

ENSO (El Niño/Southern Oscillation) Investigation Worksheet

Objectives

- Contrast conditions in the equatorial Pacific during El Niño, La Niña and normal years
- Calculate and interpret correlation coefficients between Cold Tongue Index (CTI) and precipitation data
- Analyze precipitation data from the Pacific Northwest during El Niño and La Niña years

Part I: ENSO Background

✪ Textbook references: pages 221-225 (Garrison, Oceanography) and pages 92-96 (Kump, Earth System).

1. **Watch** the [El Niño and La Niña animation](http://esminfo.prenhall.com/science/geoanimations/animations/26_NinoNina.html) (http://esminfo.prenhall.com/science/geoanimations/animations/26_NinoNina.html). Pay attention to the labels on the arrows. Describe the following factors during normal, El Niño and La Niña conditions.

Factor	Normal	El Niño	La Niña
Location of low pressure system, generating rainfall (eastern, mid or western Pacific)			
Coastal winds along the west coast of South America (compass direction and relative strength)			
Relative strength of upwelling off the coast of South America (weak, normal, strong)			
Position of thermocline (shallow, deep, normal)			
Location of warm surface water (eastern, mid or western Pacific)			

