Objectives: 1. Students will be able to illustrate that a material’s performance is connected to its structure.
2. Students will be able to discuss how a material’s performance is determined by its composition and the types of bonds within its structure.
3. Students will be able to list and describe the various types of crystal packing.
4. Students will be able to list and define the various types of crystal defects.

Materials: None.

Procedures: 1. Introduce and discuss the topic of material structure.
2. Give PowerPoint presentation on Material Performance

Assignment: 1. None.

Assessment: 1. Classroom Participation, Quizzes & Test.

Contact:
Daniel Steinberg, PhD
Director of Education and Outreach
Princeton University Center for Complex Materials/PRISM
316 Bowen Hall,
70 Prospect Ave., Princeton University
Princeton, NJ 08540
609-258-5598
dsteinbe@princeton.edu
Module: Material Structure
Focus: Module Introduction
Duration: 43 minute period

Teacher Notes: Have students copy the notes from the presentation.

Contact:
Daniel Steinberg, PhD
Director of Education and Outreach
Princeton University Center for Complex Materials/PRISM
316 Bowen Hall,
70 Prospect Ave., Princeton University
Princeton, NJ 08540
609-258-5598
dsteinbe@princeton.edu