TEACHER RESOURCE GUIDE

EPISODE 10: HOW THE WORLD CAN TACKLE CLIMATE CHANGE

Brief Description

Rapid Climate change is a big problem. Luckily, it's one we can tackle. But it will take the work of every nation on earth, especially the ones with lots of power plants, cars, and factories, and other things that use lots of energy. As you can see, China and The United States make most of the carbon dioxide. That means that the leaders of those nations, along with the others, have a special responsibility to reduce carbon dioxide and keep the planet livable in the future.

Keywords/Key Concepts

Carbon Dioxide	A gas that is produced by all animals and plants during respiration and used by plants during photosynthesis. Carbon dioxide is also the by-product of burning fossil fuels.
Carbon Emissions	Carbon that is released into the air through the burning of fossil fuels such as coal, gas or oil.
Efficiency	Achieving maximum productivity with minimum wasted effort.
Public Transportation	Subways, trains, busses
Solar	Of the sun.
Wind	Moving air.

TEACHING IDEAS WHEN USING VIDEO IN THE CLASSROOM

While watching television is often seen as a passive viewing experience, there are ways to turn it into a springboard for student interaction. Here are some general teaching strategies that enhance the use of video materials in your classroom by targeting specific skill sets.

- **Predicting**
- **Viewing Comprehension**
- **Listening Practice**
- **Speaking Practice**
- **Discussion**

PREDICTING

With picture and audio on:

- Use the pause control to stop a scene and have students predict what will happen next.

- Use the pause control to stop after a particular line of dialogue and have students predict the next line.

With audio off:

- Have students predict the situation and characterizations based on viewing an entire scene without the sound.

- Have students predict lines of dialogue after viewing an entire scene without the sound.

- Have students predict individual lines of dialogue by using the pause button to stop the scene.

With picture off:

- Have students predict the situation and characterizations by listening to the soundtrack without watching the picture.

VIEWING COMPREHENSION. You can check students' understanding of the situation in the following ways:

Before watching:

- Give students specific things to look and listen for before they watch a scene.

While watching:

- Freeze-frame the scene by using the pause button and check students' understanind

While watching or after watching:

- Have students answer comprehension questions you devise.

After watching:

- Give students cloze scripts and have them fill in missing words in dialog lines.

LISTENING PRACTICE. Have students focus on the dialogue contained in a scene by listening for particular vocabulary words, structures, or functional expressions:

TV Dictation:

- Have students write dialogue lines as they view them, using the pause control to stop the scene after each line.

Cloze Scripts:

- As students view a scene, have them fill in missing words in a cloze script you have created.

SPEAKING PRACTICE

Role Plays:

- Have students role play a scene, practicing the lines of dialogue for correct intonation and emphasis.

On-Location Interviews:

- Have students circulate around the classroom and interview each other using questions contained in the video segment. Students can then report to the class about their interviews.

Information Gap:

- Have half the class see a segment without audio and the other half hear it without the picture. Students from each half of the class then pair up, talk about the situation and characters, and act out the scene.

Strip Dialogue Scenes:

- Write dialogue lines on separate strips of paper, distribute them randomly, and have students recreate the scene by putting the lines together.

DISCUSSION

- Have students discuss the scene, plot and characters' actions, thoughts, and feelings.

- Have students think about what the characters in the scene are thinking but not saying. Students can create these interior monologues, present them to the class, and discuss any varying opinions about characters' inner thoughts during the scene.

- Have students tell which characters they identify with and explain why.

Adapted from *Side by Side TV Reference Guide.*

Episode 10: How the World Can Tackle Climate Change

Rapid Climate change is a big problem. Luckily, it's one we can tackle.

But it will take the work of every nation on earth, especially the ones with lots of power plants, cars, and factories, and other things that use lots of energy.

As you can see, China and The United States make most of the carbon dioxide. That means that the leaders of those nations, along with the others, have a special responsibility to reduce carbon dioxide and keep the planet livable in the future.

By now, you understand that having a planet with a stable climate means reducing the amount of CO2 in the atmosphere to 350 parts per million.

So how do we get there? There are actually lots of solutions and, like a puzzle, when you put all the pieces together, they create the picture of a better future.

Let's start with the biggest source of carbon dioxide: Burning fossil fuels to create energy for homes, buildings, and factories. Instead of burning coal, oil, and gas to make energy, we can start using more sources of power that don't -release carbon dioxide, things like solar and wind power.

Our cars and trucks are another big source of carbon dioxide. Using vehicles that run on electricity and fuels that make less carbon dioxide is an important step. Investing in more public transportation -- subways, trains, and busses -- would also reduce the amount of gasoline people burn.

Another part of the puzzle is protecting our forests from being cut down, so they can do their job of absorbing carbon dioxide.

We can also design and improve our cars, homes, factories, and buildings so they don't use as much energy. This is called efficiency, and making things more efficient would take a huge chunk out of our energy use.

All of these changes require big changes, changes that leaders who care about the future can make happen. For example, governments can require that buildings and cars be more efficient. They can invest in university research that invents new batteries for electric cars. And they can make laws that make it easier and cheaper to use solar or wind energy, or ones that require preserving our forests.

The great thing is that all of these changes can create awesome new jobs for people. Imagine yourself designing an electric car, or helping to build a super fast train, or working on a windmill far out at sea. A livable future is also an exciting one.
To get rapid climate change under control and to make sure the planet remains livable, we need to stop that yearly rise, and bring carbon dioxide levels back down to 350 parts per million.

How do we get there? That will take good decisions by governments around the world, as well as everyday people.

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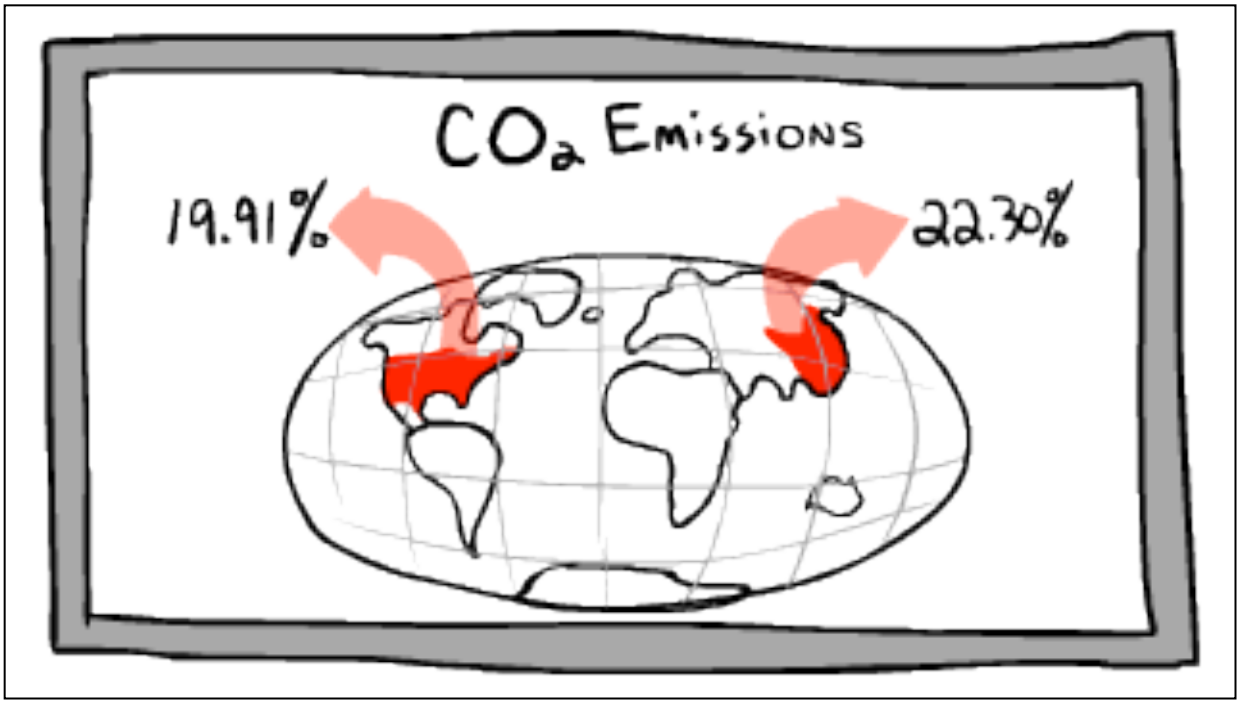

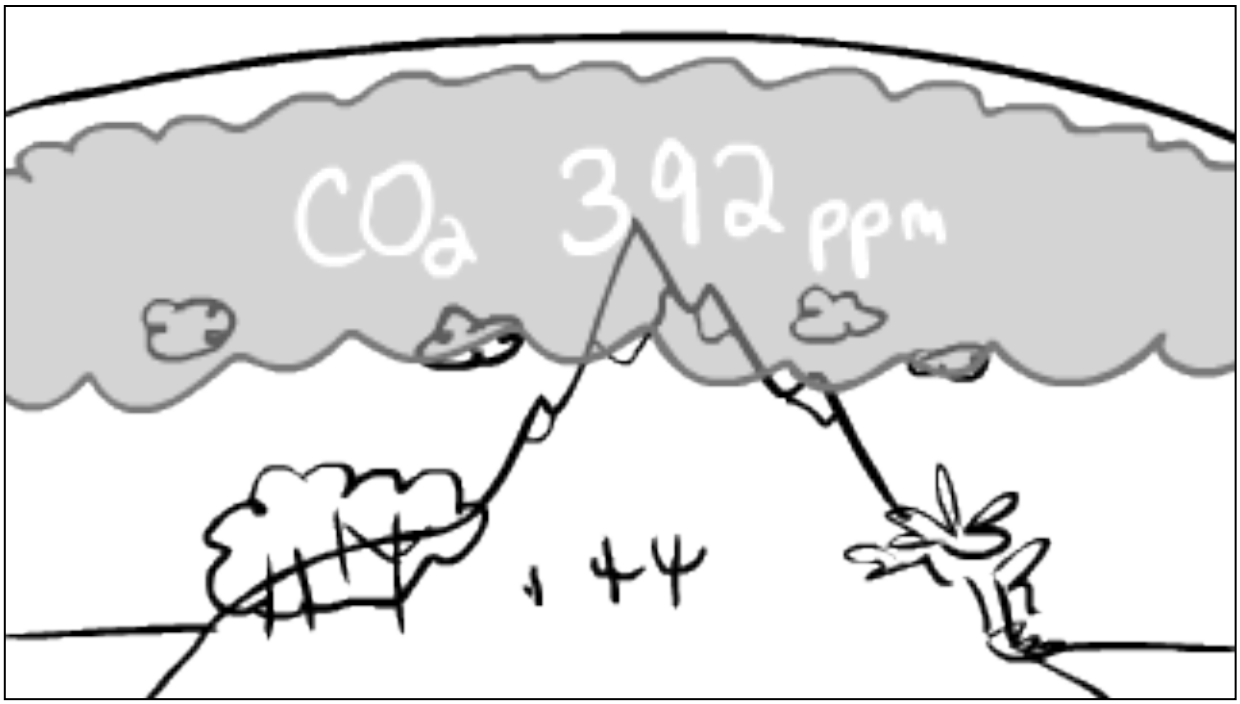
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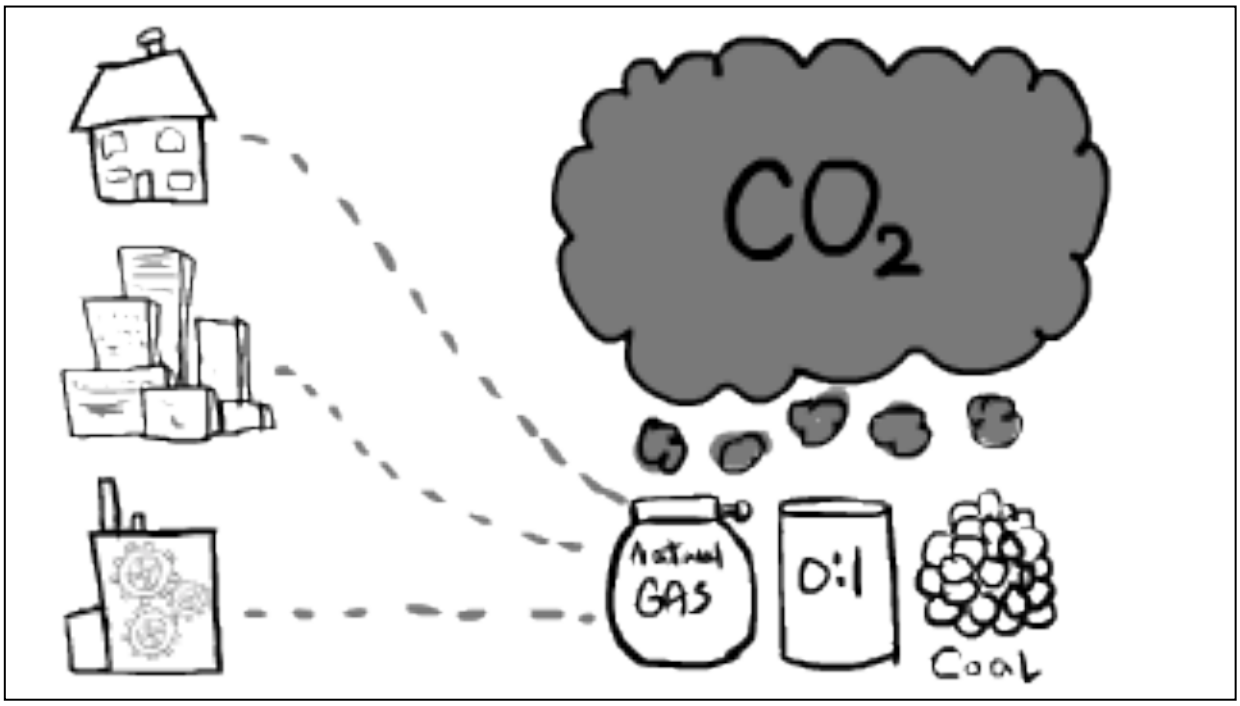
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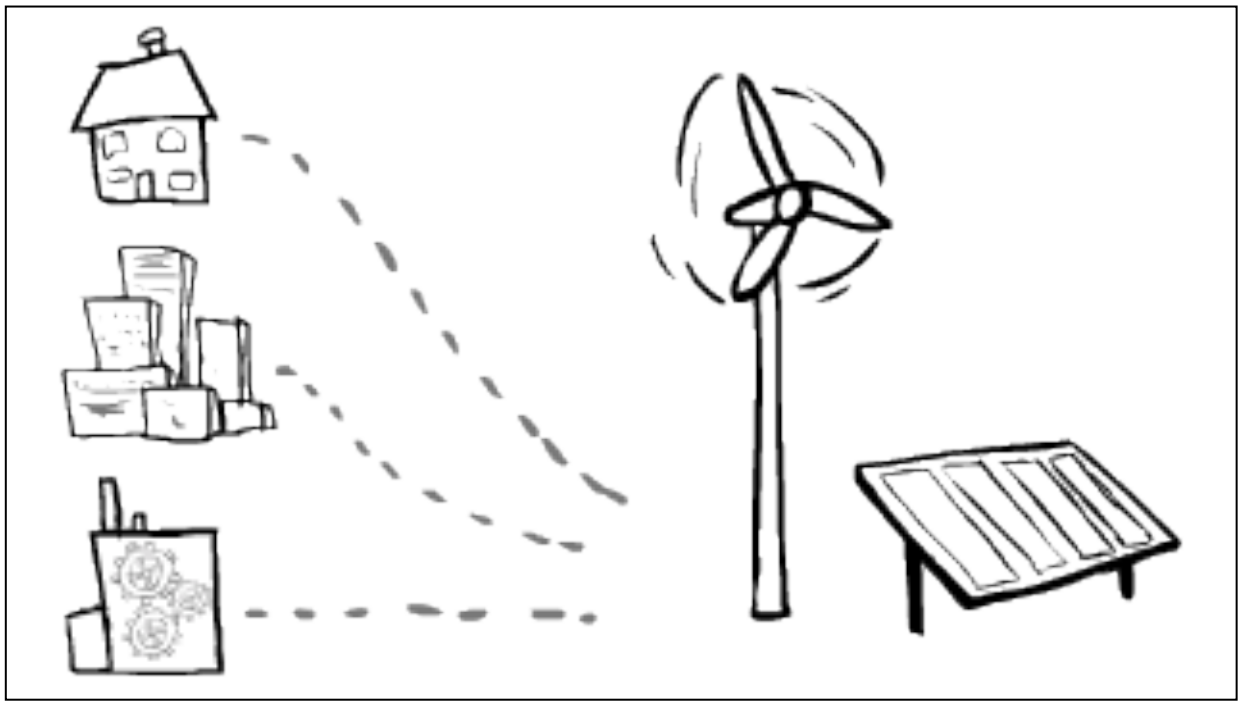

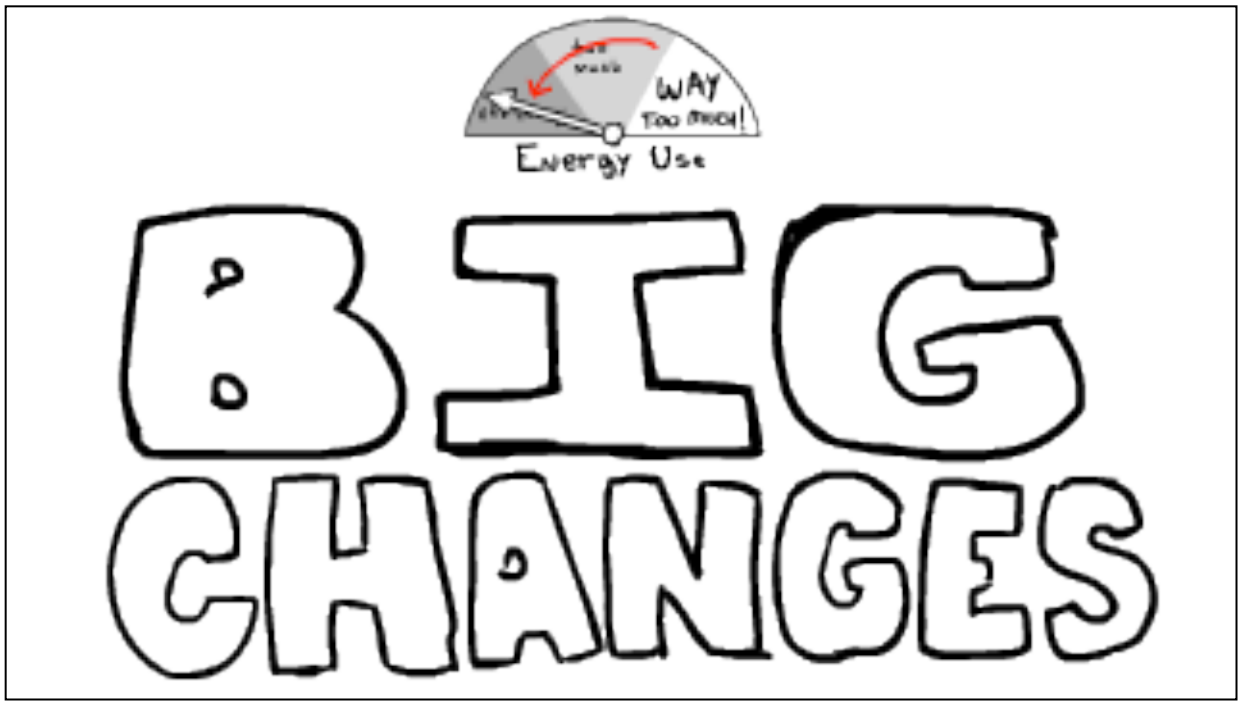
WAY
Too much!
Energy Use
BIG
CHANGES