

Note to Teacher:

Adapting to 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.

Some of the impacts of climate change include (i) rising sea levels that threaten critical infrastructure on the coast e.g. hotels, roads, sea ports, communities (ii) warmer sea temperatures that cause damage to the coral reefs that help preserve our coastlines and are habitat for fishes, and (iii) more intense storms and hurricanes which cause flooding and destruction. The more these things happen is the more that we are reminded that we have to change the way we live! We have to learn how to live with the changes in climate and to protect ourselves from the impacts they are and will continue to cause. In other words, we have to learn to **adapt**.

About this activity sheet

This exercise is targeted to children between the ages of **9-11** years. Use the activity sheet as an aide to spur a discussion about the concept of adaptation to climate change. Ask your students to search for the bold words in the passage provided in the find-a-word puzzle. The words in bold relate to the topic of Adaptation. Before or after finding the words, discuss how they relate to Adaptation.

Skills Developed

While reading, children will learn new words and reinforce words they already know. This exercise also helps with spelling, especially of words that are unfamiliar to children.

Children are associating the words in the passage with a particular theme or topic; so while they are searching for the words, they are making a connection with the topic of Adaptation.

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>



Adapting to Climate Change

Name: _____

Age: _____

Instructions: Read the passage below paying close attention to the **bold** words. When you finish reading, help Corey find the words in **bold** shown in the puzzle below.

ADAPTING TO CLIMATE CHANGE

Our Climate is changing, because humans have increased the amount of greenhouse gases in the atmosphere. An example of a greenhouse gas is Carbon Dioxide. When we burn **fossil fuels** to provide electricity for our homes and businesses it releases Carbon Dioxide into the atmosphere. The Carbon Dioxide helps to trap heat and makes the earth much hotter. A hotter earth causes our weather to change and affects things like our forests, animals and oceans. When we get more droughts or more intense hurricanes our lives are also affected.

Adaptation is all about making places safer or doing the right things to **protect** against the **negative** effects of **Climate Change**. There are some things that we can do to adapt to climate change. We can:



- Protect our **Forests** e.g. planting more **trees**, to replace those that were cut down especially in the **watershed** areas.
- Protect our **Coast** e.g. replanting **mangroves** and taking care of coral reefs.
- Be prepared for extreme weather events like storms by **listening** to important **weather messages** on the TV/ Radio and



preparing our homes with tips from the Office of Disaster Preparedness and Emergency Management (ODPEM) and the Meteorological Service of Jamaica (Met Service).



Adapting to Climate Change

R F O S S I L J T W V D Y A P
 E U H R S M E V L A A N R D R
 E E A T D E W E A T H E R A E
 F L A C L I M A T E N G E P P
 S S N E R S R O R R A A F T A
 K E J T S A O C F S C T L A R
 C G C O R A L T O H T I T T I
 H A C R H E P T R E T V T I N
 A S A P T A E I E D T E T O G
 N S C S H P P S S H T A T N H
 G E C G N I N E T S I L T S B

What else can you do to adapt to climate change?

Fossil	Climate	Coast	Weather
Fuels	Change	Mangrove	Messages
Adaptation	Forest	Coral	Preparing
Protect	Trees	Reefs	
Negative	Watershed	Listening	



Adapting to Climate Change

Answers

R F O S S I L J T W V D Y A P
E U H R S M E V L A A N R D R
E E A T D E W E A T H E R A E
F L A C L I M A T E N G E P P
S S N E R S R O R R A A F T A
K E J T S A O C F S C T L A R
C G C O R A L T O H T I T T I
H A C R H E P T R E T V T I N
A S A P T A E I E D T E T O G
N S C S H P P S S H T A T N H
G E C G N I N E T S I L T S B
E M A N G R O V E S T A T S A