The NISE Net learning framework describes three principles, which are supported by examples of the kinds of activities visitors do when they participate in our programs, exhibits, and media.

**Imagining the nano world**
- Explore the relative size of macroscale, microscale, and nanoscale objects
- Use tools (or models of tools) that allow us to investigate the nanoscale world
- Examine magnified images and models of the nanoscale world
- Talk about how we can apply our knowledge of the nanoscale world to create new technologies

**Exploring scale and properties**
- Observe phenomena demonstrating the relationship of scale, properties, and forces
- Manipulate materials and explore the resulting changes
- Reflect on the nanoscale world and how it works differently from the human-scale world
- Consider how knowledge about the nanoscale world allows us to create new materials and technologies

**Connecting nano and society**
- Recognize that nanotechnologies may help us solve problems that traditional technologies cannot
- Envision a future in which nanotechnologies are an important part of our everyday lives
- Evaluate the responsible development of nanotechnologies by considering values, risks, and benefits
- Discuss the role of individuals and groups in shaping the development of emerging technologies

Nanoscale Science Informal Learning Experiences:

NISE Network
Learning Framework

Nanoscale Informal Science Education Network public education experiences are designed to support the six interrelated strands of learning documented by the National Research Council:

**Developing interest in science:** Experience excitement, interest, and motivation to learn about science

**Understanding science knowledge:** Generate, understand, and use explanations, arguments, models and facts related to science

**Engaging in scientific reasoning:** Manipulate, predict, question, observe, and make sense of the natural and physical world

**Reflecting on science:** Reflect on science as a way of knowing and as a personal process of learning about phenomena

**Engaging in scientific practice:** Participate in scientific activities and learning practices with others, using scientific language and tools

**Identifying with the scientific enterprise:** Develop an identity as someone who knows about, uses, and sometimes contributes to science

The learning framework is a companion to the NISE Network content map, which articulates key science concepts for engaging the public in nanoscale science, engineering, and technology.

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