

GLOBAL COMPETENCE MATRIX FOR SCIENCE

| INVESTIGATE THE WORLD | RECOGNIZE PERSPECTIVES | COMMUNICATE IDEAS | TAKE ACTION |
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| Students use science to investigate the world. | Students recognize their own and others' perspectives through the study of science. | Students communicate about science effectively with diverse audiences around the world. | Students use their scientific knowledge and skills to translate their ideas and findings into actions that improve conditions. |
| <p>Students:</p> <ul style="list-style-type: none"> Identify issues and frame investigable questions of local, regional, or global significance that call for a scientific approach or emerge from science. Use a variety of domestic and international sources to identify and weigh relevant scientific evidence to address globally significant researchable questions. Design and conduct a scientific inquiry to collect and analyze data, construct plausible and coherent conclusions, and/or raise questions for further globally significant study. Interpret and apply the results of a scientific inquiry to develop and defend an argument that considers multiple perspectives about a globally significant issue. | <p>Students:</p> <ul style="list-style-type: none"> Recognize and express their own perspective on situations, events, issues, or phenomena, and determine how that perspective along with their entire understanding of the world is influenced by science. Examine scientific ways of knowing and perspectives about science of other people, groups, and schools of thought, and identify the influences on those perspectives. Explain how cultural interactions influence the development of scientific knowledge. Explore and describe the consequences of differential access to scientific knowledge and to the potential benefits of that knowledge. | <p>Students:</p> <ul style="list-style-type: none"> Recognize and express how diverse audiences may interpret differently and/or make different assumptions about the same scientific information and how that affects communication and collaboration. Use varying scientific practices, behaviors, and strategies to verbally and non-verbally communicate scientific information effectively with diverse audiences, including the international scientific community. Select and use appropriate technology and media to communicate about science and share data with experts and peers around the world. Reflect on how effective communication affects scientific understanding and international collaboration in an interdependent world. | <p>Students:</p> <ul style="list-style-type: none"> Identify and create opportunities in which scientific analysis or inquiry can enable personal or collaborative action to improve conditions. Assess options, plan actions, and design solutions based on scientific evidence and the potential for impact, taking into account previous approaches, varied perspectives and potential consequences. Act, personally or collaboratively, in creative and ethical ways to implement scientifically-based solutions that contribute to sustainable improvements, and assess the impact of the action. Reflect on how scientific knowledge and skills contribute to their capacity to advocate for improvement locally, regionally, or globally. |

Global Competence is the capacity and disposition to understand and act on issues of global significance. The global competence matrices help explain Global Competence and how to apply it. They were created as part of the Council of Chief State School Officers' EdSteps Project, in partnership with the Asia Society Partnership for Global Learning.

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