

El Niño skit for primary grades

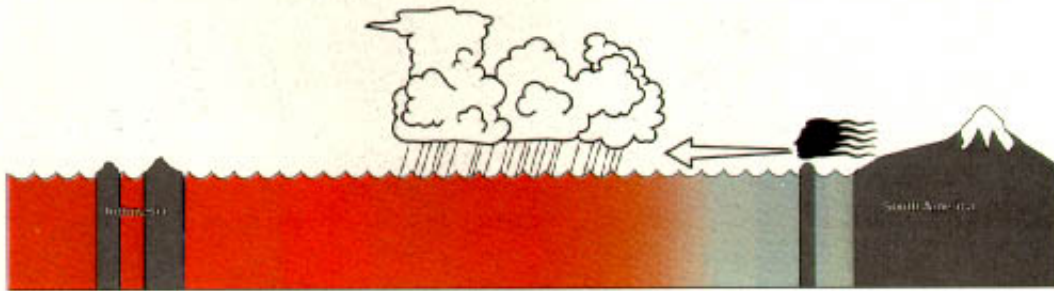
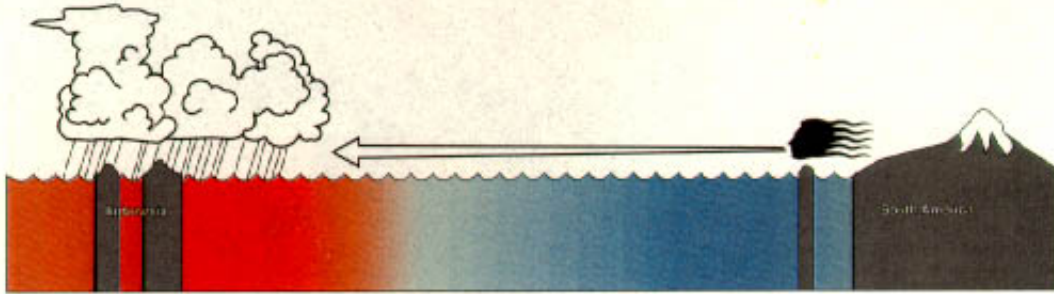
Introduction: This skit is intended to show primary grade students how an El Niño 'works'. The activity will use a minimum of from 5 to 7 students:

Background:

The Pacific Ocean is the largest ocean on Earth. The weather and climate condition known as El Niño is caused by a change in the wind pattern over the equatorial Pacific Ocean. This change leads to changes in how the Pacific distributes heat to other parts of Earth, and to changes in weather and climate. One of the changes in weather caused by an El Niño is a redistribution of rainfall around the Pacific Ocean. Because the Pacific is so big, a large El Niño can also alter the weather in places far from the Pacific.

During a normal year, strong, easterly surface winds (winds blowing from the east to the west) along the equator, cause upwelling of cold water along the coast of South America. Warmer waters are pushed westward along the equator and they form a warm water pool in the tropical western Pacific Ocean. Just as warm water in the bathtub causes moisture to accumulate in the air, warm seawater creates a lot of moisture in the air above. Because of the moist air, countries in the western Pacific such as Indonesia normally have very high rainfall.

If the easterly surface winds weaken, or reverse, the warm pool moves from the western Pacific to the central and eastern Pacific Ocean. This situation is known as an El Niño, and when this happens, heavy rainfall occurs along the coasts of Peru, Mexico and California instead. The warm water also acts as a cap that prevents cold water from upwelling along the eastern edge of the Pacific Ocean.



Purpose: This skit is intended to show primary grade students how known as El Niño happens. The activity will use a minimum of from 5 to 7 students: **Setup:** From left to right from the perspective of the audience, place the students like this:

1. Coasts of Indonesia and Australia (1 or 2 students facing right. If two students they should be side by side);
2. Warm water with cloud overhead (1 student facing Indonesia and Australia. You can simulate clouds with a mass of cotton balls or some other white fluffy material);
3. Easterly surface wind (1 student facing Indonesia and Australia);
4. Upwelling cold water (1 student facing Indonesia and Australia but standing closer to the South and North American Coastlines);
5. South and North American coastlines (1 or 2 students facing Indonesia and Australia).

Props: In the normal condition, the student(s) representing the coasts of Indonesia and Australia can have rain gear on. In the El Niño condition, these students will be fighting fires and dying of thirst.

The warm water student should have a halo of "clouds."

The cold water student can have a garment covered with fish (fake of course) to represent the upwelling nutrient rich water that attracts

fish and fishermen.

In the normal condition, the student(s) representing the coast of South America can have fishing poles and can pretend to be catching a bumper crop of fish. In the El Niño condition these students will have on rain gear and can have oars to pretend they are rowing through flood waters. The North American coast student will also have on rain gear and carry oars. In addition, someone can pretend to be surfing extra high waves in Southern California. To show the North American Coast conditions further north you can have someone with the fish coat on to show that the fish that were off the South American coast during normal conditions have now moved further north seeking the nutrient rich cold water.

Prop List

- Rain Gear
- Fishing Poles
- "Fish" Covered Garments
- Halo of Clouds
- Water Hose
- Empty Canteen
- surfboard

The Performance: The teacher can give the class or audience background information on El Niño. The teacher or a student will then tell the audience that they are about to see a demonstration of what happens to worldwide weather patterns when we have the condition known as El Niño. After the students are set up, the teacher gives the cue by stating "In the normal condition, the easterly wind is blowing very hard across the Pacific Ocean."

The easterly wind student then blows, gyrates, and moves their hands in the direction of the cold and warm water students.

The teacher continues: This pushes the warm water across the Pacific Ocean toward Indonesia and Australia. Just like the warm water in your bathtub produces clouds of steam in the bathroom, the warm water in the Pacific carries with it, its rain clouds.

The warm water student moves across the stage toward Indonesia

Teacher: As the warm water moves west, the nutrient rich cold water can come up along the coast of South America. This is called upwelling. Because fish follow this source of food, upwelling means lots of fish for the fishermen. This makes the fishermen happy.

The fish covered student can begin to move around, and the South American coast fishermen can go into action.

Teacher: But in the El Niño condition, the wind gets very lazy and doesn't blow nearly as hard. Sometimes it just stops altogether.

The easterly wind acts accordingly.

Teacher: When this happens, the warm water stays closer to the South American Coast, the cold water can't upwell, so the fish don't have anything to eat. Instead, there is a lot of warm water piled up against the coasts of South and North America. Since the warm water always has its halo of clouds, there is heavy rain all along these coasts. When the rain is confined to the eastern side of the Pacific, the western Pacific countries like Indonesia and Australia experience drought.

The Indonesia and Australia coast students pant, and gag from thirst, and use their fire hoses to put out the brush fires.

Teacher: So we can see that the El Niño condition can create dramatic changes in climate all over the world.

Creator: Annie Richardson

See [SpacePlace](#) for further information and a great El Niño pudding recipe.

El Niño Activity / AHR v.2 / 29 July 1999