



NAE Grand Challenges for Engineering	
The Challenge	What this challenge involves (middle school level)
Prevent nuclear terror	Engineer ways to secure materials, detect oncoming attacks, make a nuclear device harmless, and respond, cleanup, and communicate in case of a nuclear attack.
Manage the nitrogen cycle	Design ways to maintain a sustainable food supply including making improved fertilizers and recycling food wastes.
Develop carbon sequestration methods	Create ways to capture and store excess carbon dioxide.
Engineer the tools for scientific discovery	Design tools and instruments to help us gain new knowledge about the physical world and the biological world.
Additional information about these challenges	See the online NAE Grand Challenges for Engineering www.engineeringchallenges.org/challenges.aspx