



The original prototype, which Johnson still has, could shoot a compressed blast of water nearly 40 feet. Courtesy of Lonnie Johnson

“The Accidental Invention of the Super Soaker”

Adapted from: <https://www.smithsonianmag.com/innovation/accidental-invention-super-soaker-180972428/>

You might think it doesn't take a rocket scientist to invent a squirt gun like the Super Soaker. But Lonnie Johnson, the inventor who devised this hugely popular toy that can drench half the neighborhood with a single pull of the trigger, actually worked on the Galileo and Cassini satellite programs and at NASA's Jet Propulsion Laboratory, where he helped develop the B2 stealth bomber. In addition to serious-science inventions, Johnson has also patented such versatile and amusing concepts as a toy rocket launcher and Nerf Blasters.

“I'm a tinkerer,” Johnson says. “I love playing around with ideas and turning them into something useful or fun.”

Like many inventions, the Super Soaker was the result of an accident. Johnson was at home in 1982 working on an idea for an improved heat pump – a device for heating and cooling that mechanically transfers heat to another source – when his creation sprang a leak. A burst of

water shot across the room and Johnson immediately thought, “That would make a great squirt gun.” He worked on the concept and made a prototype from Plexiglas, PVC pipe, O-ring seats and other handy materials, including a two-liter soda bottle for the ample reservoir. Whatever parts he needed but couldn’t beg, borrow or steal, he made a small lathe in his workshop at home. “That’s one of the advantages of being an inventor and tinkerer,” he says. “I have everything I need to make what I need.”

The array of white PVC pipes and bulbous reservoir gave it a Star-Wars-ray-gun look. But as jury-rigged as it looked, the prototype could shoot: a compressed blast of water could carry up to nearly 40 feet. It took some tweaking and rebranding until the toy took off. It was relaunched as the Super Soaker with a clever and comical TV ad showing two young teens crashing a pool party while promising a “squirt gun of a higher caliber.” At a retail price of \$10 each, sales soared to \$200 million, catapulting it to the top-selling toy in the world in 1992. It has been one of the top-10 toys sold every year since then and has spawned numerous brand extensions for drenching friends and family.

1) Read the sentence from paragraph 2 (also listed below). What does Johnson mean by “tinkerer” in this sentence? [CCSS4]

“I’m a tinkerer,” Johnson says. “I love playing around with ideas and turning them into something useful or fun.”

- a. He likes to play musical instruments like the drums, flute, and harmonica.
- b. He is the fairy Tinkerbell from the movie Peter Pan.
- c. He is someone who experiments with many ideas to make them useful (or fun).
- d. He is someone who doesn't like to have fun or try new things.

2) What paragraph does the photograph best support for a reader's understanding? [CCSS5]

- a. Paragraph 3 and 4
- b. Paragraph 1
- c. Paragraph 3
- d. Paragraph 2 and 3