



Green Our Planet's School Garden Curriculum

Title: **Soil Degradation**

Topic: What is Soil Degradation? with Farmer Tom

Link: <https://www.youtube.com/watch?v=h1peujNCFVU>

Grade Level: 4

Standards: 4-ESS2-1 (at 0:45)

Objectives: (at 1:12)

- Understand what soil degradation is
- Understand causes of land degradation (farm run-off, habitat destruction, pesticide and fertilizer use, pollution, erosion) and how it affects the environment.
- Identify ways to prevent soil degradation in school gardens

Segments:

- Teacher 0:25 – 1:05
- Student 1:07 – 12:44
- Quiz 12:47 – 14:34

Concepts and/or Topics Covered & Vocabulary Notes:

- Healthy plants come from healthy soil
- What is soil made of?
- Soil vs dirt
- Poor soil management led to historical disaster (Dust Bowl)
- Soil degradation
- Ways to prevent soil degradation
- Vocabulary section at end (14:37)

Nutrition
Nutrients

Habitat
Soil degradation

Erosion
Amendments

Hypothesis

- Possible additional vocabulary

Roots
Vitamins

Minerals
Dirt

Soil
Organic Matter

Fungus
Pesticides

Methodology:

- Historical photos of causes of Dust Bowl
- Great time-lapse photography of seeds germinating
- Question (3:03) What is healthy soil? What is unhealthy soil?
- Discussion with partner (3:59) What is soil made of?
- Question (4:21) What is the difference between soil and dirt?
- Quiz at end includes open-ended, multiple choice, and true / false questions

Possible Supplemental/Follow-up Activities:

- None discussed