

CLASSROOM RESOURCE: Fire Safety Squad: Danger Detectives!

What's the Mission? You're part of the Fire Safety Squad, and your job is to understand how scientists like Grant Pearce predict fire danger. You'll learn about soil moisture and how it affects the land and then become a Fire Danger Detective!

Part 1: Soil Moisture Superpowers!

Read the "Why Soil Moisture Matters for Fires" section again. It tells you what happens when the soil is dry or wet.

Challenge: Draw two simple pictures or create two mini-stories (2-3 sentences each) showing:

1. "The Dry Soil Story": What happens to plants and fire risk when the soil is *dry*?
2. "The Wet Soil Story": What happens to plants and fire risk when the soil is *wet*?

Hint: Think about what "cured grass" means!

Part 2: Fire Danger Decoder Challenge!

New Zealand uses a Fire Danger Rating System. Scientists use information like weather and soil dryness to decide if the fire danger is Low, Moderate, High, Very High, or Extreme.

Your Task: Look at the Fire Danger Rating descriptions (Low, Moderate, High, Very High, Extreme). For each scenario below, decide what the fire danger level would most likely be. Explain *why* you chose that level, using clues from the scenario and what you've learned about soil moisture and fire.

Scenarios:

1. Scenario A: It has been raining for three days straight, and the grass is really green and squishy underfoot. There's almost no wind.
 - Fire Danger Level: _____
 - Why? _____
2. Scenario B: It hasn't rained in a month. The sun is blazing, it's very hot, and there's a strong, gusty wind blowing. All the grass is brown and crunchy.
 - Fire Danger Level: _____
 - Why? _____
3. Scenario C: We had some rain last week, and the soil feels a bit damp, but it's been sunny for a few days now. The grass is mostly green, but there are some patches of brown. There's a light breeze.
 - Fire Danger Level: _____
 - Why? _____

Discussion Point:

- Why is it so important for wildfire scientists to understand soil moisture when predicting fire danger?
 - What's one thing YOU can do to help prevent wildfires, knowing that most are caused by people?
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