places	earn extra income



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Student Activity Sheet 1C
“Matching Squares”

water bill increases	exposure to ultraviolet rays of the sun
reduce non- biodegradable wastes	skin cancer
faucet is left open	reuse plastic bags



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Assessment 1
Answer Key for Activity 1 “Matching Squares”

Student Activity Sheet 1A

use of bicycle instead of car as transportation	air will be less polluted
aerial spraying in banana plantation	people will be infected with lung related diseases
bus passengers throw garbage along the highway	garbage are scattered in the streets

Student Activity Sheet 1B

make bags out of recycled materials	earn extra income
allow the leaves to decompose instead of burning	soil will be more fertile
smoking in public places	lung cancer

Student Activity Sheet 1C

exposure to ultraviolet rays of the sun	skin cancer
faucet is left open	water bill increases
reuse plastic bags	reduce non-biodegradable wastes



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Student Activity Sheet 2A
“Speculating Cause and Effect”

Directions: Write 2 possible causes and 2 possible effects based on the picture below.

CAUSES		EFFECTS
1. _____	1. _____	
2. _____	2. _____	



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Student Activity Sheet 2B
“Speculating Cause and Effect”

Directions: Write 2 possible causes and 2 possible effects based on the picture below.

CAUSES		EFFECTS
1. _____	1. _____	
2. _____	2. _____	



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Student Activity Sheet 2C
“Speculating Cause and Effect”

Directions: Write 2 possible causes and 2 possible effects based on the picture below.

CAUSES		EFFECTS
1. _____	1. _____	
2. _____	2. _____	



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Assessment 2
“Speculating Cause and Effect”

Directions: Study the picture below. Write cause-effect sentences about it using cause-effect signal words.



CAUSE-EFFECT SENTENCES	
1.	
2.	
3.	
4.	
5.	



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Student Resource Material 1
“Pre Teaching Vocabularies”

GLOSSARY

Atmosphere: An envelope of gases around the Earth

Carbon Dioxide: A colorless, odorless, incombustible gas formed during breathing, and used in fire extinguishers and in making bubbly drinks

Chlorofluorocarbons: Also known as CFCs, these man-made chemicals contain carbon, fluorine and chlorine and were used to cool fridges.

Coal: A fossil fuel formed in ecosystems where plant remains were preserved by water and mud from oxidization and biodegradation thus, sequestering atmospheric carbon. Coal is a readily combustible black or brownish-black rock.

Desert: A dry, often sandy region of little rainfall

Fossil Fuels: Sources of energy such as coal, oil and natural gas. Such fuels are non-renewable resources - once they are burnt, they cannot be replaced

Greenhouse : A structure with a glass or plastic roof and usually glass or plastic walls; it heats up because incoming solar radiation from the sun warms plants, soil, and other things inside the building

Greenhouse Effect: The process by which greenhouse gases naturally in the atmosphere keep the Earth warmer than it would otherwise be without them

Intensify: is to increase or strengthen

Methane: A chemical compound with the molecular formula CH₄.

It is the simplest alkane, and the principal component of natural gas

Nitrous oxide: (aka laughing gas or dinitrogen monoxide): A chemical compound which is colorless, non-flammable gas, with a pleasant, slightly sweet odor and taste.

Temperature: The measurement of cold and heat

Predominant: means the most common

Recycle: is to put or pass through a cycle again; especially to reprocess

Starve: is to suffer or die from extreme or prolonged lack of food



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Teacher Resource Material 1A
“Greenhouse ”

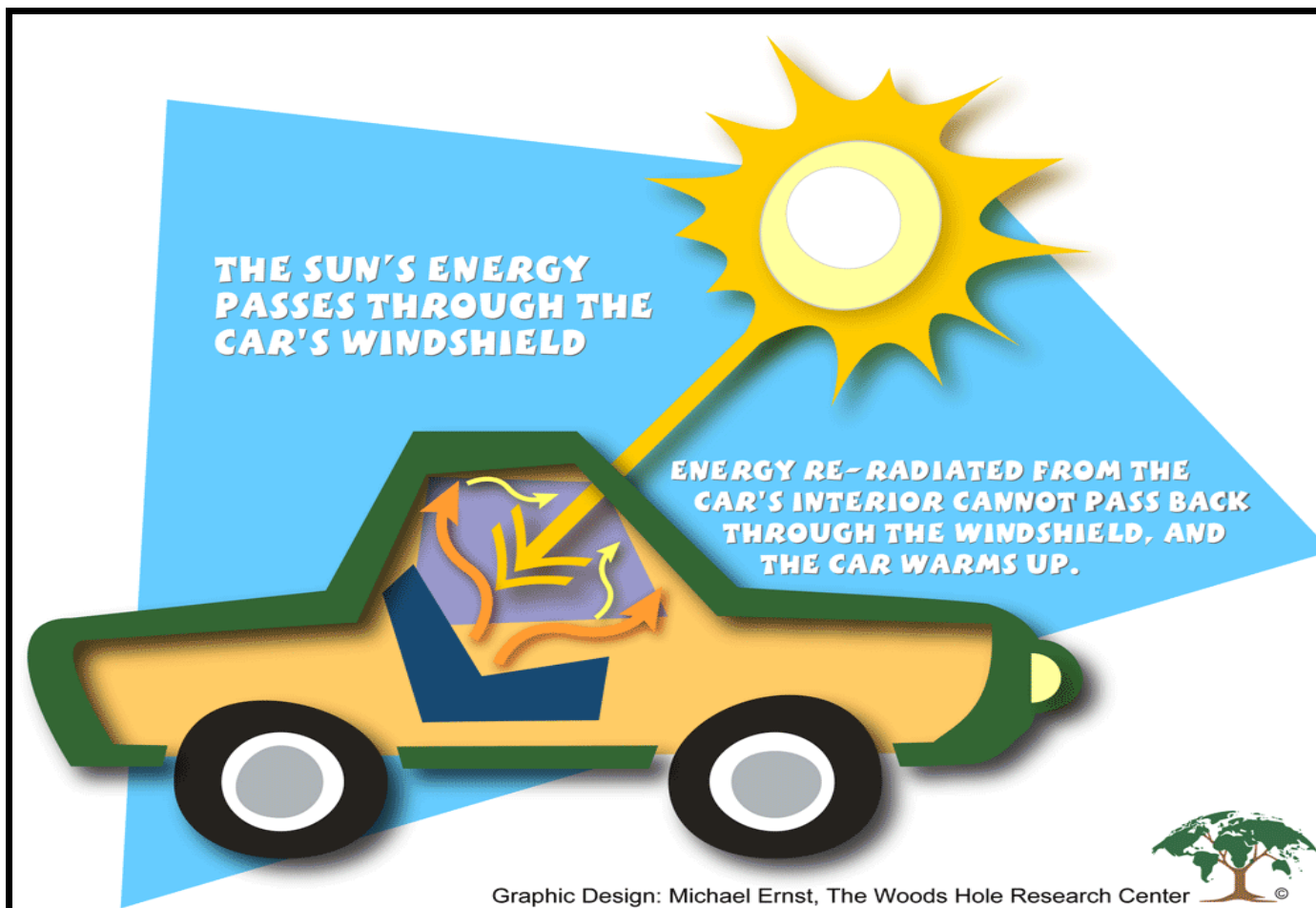




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Teacher Resource Material 1B
“Greenhouse Effect on Car”

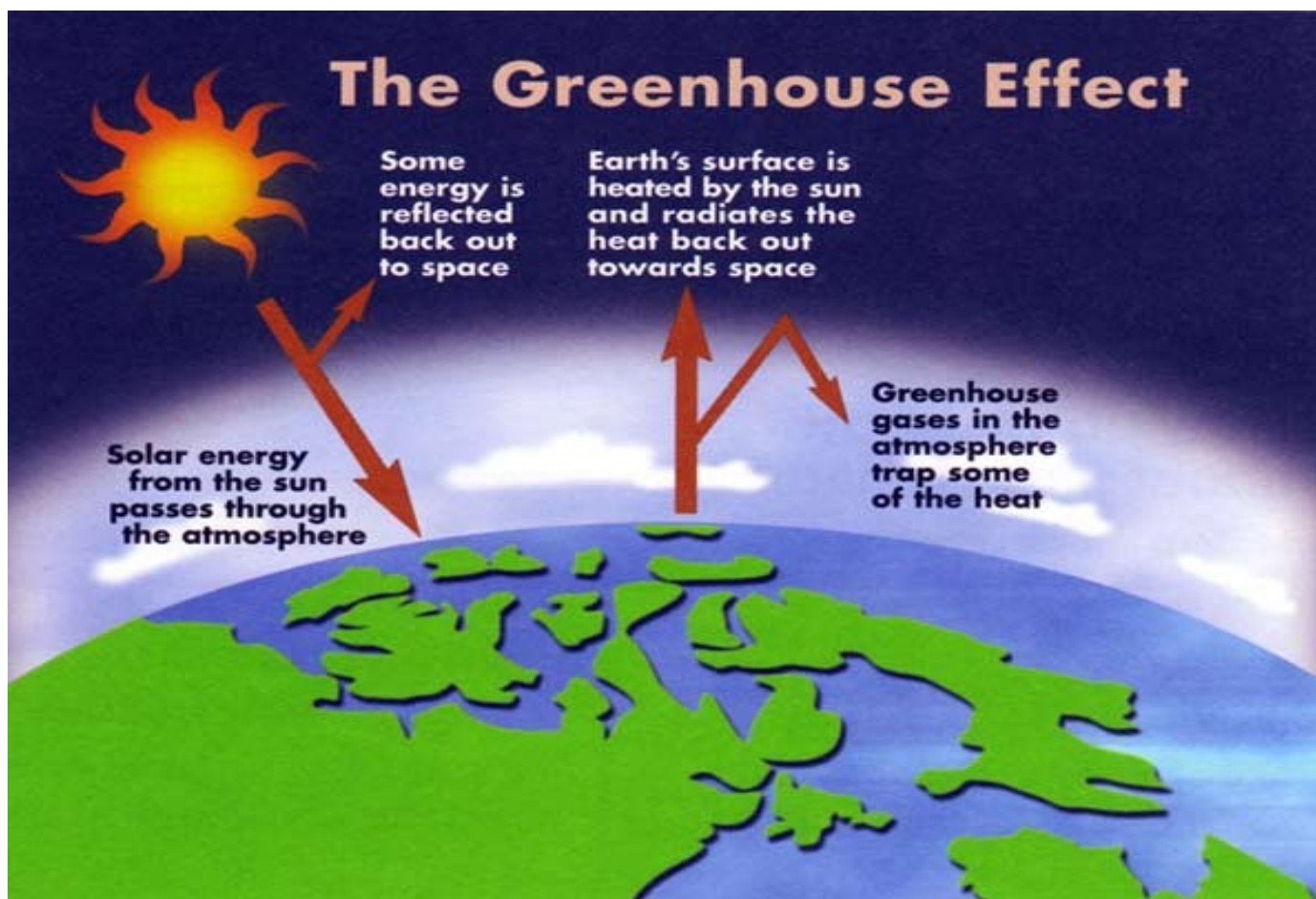




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Teacher Resource Material 1C
“Greenhouse Effect on Earth”



www.tgnyc.org/NYC063192/ghg_effect_lg_e.jpg



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Teacher Resource Material 2
Greenhouse Effect & Global Warming Information

The **first picture** shows a greenhouse. Botanists (one who studies plants) in cool climate areas use greenhouses to grow plants. Plants in very cold places cannot grow well. So, they make greenhouses to help the heat stay in and not to escape. The greenhouses are made by using a clear covering, usually glass or plastic in order to allow visible light to come in.

The **second picture** shows a car wherein the sun's energy passes through the car's windshield. The car warms up since the heat or the energy re-radiated from the car's interior is trapped and cannot escape through the windshield.

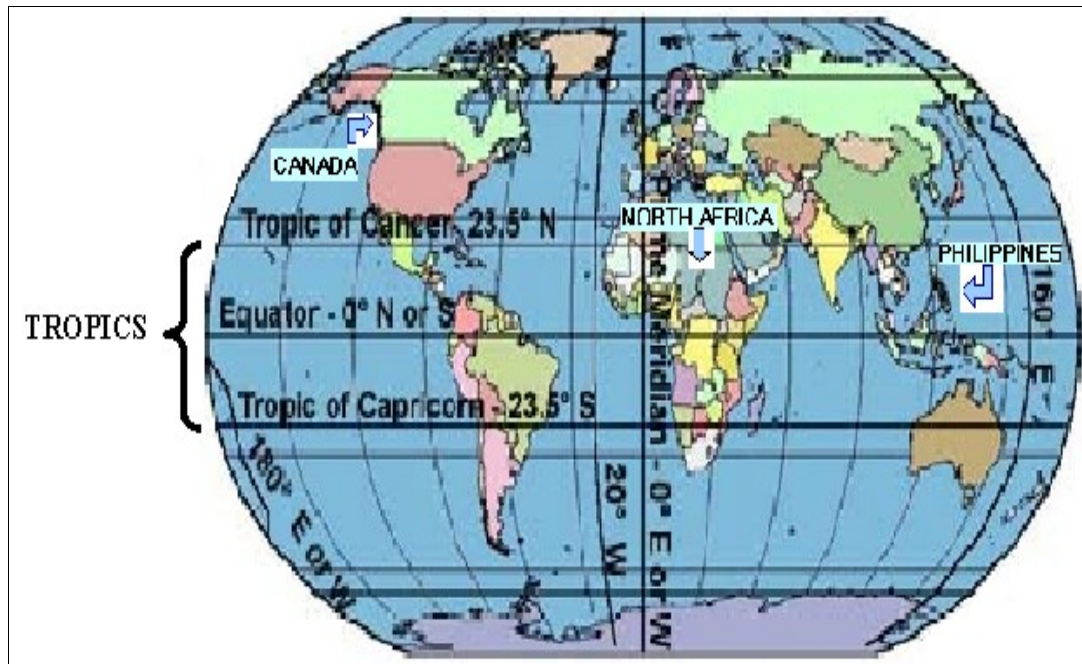
The **third picture** shows the greenhouse effect on earth. The earth also has a transparent covering layer which is composed of greenhouse gases that allow the sun's rays to come in and heat the earth and stay warm. Greenhouse gases trap the Sun's warmth by not allowing natural gases to escape. Think of this layer as a transparent blanket covering a ball. We need greenhouse gases to keep the earth in a comfortable temperature and not reach a freezing temperature.

However, the greenhouse effect has increased since humans are burning more fossil fuels and are using more gases like carbon dioxide, methane and nitrous oxide, causing the earth to warm up and, as a result, global warming is happening.



Teacher Resource Material 3 “Text Reading” (Tropics Illustration)

Use the illustration below to point out the location of equator, tropic of cancer and tropic of capricorn. Refer to text below to explain this matter. (You may also use the map instead of this picture.)



Equator, Tropic of Cancer and Tropic of Capricorn

Three of the most significant imaginary lines running across the surface of the earth are the equator, the Tropic of Cancer, and the Tropic of Capricorn.

*The **equator** is the longest line of latitude on the earth (the line where the earth is widest in an east-west direction).*

*The **Tropic of Cancer** and the **Tropic of Capricorn** each lie at 23.5 degrees latitude. The Tropic of Cancer is located at 23.5° North of the equator and the Tropic of Capricorn lies at 23.5° South of the equator.*

All countries bounded by the Tropic of Cancer on the north and Tropic of Capricorn on the south is known as the "tropical countries." These areas have warm and humid climate.



Student Activity Sheet 3A

“Reading Text”

Roman M. Gania “Journey to Excellence; Flying Free Worktext”

Our Home: THE EARTH

The Earth is surrounded by the atmosphere that acts like a glass roof and walls of greenhouse. This blanket of gases keeps the Earth's surface temperature at 15 degrees centigrade (15° C). Without this, the Earth's temperature would be 35 degrees centigrade warmer. The moon, which does not have this atmosphere of gases is 18 degrees C, a freezing temperature that would not support life.

What is global warming and what causes it?

However, when the amount of gases in the atmosphere increases, the temperature increases, too. This is called global warming. Evidence shows that this is happening. The main gas which causes global warming is carbon dioxide. Since 1850s the concentration has increased by about 25%. Where is this coming from? The burning of fossil fuels such as coal and oil is the major reason. When vehicles and factories burn fossil fuels in the form of gasoline and oil, they release carbon dioxide into the atmosphere.

There are other causes. Normally, carbon dioxide is absorbed by trees, but because we cut down trees to produce lumber and paper, more carbon dioxide is left into the atmosphere. Other greenhouse gases such as nitrous oxide and chlorofluorocarbon (CFC) contribute to the greenhouse gases. These are found in many refrigerators, air-conditioners and food packaging made of foam. Methane is another potent gas that contributes to global warming. It comes from oil and gas fields and from forest burning.

What happens when there is global warming?

For one, when the temperature increases, the ice in the northern latitudes such as in northern Canada melts. This causes flooding in these areas. Animals who live in these areas lose their natural habitat. The sea level would also rise. An increase of 3.5 degrees would cause a rise of 1 meter. Coastal towns would be at risk.



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Student Activity Sheet 3B
“Text Reading Continued...”

In countries around the tropic of cancer and capricorn where the Philippines is situated, an increase in temperature would mean more typhoons, which are formed because of high temperature. This in turn will cause flooding, loss of properties, farm crops and even lives. Every year, the Philippines and many countries in the southeast Asia experience this problem. With the greenhouse effect, we can expect more of this.

This will intensify the desert problem in northern Africa. Some regions of Africa, which are predominantly desert is widening. Because their farmlands are turning into desert, many families in the area near this region are in danger of losing their livelihood. Many more people will starve to death.

What can we do about it?

The most common sense solution to this problem is to cut down on the use of substances that produce these gases. This means cutting down on the use of gasoline. Using mass transportation is a possible alternative. The governments in many countries have already phased out the use of CFCs. In May 1989, the United Nations sponsored a meeting in Helsinki where 80 nations agreed would ban CFCs by the year 2000. Many governments and institutions have developed reuse and recycle programs. Bottles, plastic and paper products are sold back to factories where they are reprocessed into new ones. Citizens can even earn extra money selling these used materials and containers to recycling stores.

We all live on the same planet. What we do in one place will affect us anywhere we live. We breathe the same air, drink water from the same source. We cannot escape the effects of what we do to our environment. We should join the whole world in protecting the “house” in which we all live. We only have one. If we do not protect it, we will risk losing it.

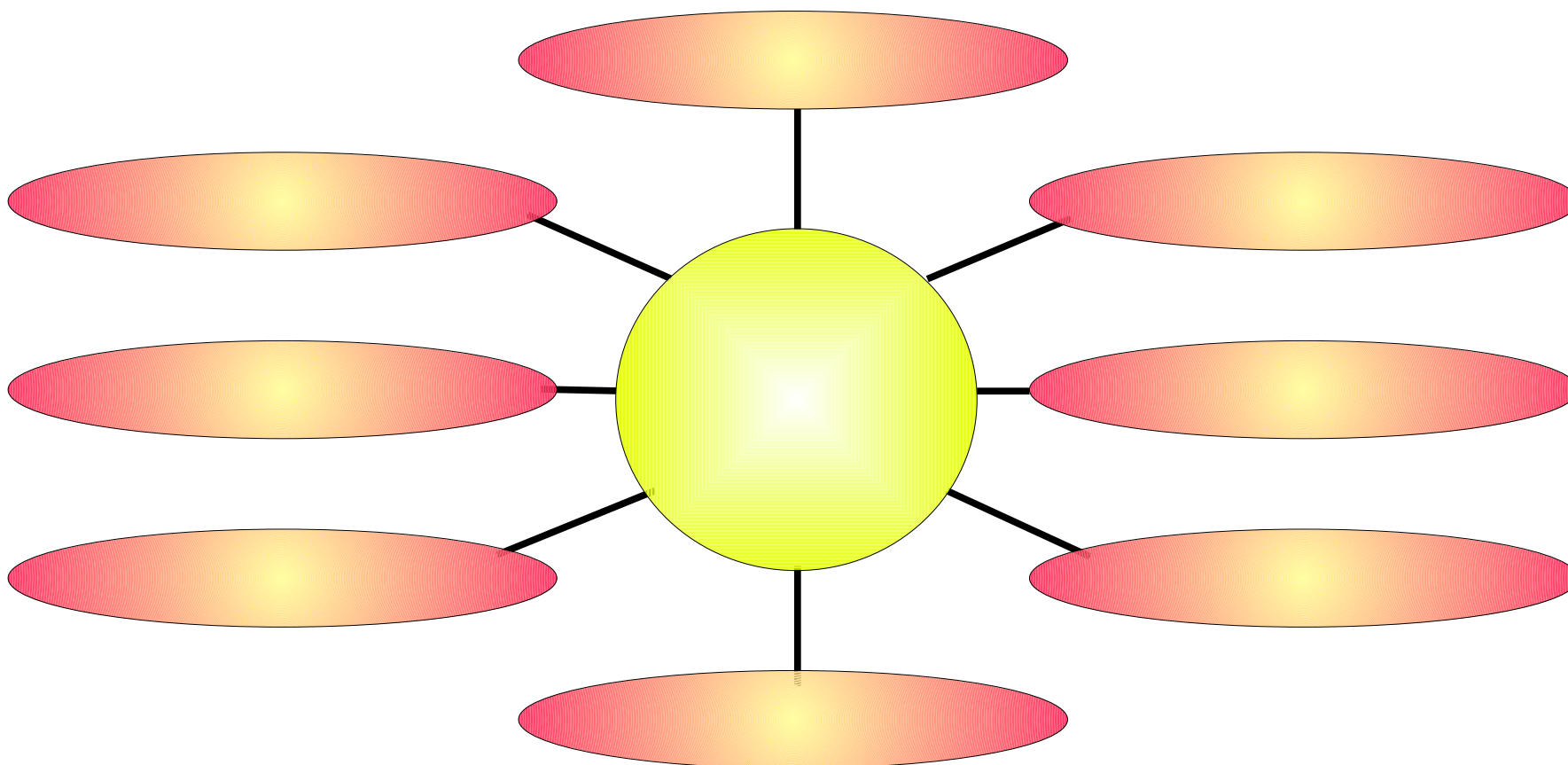


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Student Activity Sheet 4
“Text Reading” (Small Group Activities)

Directions: Write your task at the center of the cluster web. Fill in informations on the surrounding elongated circles in response to your task. You may add elongated circles, if needed.





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Assessment 3
“Small Group Activities”

Use this scoring rubric to assess each group's output in graphic organizer during “Cause-Effect in Graphix” activity.

Group No. _____ Group Members: _____, _____, _____, _____, _____, _____

INDICATORS	Very Good (3)	Good (2)	Needs Improvement (1)	TOTAL SCORE
Causes/Effects/Solutions (According to group task)	100% of the causes/effects/solutions found in the reading text were identified.	Only 50% of the causes/effects/solutions in the reading text were identified.	Less than 20% of the causes/effects/solutions in the reading were identified.	
Clear composition	Composition of Causes/Effects/Solutions is clearly and correctly written.	Composition of Causes/Effects/Solutions is not so clear but could be understood.	Composition of Causes/Effects/Solutions is difficult to understand.	
Language conventions	No capitalization, spelling, or punctuation errors	One to three capitalization, spelling, or punctuation errors	More than six capitalization, spelling, or punctuation errors	
TOTAL SCORE				

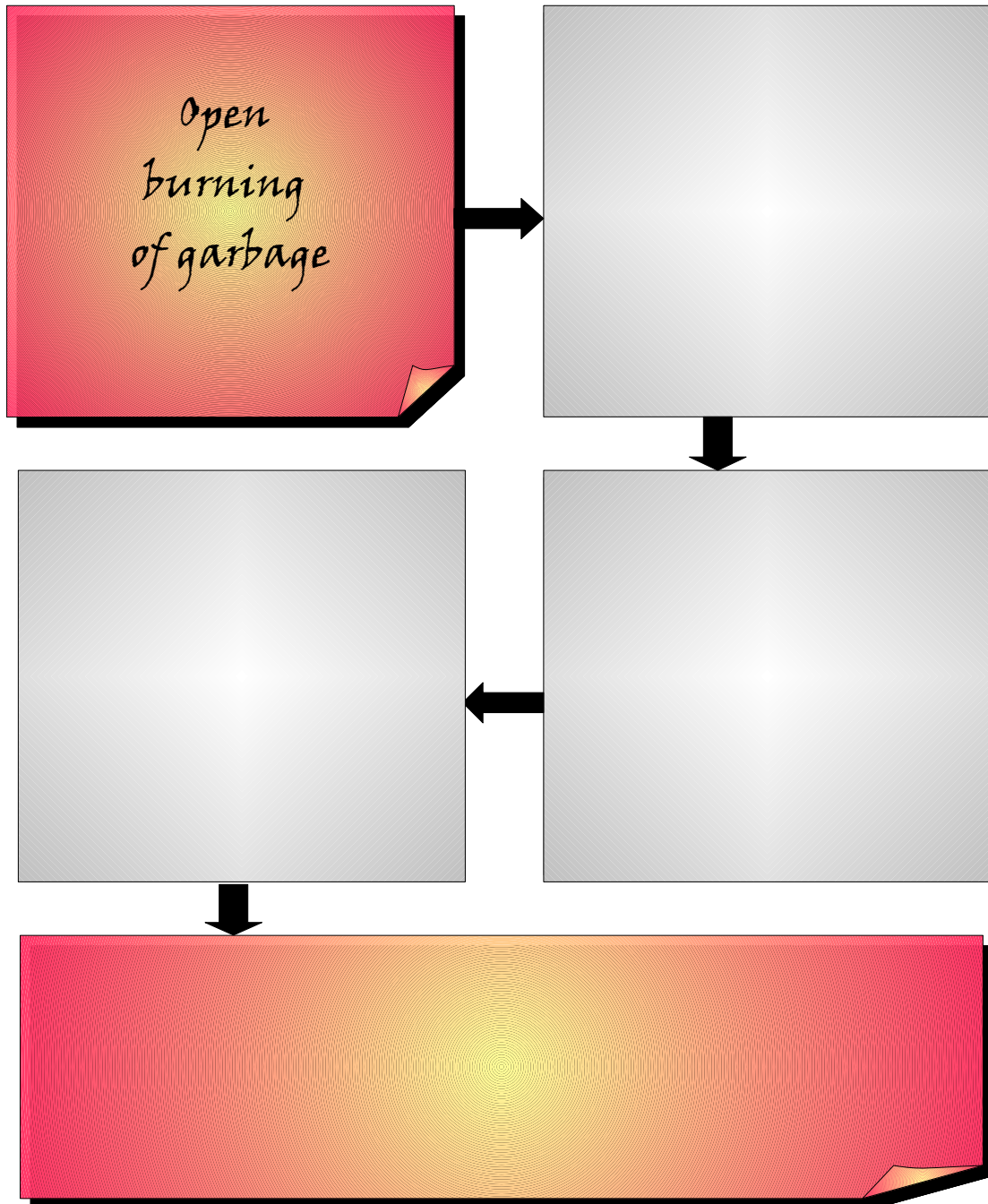


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Student Activity Sheet 5A
“Cause-Effect in Graphix”

Directions: Draw out cause-effect statements from the text and arrange them in a suitable order on the chain below. The first statement serves as your starting point.





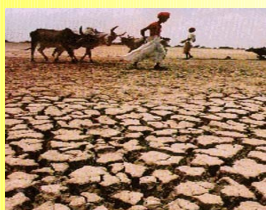
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Student Activity Sheet 5B
“Cause-Effect in Graphix”

Directions: Give the effects of the given causes and the causes of the given effects.

Causes



**droughts
and
fires**



Effect

Effect

Effects



**floods
and
landslides**



Cause

Cause

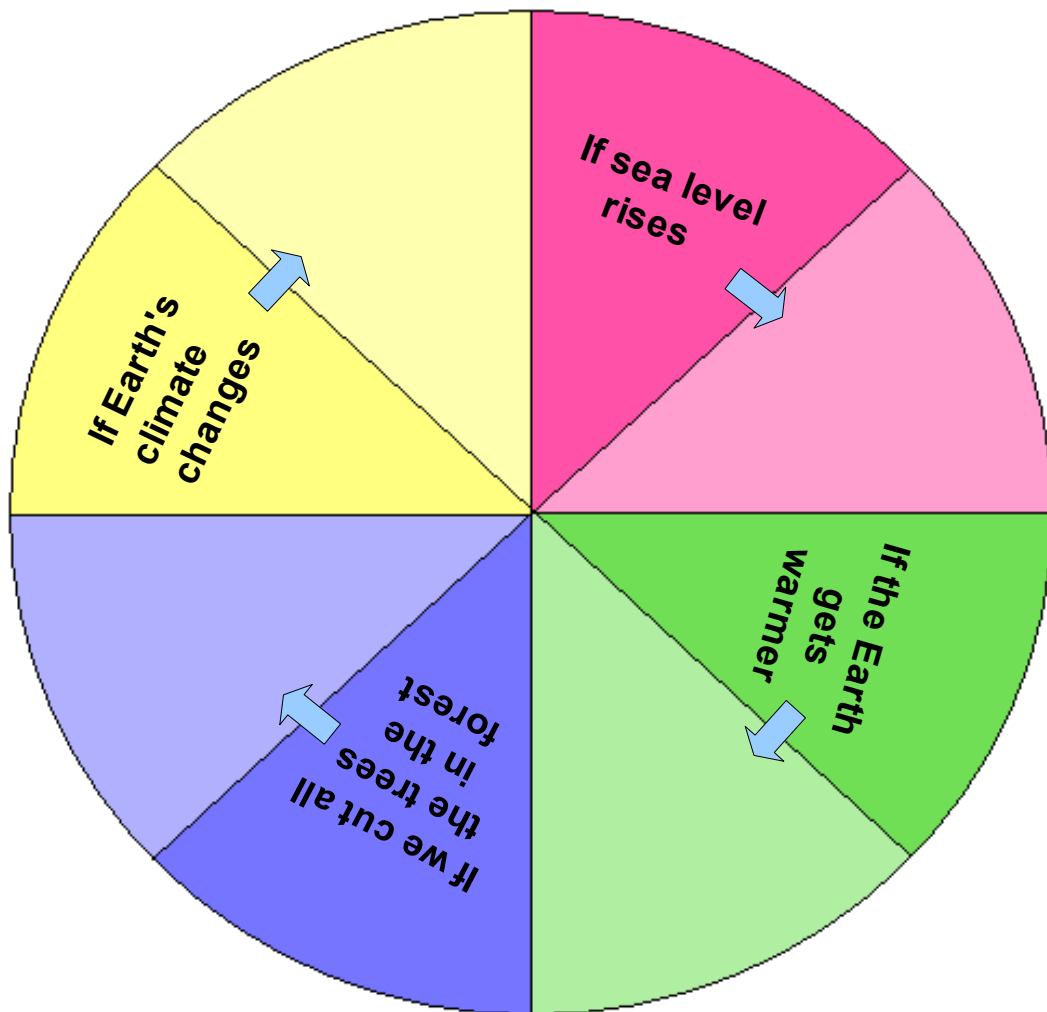


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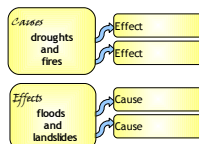
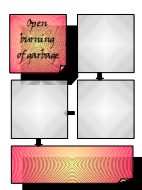
Student Activity Sheet 5C
“Cause-Effect in Graphix”

Directions: Supply effects to the given causes. Write your answers on the part of the wheel where the arrows point out.





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Assessment 4 “Cause-Effect in Graphix”

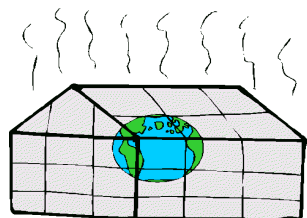
Directions: Use this scoring rubric to assess each group's output in graphic organizer during Activity 5 “Cause-Effect in Graphix”.

Group No. _____ Group Members: _____, _____, _____, _____, _____

INDICATORS	Very Good (3)	Good (2)	Needs Improvement (1)	TOTAL SCORE
Causes/Effects/Solutions (According to group task)	The graphic organizer is completely filled with the necessary informations	The graphic organizer is filled with the necessary informations	The graphic organizer is not filled with the necessary informations	
Clear composition	Composition of the informations is clearly and correctly written.	Composition of the information is not so clear but could be understood.	Composition of the informations is difficult to understand.	
Language conventions	No capitalization, spelling, or punctuation errors	One to three capitalization, spelling, or punctuation errors	More than six capitalization, spelling, or punctuation errors	
TOTAL SCORE				



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Assessment 5
“Global Warming: Global Warning”

Directions: Use this scoring rubric in assessing each group's output in writing a report about Activity 6 “Global Warming: Global Warning”.

Group No. _____ Group Members: _____, _____, _____, _____, _____

	Accomplished (3 points)	Developing (2 points)	Beginning (1 point)	SCORE
Organization	Good organization, details are logically ordered , sharp sense of beginning and end	Somewhat organized but details jump around, start and end are unclear	Not organized, details make no sense	
Quality of information	Supporting details specific to subject matter	Some details are somewhat sketchy	Unable to write specific details	
Structure (Grammar and Spelling)	All grammar and spelling are correct	More than two grammar and/or spelling errors	Very frequent grammar and/or spelling errors	
TOTAL SCORE				



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Teacher Resource Material 4
“Present, Past and Future”

Directions: Read each of the sentences below. After reading each, let the groups fill in the columns 2-5 of SAS 6. Continue reading the next sentence, only, if all the groups have finished doing their tasks.



WATER

Humans and animals drink water in order to live.

GARBAGE

Improper disposal of garbage makes the air, land and water polluted.

TREES

Trees supply oxygen, reduce noise pollution and absorb dust and other air pollutants.

AIR

Some industrial companies release smoke that can cause air pollution.



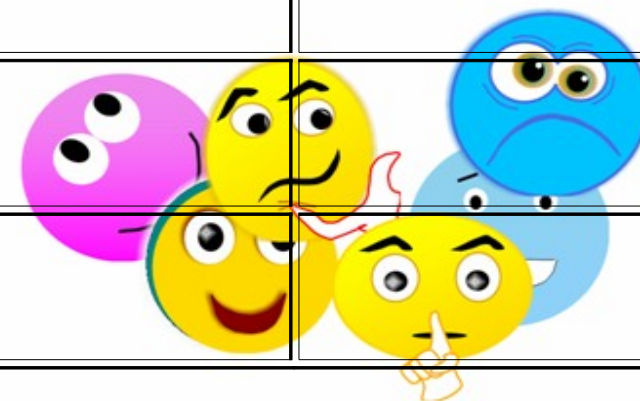
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Student Activity Sheet 6
“Present, Past and Future”

Directions: Listen as the teacher reads each of the sentences about the given prompt . List down the action word/s heard from the sentence on the second column, write a general truth using simple present form of the verb on the third column, write a sentence using habitual past “use to + verb” on the fourth column, and write a sentence using future form “going to + verb” on the fifth column. The first row serves as your example.

PROMPT	Action word/s heard from the sentence	Simple present form of the verb (shows general truth)	Habitual past form of the verb (used to + verb)	Future form of the verb (going to + verb)
WATER	drink	Water is important to life.	I used to consume 3 pails of water when taking a bath.	I am going to consume only 1 pail of water when taking a bath.
GARBAGE				
TREES				
AIR				





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Student Activity Sheet 7
“Help Prevent Global Warming”

Study the meaning of each two-word verb in the box. Fill in each blank below with an appropriate two-word verb to give each sentence a sense.



*clean up	=	clean	*get around	=	have mobility
*go over	=	review	*give out	=	to give many people
*give up	=	quit a habit	*keep on	=	continue doing
*look for	=	try to find	*go against	=	oppose
*turn off	=	stop the energy flow	*back up	=	support



10 WAYS TO HELP PREVENT GLOBAL WARMING

_____ recycling waste materials.	_____ your used clothing.
_____ with a bike.	_____ the lights when not in use.
_____ smoking.	_____ environment friendly organizations.
_____ your backyard.	_____ solutions to air pollution.
_____ illegal logging.	_____ your lifestyle.



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Teacher Resource Material 5

Common Two-Word Verbs

VERB	MEANING	EXAMPLE
calm down	relax after being angry	You are still mad. You need to calm down before you drive the car.
cheer up	become happier	She cheered up when she heard the good news.
come from	originate in	The art of origami comes from Asia.
cross out	draw a line through	Please cross out your old address and write your new one.
hand in	submit	I have to hand in my project by Friday.
go ahead	start, proceed	Please go ahead and eat before the food gets cold.
hang on	wait a short time	Hang on while I grab my coat and shoes!
pass away	die	His uncle passed away last night after a long illness.
pass out	faint	It was too hot in the church that an elderly passed out.
run away	leave unexpectedly, escape	The child ran away from home and has been missing for three days.
turn down	refuse	I turned down the job offered to me by the company.
work out	exercise	I work out at the gym three times a week.



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Assessment 6
“Present, Past and Future”

Directions: Read and underline all the verbs in each sentence in the box. Write a general truth about it on the first column, write a sentence using “use to + verb” on the second column and write a sentence using “going to + verb” on the third column.

droughts, fires and diseases

1. As the climate heats up, droughts become more frequent and severe in some locations.
2. Fires destruct many lives and properties during hot season.
3. When earth warms up, diseases such as malaria, dengue and high fever become more common.

Statement of general truth using simple present form of the verb	Statement using habitual past form of the verb “use to + verb”	Statement using future form of the verb “going to + verb”



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Assessment 7

“Campaign Against Global Warming”

Directions: Use this scoring rubric to assess your participation and your group's teamwork for the Activity 9 “Campaign Against Global Warming”

0 - never, 1 - sometimes, 2 - oftentimes, 3 - always



Self-Assessment

Circle your score.

I worked well with my group.	0	1	2	3
I shared ideas with my group.	0	1	2	3
I listened to the ideas of other members in my group.	0	1	2	3
I helped plan and do the assigned task.	0	1	2	3
I did my best in my group.	0	1	2	3

Group Assessment



Circle your score.

My group worked well together.	0	1	2	3
My group shared ideas with each other.	0	1	2	3
My group listened to each other in the group.	0	1	2	3
We all helped in planning and doing the assigned task.	0	1	2	3
We all did our best in the group.	0	1	2	3



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For the Teacher: Translate the information in this Learning Guide into the following matrix to help you prepare your lesson plans.

Stage	1. Activating Prior Learning	2. Setting the Context	3. Learning Activity Sequence	4. Check for Understanding	5. Practice and Application	6. Closure
Strategies						
Activities from the Learning Guide						
Extra activities you may wish to include						
Materials and planning needed						
Estimated time for this Stage						

Total time for the Learning Guide

Total number of lessons needed for this Learning Guide