Nano is all around us—in nature and technology.

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.

What’s nano about chocolate?

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Nano-sized things can behave in surprising ways.

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

What’s nano about food packaging?

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Nano-sized things are becoming part of our daily lives.

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.

What’s nano about water?

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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.

What’s nano about paint?

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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’s nano about a window?

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

What’s nano about a toilet?
A nanometer is a billionth of a meter.

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.

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’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.

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’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.

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.
Nanotechnologies are becoming part of our daily lives.

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!

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?

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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Nano-sized things can behave in surprising ways.

What we imagine today will shape future technologies.

Nanotechnologies are becoming part of our daily lives.