

# Order-of-Magnitude Estimation

## How big is New Hampshire? (Level 2)

### **The Question**

What fraction of the land area of the Earth makes up New Hampshire?

### **Background**

The Earth is big, and states in the North East are fairly small. But how small are they?

### **The Solution**

## Education Standards

This OoM Estimation problems meets the following standards in **bold**:  
*Next Generation Science Standards (NGSS)*:

- Physical Sciences
  - Matter & Its Interactions
  - Motion and Stability: Forces and Interactions
  - Energy
  - Waves and Their Applications in Technologies for Information Transfer
- Life Sciences
  - From Molecules to Organisms: Structures and Processes
  - Ecosystems: Interactions, Energy, and Dynamics
  - Heredity: Inheritance and Variation of Traits
  - Biological Evolution: Unity and Diversity
- Earth and Space Sciences
  - **Earth's Place in the Universe**
  - Earth's Systems
  - **Earth and Human Activity**
- Engineering, Technology, and Applications of Science
  - Engineering Design

*Common Core Standards (CSS)*:

- **Counting & Cardinality**
- **Operations & Algebraic Thinking**
- **Numbers & Operations in Base Ten**
- **Number & Operations — Fractions**
- **Measurement & Data**
- **Geometry**
- **Ratios & Proportional Relationships**
- The Number System
- **Expressions & Equations**
- Functions
- Statistics & Probability