

## Next Generation Science Standards

### *The standards that apply to the Tracking Change Over Time lesson*

#### 4th grade

- Analyzing and Interpreting Data
  - Analyze and interpret data to make sense of phenomena using logical reasoning. (4-ESS2-2)
- ESS3.B: Natural Hazards
  - A variety of hazards result from natural processes (e.g., earthquakes, tsunamis, volcanic eruptions). Humans cannot eliminate the hazards but can take steps to reduce their impacts. (4-ESS3-2)

#### 5th grade

- ESS3.C: Human Impacts on Earth Systems
  - Human activities in agriculture, industry, and everyday life have had major effects on the land, vegetation, streams, ocean, air, and even outer space. But individuals and communities are doing things to help protect Earth's resources and environments.

#### Middle School

- Analyzing and Interpreting Data
  - Analyze and interpret data to determine similarities and differences in findings. (MS-ESS3-2)

- PS4.B: Electromagnetic Radiation
  - When light shines on an object, it is reflected, absorbed, or transmitted through the object, depending on the object's material and the frequency (color) of the light. (MS-PS4-2)
- ESS3.B: Natural Hazards
  - Mapping the history of natural hazards in a region, combined with an understanding of related geologic forces can help forecast the locations and likelihoods of future events. (MS-ESS3-2)
- ESS3.C: Human Impacts on Earth Systems
  - Human activities have significantly altered the biosphere, sometimes damaging or destroying natural habitats and causing the extinction of other species. But changes to Earth's environments can have different impacts (negative and positive) for different living things. (MS-ESS3-3)
  - Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise. (MS-ESS3-3),(MS-ESS3-4)

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