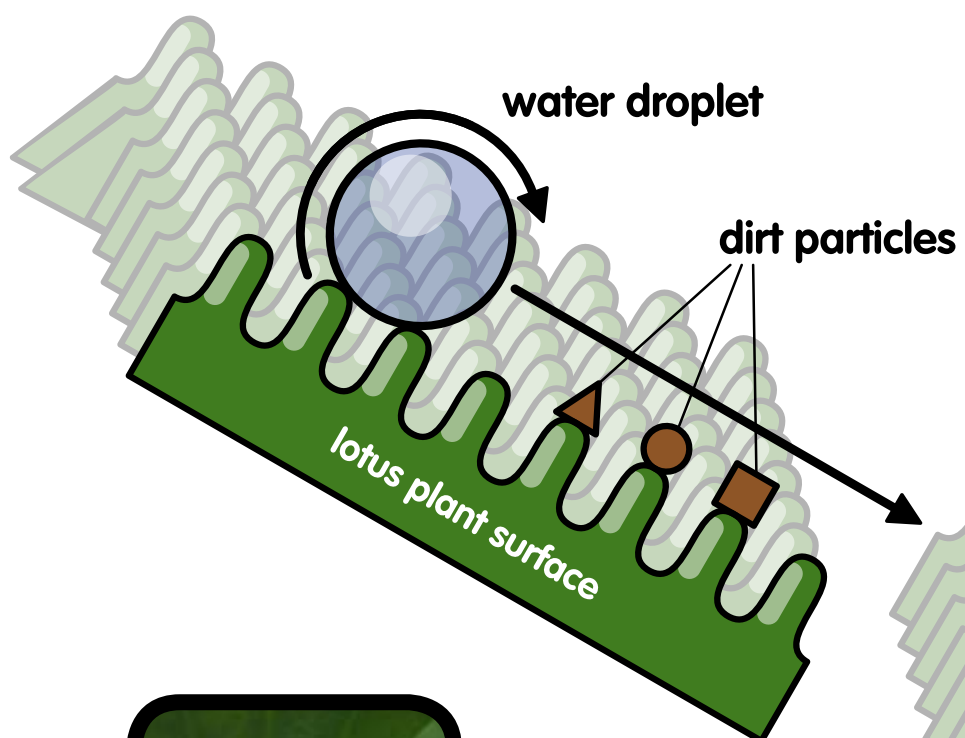
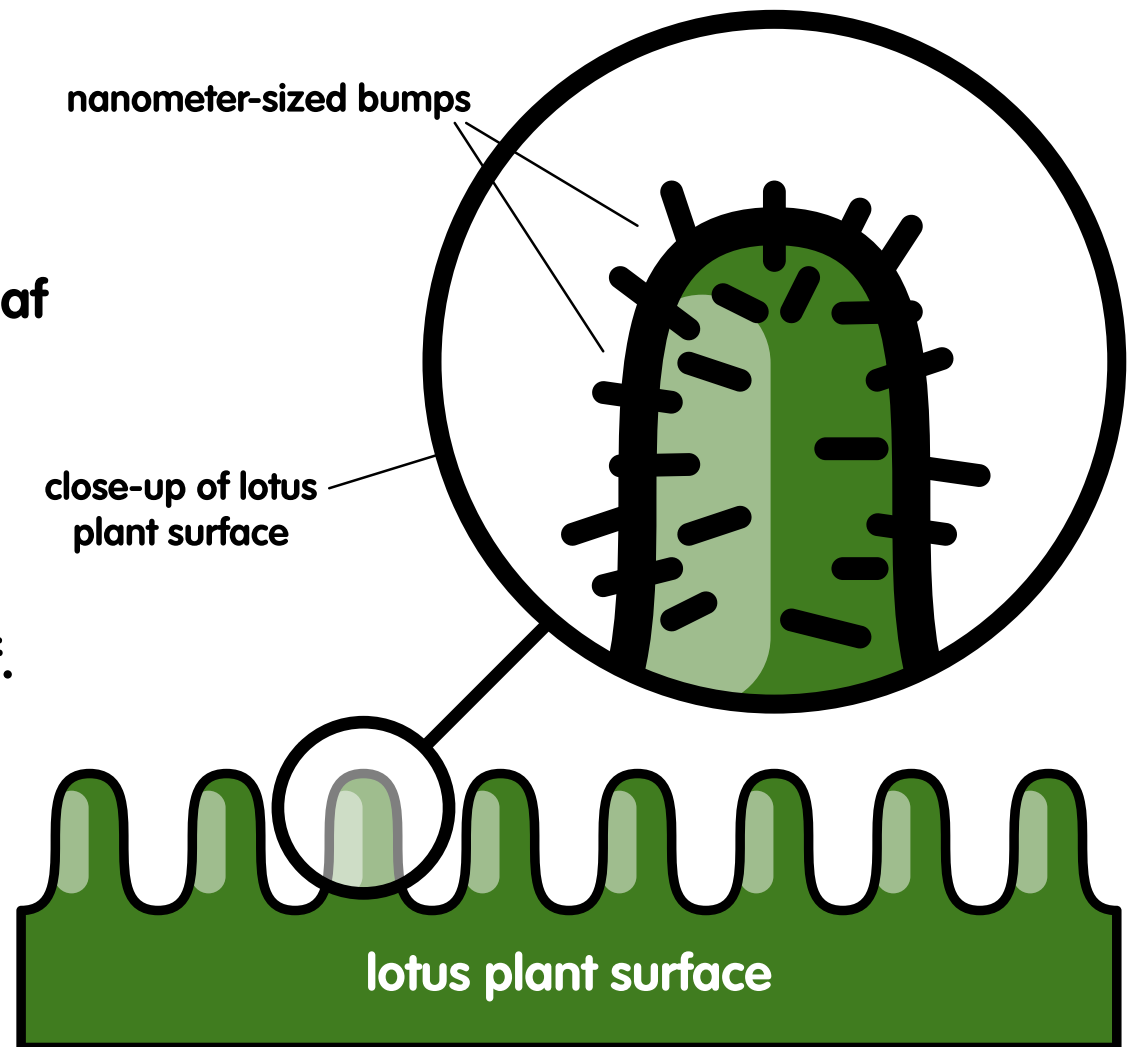


LOTUS EFFECT

Despite constant exposure to dust, dirt, rain and other elements, the leaves of the lotus plant remain clean and dry. Scientists have found that the secret of the lotus plant lies on the leaves' surface. Tiny bumps, one-billionth of a meter high, cover the leaf surface and prevent water and dirt from sticking. This keeps the leaves clean and dry even in the hardest rainfall.

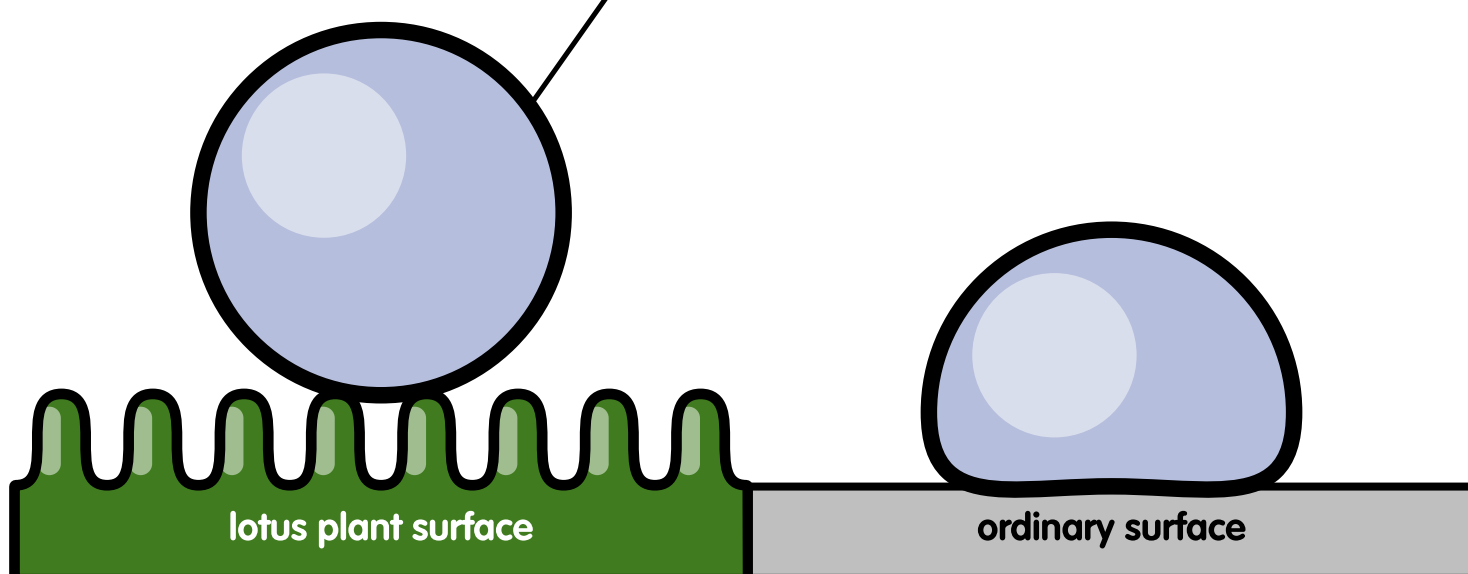
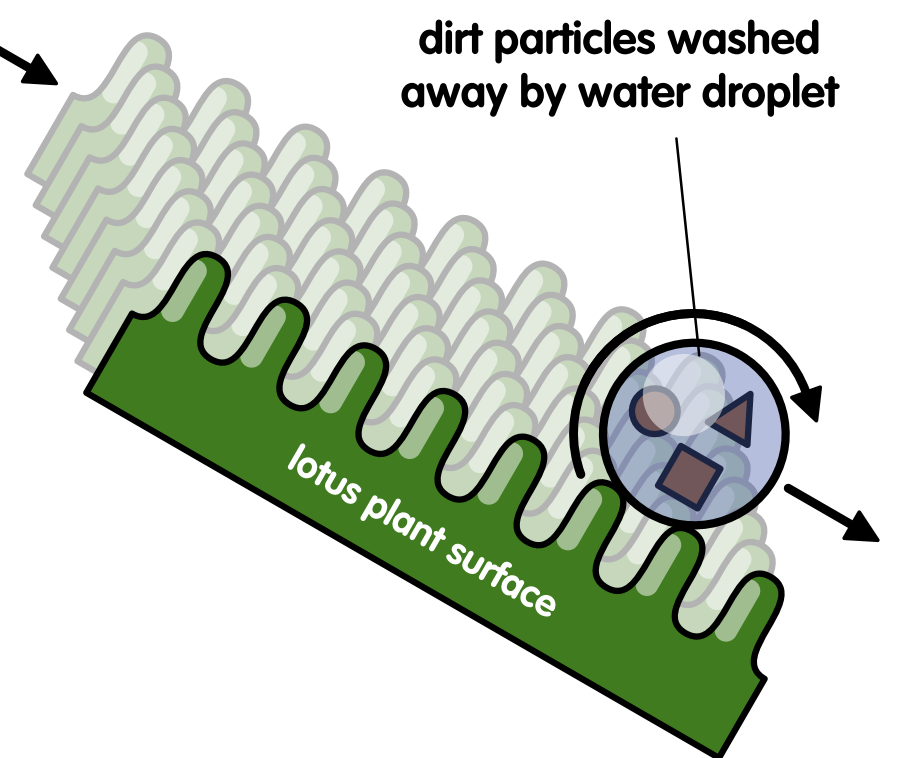
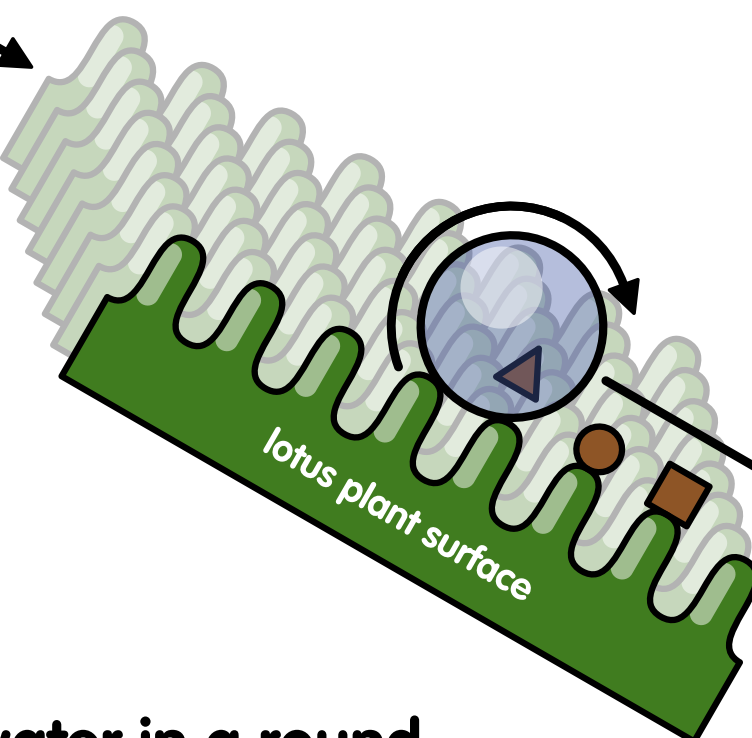
Scientists use nanotechnology to mimic this effect and make everyday surfaces self-cleaning and waterproof.



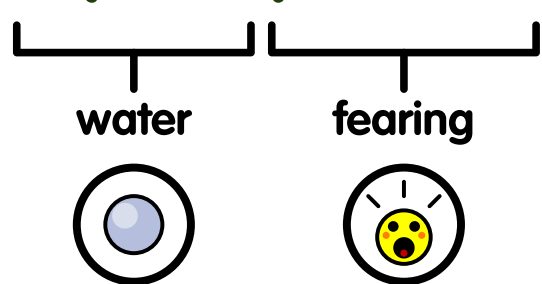
The surface of a lotus leaf is covered in tiny, tiny bumps. These bumps are actually so small that dirt particles and water drops cannot fit between them. Instead the bumps hold these particles in the air.



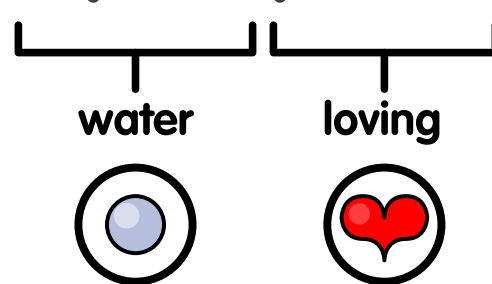
Surface tension holds the water in a round drop, keeping it off the leaf.



hydro phobic



hydro phillic



Computer-generated model of lotus leaf surface
Courtesy of William Thielicke

