



Green Ninja Statement on AB 285 and Climate Change Education

Green Ninja is pleased to provide instructional materials that align with Assembly Bill 285 (AB 285), ensuring that students across California receive meaningful, actionable climate change education. Adopted by the state of California in 2016, Green Ninja supports educators and students with high-quality, NGSS-aligned science education through real-world, project-based learning that prepares students to become environmental leaders in their communities.

Alignment with AB 285 and NGSS Standards

Green Ninja addresses the key areas outlined in AB 285 and fulfills the NGSS standards. Below, the alignment is categorized into four critical focus areas with corresponding units and content descriptions.

1. Causes of Climate Change:

Grade 6, Unit 1 ([Energy and Climate](#)): Students explore the greenhouse effect and how fossil fuel combustion contributes to global temperature rise. Aligned with MS-ESS3-5, they ask questions to clarify evidence for climate drivers and apply principles of energy transfer (MS-PS3-3) by designing devices that minimize thermal energy transfer.

Grade 7, Unit 2 ([Petroleum](#)): Through lessons on fossil fuel use and the carbon cycle, students understand how human activity drives climate change. They analyze how natural systems respond to these impacts, integrating concepts from MS-ESS3-5.

2. Effects of Climate Change:

Grade 6, Unit 3 ([Weather and Climate](#)): Students collect and analyze data on weather patterns and regional climate differences, aligning with MS-ESS2-5. They develop models to describe atmospheric and oceanic circulation systems driven by uneven heating and Earth's rotation (MS-ESS2-6).

Grade 8, Unit 3 ([Earth from Space](#)): Using computational tools and satellite data, students evaluate the consequences of population growth and resource use on Earth's systems. This aligns with MS-ESS3-4, where students construct arguments for how human activities impact the planet.

3. Mitigation Strategies:

Grade 6, Unit 5 ([Reducing Pollution and Waste](#)): Students apply scientific principles to design methods for monitoring and minimizing human impacts, aligning with MS-ESS3-3. This unit also includes developing a model to describe the cycling of water through Earth's systems, aligning with MS-ESS2-4.



Grade 8, Unit 6 ([Future Energy](#)): This unit focuses on renewable energy solutions and optimizing solar energy systems to reduce carbon footprints. Students learn to propose sustainable solutions, fulfilling MS-ESS3-3 and supporting mitigation efforts.

4. Adaptation Techniques:

Grade 7, Unit 5 ([Water: Life and Danger](#)): Students analyze data on natural hazards and propose adaptive solutions to mitigate risks from catastrophic events, aligning with MS-ESS3-2.

Grade 8, Unit 4 ([Humans and Life](#)): By investigating the relationship between ecosystem changes and population dynamics, students construct arguments supported by evidence. This aligns with MS-LS2-4, emphasizing the role of biodiversity in building resilience against climate change.

Green Ninja's Commitment to Environmental Stewardship

At the core of Green Ninja's mission is a commitment to empowering students through a [proven framework](#) that connects learning to their personal experiences, nurtures empathy for their environment, and inspires meaningful action to address environmental challenges, including climate change.

Students who engage with our learning framework develop a deeper understanding of climate science concepts, a more positive attitude toward the environment, [and adopt personal behaviors that significantly reduce their carbon footprint.](#)

Each unit emphasizes critical thinking and real-world problem-solving, equipping students with the tools to innovate and act as environmental stewards. Projects range from designing energy-efficient homes and creating public service announcements to building sustainable community models and developing solutions for conserving water, protecting biodiversity, and improving soil health.

For more information, please visit www.greenninja.org.

Posted on behalf of Green Ninja by the California Department of Education, February 2025