

World of Work: Inventors

First: **Whoosh** - by Chris Barton

[Non- Fiction text] [slides 2- 6]

- **read, talk about** and **make notes**

Then: **Interview With Lonnie Johnson**

<https://www.youtube.com/watch?v=-1zAO1WkG58>

- **watch** and **discuss** [watch video]

- **add to your notes** [slides 7]

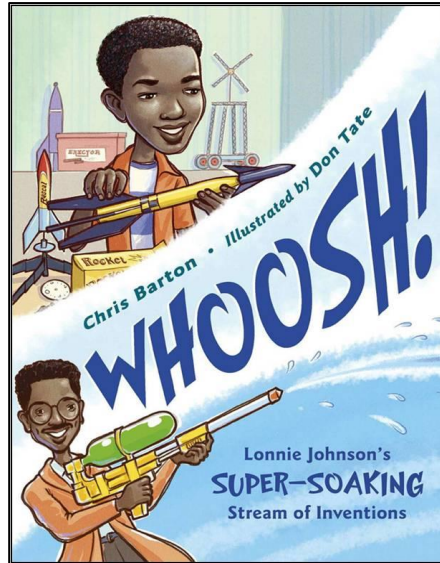
Finally: **Amazing Inventions**

- **My idea for a new invention** [slide 8-9]

- *Draw + label THEN write a sales pitch*

- **Write about an invention** someone else came up with that makes your life better.

Focus: Explain in detail [slide 10-11]



What are we learning this week?

Learning Focus: This week we are focusing on two different careers. We will be practising skills reading fiction + non-fiction texts.

First Career: Hairdressing

[see first powerpoint *W9 WoW Hairdressers...*]

Next Career: Inventor

Text 3: Non-fiction - *Whoosh!*

Video interview with Lonnie Johnson

[a range of S&L, Reading and Writing tasks]

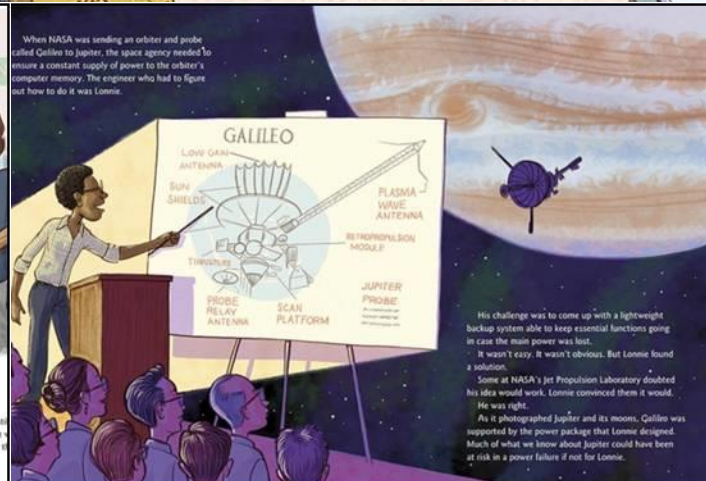
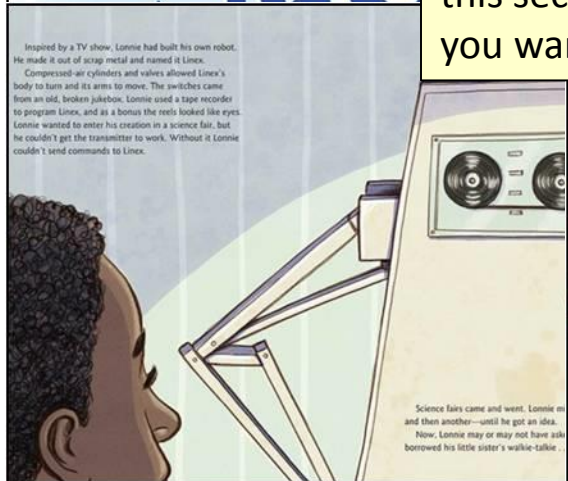
Finally: Creative Thinking Inventors/Inventions

Focus: Explaining an idea in detail

'Whoosh! Lonnie Johnson Story' by Chris Barton Listen to/ read then talk about this non-fiction text. Focus: What do you find out about Lonnie Johnson? How did he become successful?



Miss Barratt has recorded this section of the story if you want to read along.



Non-fiction = writing that gives facts and information **Fiction** = writing from imagination

Setting Context: [Non-Fiction Text]

Lonnie Johnson is a real person. He was born on 6th October 1949 in Alabama, U.S.A. Growing up he was one of 6 children. He would have loved a workshop of his own to work on all the fantastic ideas he kept thinking of however the house was small and there just wasn't room.



Lonnie loved making things. He would collect spare bolts, screws, spare parts and anything he could haul back from the junkyard. He learned how to make rockets from scratch – he even learnt how to make rocket fuel – nearly setting light to his kitchen! Lonnie wanted to spend his life designing things, building things and getting them to work. He wanted to be an engineer.

At school Lonnie took a test that told him he would not make a good engineer but he didn't give up. He kept working, even managing to build his own robot out of scrap metal. He wanted to show everyone what he was capable of but he couldn't afford the final vital part it needed - a transmitter. One day he had a brilliant idea, he would borrow his sister's walkie-talkie ... *he didn't quite get around to asking first.* Linex the robot was finally finished and Lonnie was able to enter a science fair with his school. This was a very BIG deal, schools across the state entered and competed to win. Lonnie knew that as an African American 5 years ago he wouldn't even have been allowed to enter so he really felt the pressure to succeed. Due to his amazing work his school won first prize!

Lonnie continued to study hard, learning all that he could. He eventually got a job working for NASA. They needed an engineer who could work out how to make sure there was a constant supply of power to the orbiter *Galileo's* computer memory on its long 365million mile journey to Jupiter.

He also came up with lots of other very cool inventions, read on to find out more!

engineer = a person who designs, builds, or maintains engines, machines, or structures eg. buildings, bridges
orbiter = a spacecraft designed to go into space, to travel around planets but not land. Used to collect information

Ideas for other problems to solve just kept on flowing. They flowed whether Lonnie was working with hundreds of people at NASA or up late tinkering with his own inventions in – finally! – his own workshop.



Lonnie knew the world's millions of refrigerators and air conditioners needed a new cooling system - one that didn't use R-12, a chemical that was bad for the environment. He had an idea for using water and air pressure instead. To test his idea, he made a pump and nozzle ... connected them to the bathroom tap ... turned on the tap, turned on the pump, and then ...

Whoosh! The stream that blasted across the bathroom was so powerful, it created a curtain-swirling breeze. It also gave Lonnie an idea for yet another invention.



“This,” he thought, “would make a great water gun.”

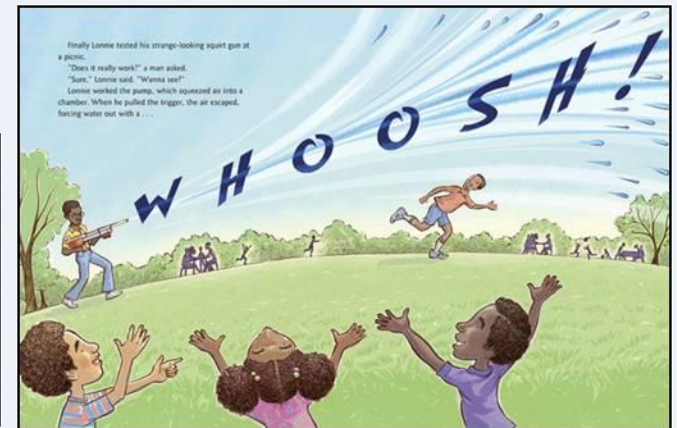
First he had to find or make the parts, including a pump small enough for a child to handle. Then he had to glue the parts together into a prototype – an early version with room for improvement.

Finally Lonnie tested his strange-looking squirt gun at a picnic.

“Does it really work?” a man asked.

“Sure,” Lonnie said. “Wanna see?”

Lonnie worked the pump, which squeezed the air into a chamber. When he pulled the trigger, the air escaped forcing water out with a ...



For a water battle to be a fair fight, there couldn't be just one of Lonnie's water guns. He needed help making more.

So, he went to toy company ...
after toy company
after toy company...

The word "no" was said again and again.
But finally, one company said, "Yes!"



Lonnie gave up his day job and devoted himself to full-time inventing. He had so many great ideas but sadly each one of his plans fell through, including his new water gun.

Times were hard for the family and Lonnie felt angry and scared. But he had dealt with challenges all his life, he knew a lot about solving problems. And he still believed in his inventions, especially his water gun. Lonnie went looking for another toy company.



Eventually he found a toy maker who was interested in seeing the gun if Lonnie ever happened to be in Philadelphia.

"But don't make a special trip," the company said.

Lonnie made a special trip.

In his wife's suitcase, he carried a new prototype.

He unpacked it, filled the tank with water, pumped the gun until the air pressure was good and high, and ...





Kids everywhere agreed with that “Wow!” Lonnie’s water gun, called the Super Soaker, became a smash hit. In no time there were Super Soakers in gardens and beaches, in parks and on playgrounds. Each sale of a Super soaker put a little money into Lonnie’s pocket.

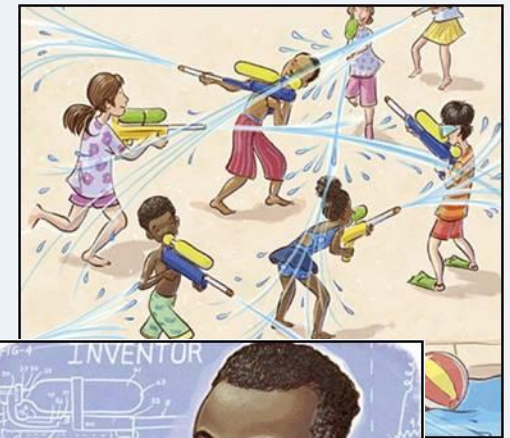
All those hours – all those years – that Lonnie spent in his workshop had paid off big-time. Now he could afford to do just about anything he wanted.

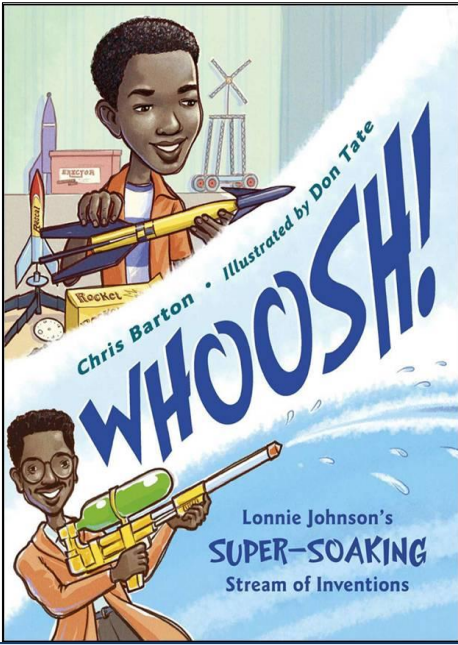
So what did Lonnie do?

He got a bigger workshop, which is where you’ll find him today. Because facing challenges, solving problems, and building things are what Lonnie Johnson loves to do. And his ideas just keep on flowing.

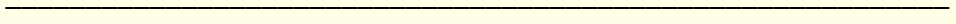
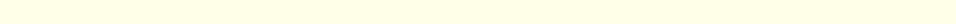
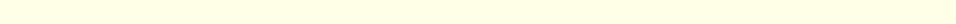
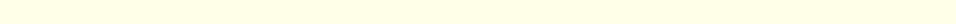
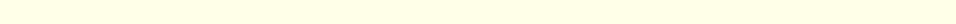
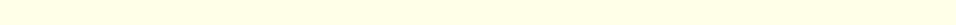
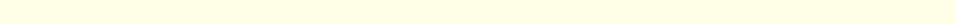
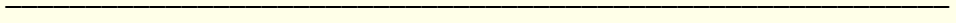
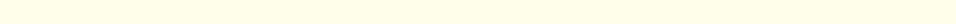
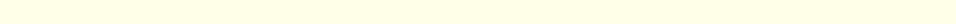
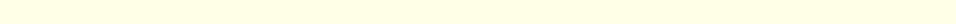
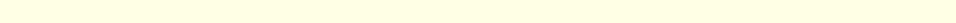
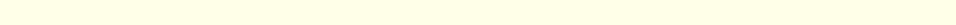
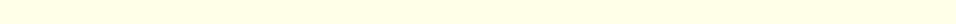
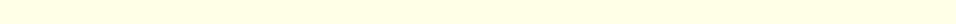
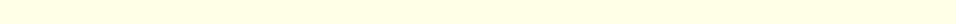
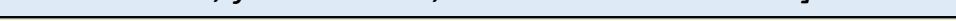
Watch this video clip to hear Lonnie tell you his story himself.

<https://www.youtube.com/watch?v=-1zAO1WkG58>

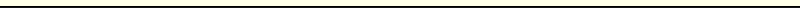
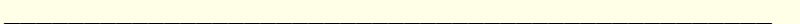
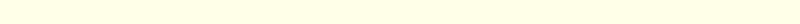
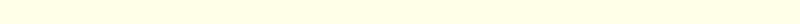
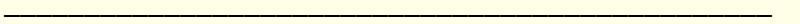
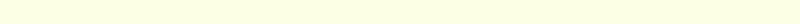
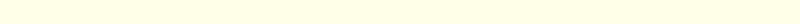
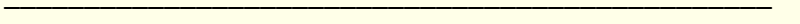
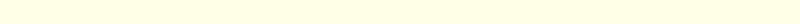
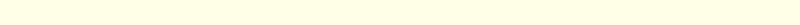
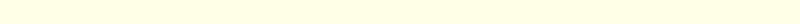
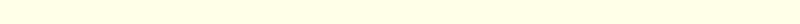
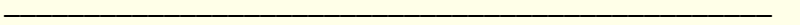
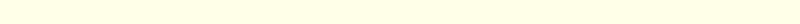
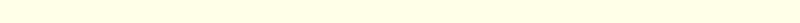
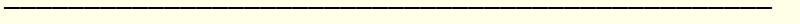
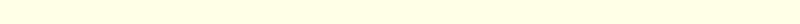
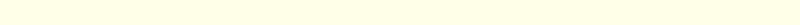
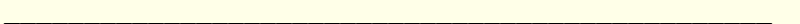
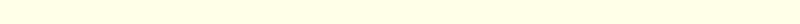
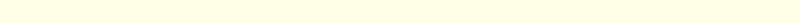
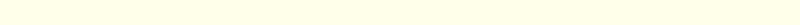
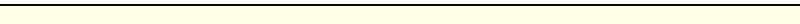




List things you found out about Lonnie [eg where he was born, jobs he had, inventions he made.]



List the personal qualities that have helped him succeed:



Draw out and label an idea you have for an invention.



Tim Berners-Lee
inventor of the **world wide web**



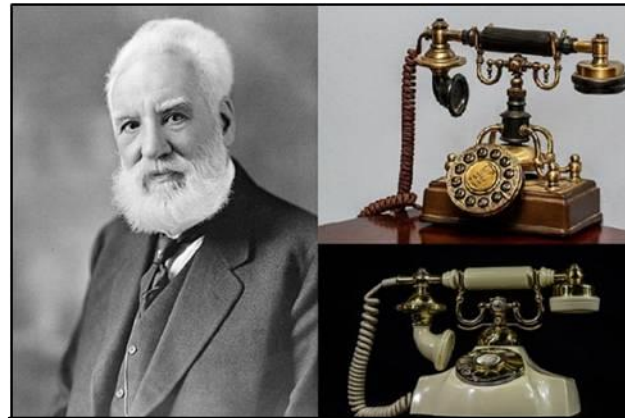
Karl Benz inventor of the
automobile - car



Thomas Edison inventor
of the **electric light bulb**



Wilbur + Orville Wright
inventors of the **airplane**



Alexander Graham Bell
inventor of the **telephone**



Johannes Gutenberg
inventor of the
printing press – led
to massive leaps in
education + science



Stephanie Kwolek inventor of the
kevlar - a super strong material
used in protective vests and in
boats, airplanes, ropes, cables...

There are so many more!