

What's **nano** about chocolate?

Foods like chocolate, mint, and oranges get their scent from tiny nano-sized molecules. Your sense of smell works by identifying the shape of scent molecules in the air.



Nano is all around us—in nature and technology.



What's **nano** about food packaging?

Nano-sized starch molecules make glue extra-sticky. Some fast food companies use this eco-friendly glue to stick graphics onto cardboard packaging.



Nano-sized things can behave in surprising ways.



What's **nano** about water?

New water filters use tiny nano-sized materials to purify drinking water. They're relatively simple and inexpensive, so they can be used all over the world to help prevent disease.

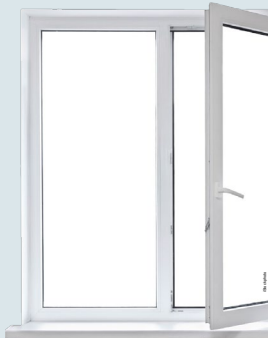


Nanotechnologies are becoming part of our daily lives.



What's **nano** about a window?

New nano-sized materials are helping to make windows that change color to let in less sunlight on hot summer days, and more warmth during the winter. This specialized glass could transform the way we design houses and other buildings.



What we imagine today will shape future technologies.



What's **nano** about paint?

Self-cleaning paint has nano-sized structures that keep walls clean and graffiti-free. When water falls on the surface, it beads up and rolls off, carrying dirt with it.



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What's **nano** about a toilet?

A super-smooth nano-coating keeps dirt and germs from sticking to some toilets. Imagine never having to scrub the toilet again!



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What's **nano** about a soap bubble?

Soap bubbles reflect light in special ways, because they're only a few hundred nanometers thick—the same size range as the wavelength of visible light. That's why bubbles have a rainbow of iridescent colors.



A nanometer is a billionth of a meter.



whatsnano.org

What's **nano** about fashion?

Nanotechnology can be used to make fabric stronger, brighter, and lighter. Imagine clothes that turn body movement into useable energy, so you can charge your phone or laptop as you walk!



What we imagine today will shape future technologies.



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What's **nano** about a sock?

Silver is naturally antimicrobial, and tiny nano-sized particles of silver are especially effective at killing germs. Nanosilver in socks can keep feet smelling fresh—but it could also leach out into your wash water, possibly harming the environment.



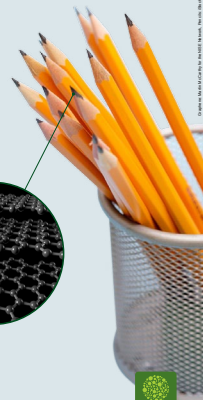
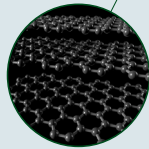
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What's **nano** about a pencil?

Graphene—the thinnest material in the world—was discovered by peeling apart graphite (pencil "lead") with scotch tape! This new nano-sized material could be used to make transparent displays and smaller, faster computer chips.



What we imagine today will shape future technologies.



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What's **nano** about a butterfly?

Blue Morpho butterfly wings look blue, but they're actually made of colorless nanostructures that reflect blue light to your eyes. New paints, fabrics, and low-energy electronic displays use the spacing of tiny nanostructures to create color.



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What's **nano** about a gecko?

Geckos can climb up walls and across ceilings, but there's no glue on the bottom of their feet! When a gecko climbs, millions of tiny nano-sized hairs on its foot bond with molecules in the surface of the wall.



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What's **nano** about a laptop?

Computer chips have tiny, nano-sized parts, so every time you use a computer, smartphone, or gaming console, you're using nanotechnology!



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What's **nano** about an elevator?

Nanotechnology could provide the strong, lightweight fibers needed to build an elevator to outer space. What if traveling to space really was as easy as taking an elevator?



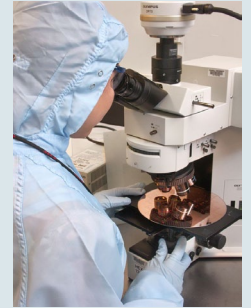
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What's **nano** about Ithaca?

At Cornell University, researchers are busy experimenting with everything from high-tech fabrics to nano-sized robots.



Nano research is happening all across the country.



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