My state has adopted the Next Generation Science Standards. Both standards were pulled from nextgenscience.org.

> MS-ESS3-3.Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.* [Clarification Statement: Examples of the design process include examining human environmental impacts, assessing the kinds of solutions that are feasible, and designing and evaluating solutions that could reduce that impact. Examples of human impacts can include water usage (such as the withdrawal of water from streams and aquifers or the construction of dams and levees), land usage (such as urban development, agriculture, or the removal of wetlands), and pollution (such as of the air, water, or land).]

The NGSS are designed to be broad enough to encompass most courses and approaches. A teacher can use this standard in units about the rock cycle (by focusing on the effects of mining, construction, and industry on the soil quality and rock weathering), weather/climate (by discussing air pollution, storm tracking, droughts, etc), and basic ecology and habitat destruction.

Because of this broad design, most of the standards readily lend themselves to global education. Since they are studying a human impact on the environment, global examples are abundant. By incorporating global examples, students will see the far-reaching impacts humans have on the environment, both locally and throughout the world. I could have students track cases of severe drought throughout the world on a Thinglink, or track the location and number of severe storms (hurricanes, typhoons, cyclones, even tornadoes) on multiple maps throughout the decades as a class project, and then have them compare the maps for trends.

I could have students do a similar activity with forest fires. Another modification could be to have students look for hope. They could place identify locations where people are working to minimize or monitor human impact on the environment. At the end of the lessons, students could then evaluate the solutions and develop modifications for similar issues locally.

I'd use a lab report as an assessment for these lessons. They'd aggregate their research from the map-building lessons and their design solution to develop an experiment to test the efficacy of their solution locally. I'd use their introduction as an assessment towards global education because they'd need to address the global competencies as they described their research and defended their hypotheses. Their conclusions could be used as informal assessments as well as they discussed failings of the experimental design and further steps to take to refine the solution additional testing.

While all of NGSS is truly designed with global education in mind, I feel that this standard is of the utmost importance. It specifically stresses the importance of scientific research, as well as the role and limitations in science.

> MS-ESS3-4.Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

[Clarification Statement: Examples of evidence include grade-appropriate databases on human populations and the rates of consumption of food and natural resources (such as freshwater, mineral, and energy). Examples of impacts can include changes to the appearance, composition, and structure of Earth's systems as well as the rates at which they change. The consequences of increases in human populations and consumption of natural resources are described by science, but science does not make the decisions for the actions society takes.]

Scientists do not develop policy. Science can, and should, inform policy, but, ultimately, the actions that policymakers and society take are entirely their own. This standard stresses the importance of human agency within their community, whether that is local or global.

Global perspective is obvious in this lesson. Students would need to examine population trends across the globe, as well as consumption rates of natural resources and waste outputs to truly address this standard. And, like the previous standard, this research could be graphically represented on Thinglink. This topic easily fits with a unit on the rock cycle (mining, soil quality, and land erosion), ecology (soil, water, and land quality and carrying capacity), weather (air pollution and global warming), and ocean systems (as we discuss overfishing, chemical spills, the Great Pacific Gyre, coral bleaching, and currents in general).

Additionally, they would need to research the perspectives of stakeholders within their own community, and abroad. For examples, to address anthropogenic climate change, students would need to research politicians (both "climate change deniers" and supporters), communities that are adversely affected by climate change, scientists, everyday people, and a few key industries. Students could engage in debates/discussions in which they take the role of a specific stakeholder and argue their point before an audience.

In the end, the students could put on a production where they come to some conclusion on the issue, combining their research from the first standard with what they've learned from the second standard. Ideally, showing that science presented information about the world, and human agents used that information to determine future policy. They would fairly and equitably address the views of all stakeholders.