



Name: _____ Date: _____ Class: _____

Title: NDVI Using Units in Calculations
Teacher Sheet

There is an interesting video on the Honduras Ecological Forecasting page about NDVI. It is called Let's Focus on Preservation not Deforestation. You can watch it here:

<https://develop.larc.nasa.gov/2018/summer/HondurasEco.html>

Two minutes into the video, the formula for calculating NDVI is given.

1. Why is NDVI dimensionless? **(It is a ratio of two numbers with the same unit. The units cancel each other.)**
2. How is NDVI used to help determine changes in the forest? **(Changes in the number indicate changes in vegetation. It can be used to monitor the health of vegetation, monitor ecosystem disturbances, determine where vegetation is under stress or thriving. Higher numbers indicate more vegetation, while lower numbers indicate sparse vegetation.)**
3. Calculate the following NDVI ratios.
 - a. Reflectance of red-light 0.06, Reflected near infrared light 0.5 **(0.79)**
 - b. Reflectance of red-light 0.25, Reflected near infrared light 0.4 **(0.23)**
4. Can NDVI be negative? Why or why not? What does it mean? **(Yes. Negative values usually indicate the presence of water, clouds or snow.)**

Credits/URL

[NDVI: Satellites Could Help Keep Hungry Populations Fed as Climate Changes](#)

