

Calculating the Creation and Spread of Forest Fires

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Area of Science: Life Science

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Problem: Our goal is to simulate the creation and spread of wildfires under different conditions.

Why is it Important?: It is important because it can help fire fighters plan where wildfires will appear and how they will spread, in order to put them out quicker, and identify them before they start. It could also be used to predict how controlled burns will affect the likelihood of uncontrolled wildfires, and how they will affect the ecosystem.

How we Plan to Work on it: We will start with a simple program that calculates the creation and spread of wildfires during both droughts and in climates with more precipitation. As time progresses, we will take into consideration more variables, such as different kinds of trees with different combustion temperatures. Our goal is to create a program that can accurately predict the creation and spread of wildfires using the variables input by the user, such as the amount of yearly precipitation, the types of trees, and the terrain.