

Note to Teacher: All About Climate Change

Background Information

Our Climate is changing because humans have increased the amount of Greenhouse Gases (GHGs) in the atmosphere. Greenhouse Gases are actually necessary, as they help to keep the earth's surface warm by trapping the earth's heat (the greenhouse effect). Without this warmth the earth would be unbearably cold. These Greenhouse Gases (GHG's) include Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O) and Ozone (O₃). The problem is that their concentrations have increased dramatically in the last century due to human activity. When we burn fossil fuels to provide electricity for our homes and businesses or when we cut down trees these actions release Carbon dioxide in the atmosphere. This is making the earth very, very warm (global warming) and in turn causing our climate to change.

About this Activity Sheet

This exercise is targeted to children between the ages of **9-11** years. As we discuss how climate change affects Jamaica and other countries across the globe, the words in bold form part of this topic area. In the summary of information section below, there are missing words with numerals underneath them. Each letter has its own number ranging from 1- 26. Children should fill in the letters, based on the Cryptogram (number chart) below. Note that some letters have already been filled in.

Skills developed

Children are developing critical thinking as they try to associate numbers with letters to complete the correct word. While reading, they learn new words while reinforcing words they already know (so their vocabulary increases). This exercise helps with spelling, especially words that are unfamiliar to children.

Importantly, children are also associating words in the cryptogram with a particular theme or topic. While they are searching for the numbers that match the letters, they are making a connection with the topic of climate change.

Teaching Aids

To assist in explaining the concepts and words more clearly in this sheet, it would be good to use visual aids e.g. pictures, flash cards. This is because children will be introduced to words such as deforestation, landslides and sea level rise, which may best be explained through visual aids.

Additional Sources of Information:

1. GOJ/ EU/ UNEP Climate Change Adaptation and Disaster Risk Reduction Project Brochures
 - Climate Change: Let's Change the way we treat our Coasts and Beaches
 - Climate Change: We have to Change
2. GOJ/ EU/ UNEP Climate Change Adaptation and Disaster Risk Reduction Project Fact Sheets.
<http://myspot.mona.uwi.edu/physics/csgm/climate-resources>

Answers

1	Global
2	Greenhouse
3	Gases
4	Atmosphere
5	Oil

6	Coal
7	Gas
8	Electricity
9	Storms
10	Hurricanes

11	Drought
12	Flooding
13	Deforestation
14	Landslides
15	Sea Level Rise



Climate Change-We have to change!

All About Climate Change

In Jamaica,

we are seeing some of the impacts of climate change. The island has experienced more intense _____
19 20 15 18 13 19

and _____ like Hurricane Sandy in 2012.
8 21 18 18 9 3 1 14 5 19

Farmers are losing their crops because of _____ or
4 18 15 21 7 8 20

_____ . _____
6 12 15 15 4 9 14 7 4 5 6 15 18 5 19 20 1 20 9 15 14
has caused a lot of _____ in communities
12 1 14 4 19 12 9 4 5 19

across the island. _____
19 5 1 12 5 22 5 12 18 9 19 5

in Negril, Jamaica has contributed to the losses of our beaches.

How is climate change affecting your community?





All About Climate Change

Name: _____

Age: _____

CLIMATE CRYPTOGRAM

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

Help Corey fill in the letters on the line that correspond to the numbers below, to form the correct word and complete the sentence.

Climate Change is a g l o b a l problem. Our Climate is changing because
7 12 15 2 1 12

humans have increased the amount of _____
7 18 5 5 14 8 15 21 19 5

_____ (GHG's) in the _____
7 1 19 5 19 1 20 13 15 19 16 8 5 18 5

For example, when we use _____, _____ and _____
15 9 12 3 15 1 12 7 1 19

to provide _____ to our homes and
5 12 5 3 20 18 9 3 9 20 25

_____ businesses we release greenhouse gases into the atmosphere.

Greenhouse Gases are important because they keep the earth's surface warm (this is called the greenhouse effect). The problem is that too much of it in the atmosphere makes the earth too hot.