

Meet the author- Tracy Nelson Maurer

A dirt road climbs the long hill to the home were Tracy Nelson Maurer grew up outside of Superior, Wisconsin. Lake Superior looks like a thin blue line in the distance from the hilltop. Tall evergreens and clustered poplar trees guard the driveway. She spent hours playing in the woods there. Living in the country helped forge her lifelong love for quiet places, books, gardens, and writing.

Tracy has researched and written more than 100 informational books, ranging from pre-kindergarten A-B-C books to middle/upper-grade hi-low titles on crafts, sports cars, extreme sports, cheerleading, and other fun topics. Her picture-book biography *John Deere, That's Who!* (Henry Holt, 2017) was named a Junior Library Guild Selection and received the first Frances and Kermit Rudolf Nonfiction Scholarship Award from Hamline University. Another nonfiction title, *Noah Webster's Fighting Words* (Millbrook Press, an imprint of Lerner Publishing, 2017) received the Nonfiction Work-in-Progress Grant from the Society of Children's Book Writers and Illustrators. Her picture book *Storm Codes* won the Northeastern Minnesota Book Award Children's Literature Honor in addition to other recognition. Her nonfiction books for schools and libraries have received favorable reviews from Booklist, ALA and VOYA; some served as examples in Models for *Teaching Writing-Craft Target Skills* by writing expert Marcia S. Freeman (Maupin House, 2005).

Tracy with the award presenters at the Northeastern MN Book Award Honor for Children's Literature for *Storm Codes*. A professional writer for more than 25 years, Tracy also develops, writes, and edits for business publications and websites, as well as marketing and advertising materials. She has led workshops and writing groups, and served as the writing mentor for the Minnesota chapter of SCBWI. Tracy has appeared on the Minneapolis KARE-11's morning talk show and the PBS-affiliated "Venture North" program. She's also been a guest presenter at special events, workshops, schools, and libraries throughout Minnesota and as far as Nebraska, Colorado, and California. Tracy holds an MFA in Writing for Children and Young Adults from Hamline University and lives near Minneapolis, Minnesota with her family.

Contact Tracy Nelson Maurer for more information about school and library visits. http://www.tracymaurerwriter.com/



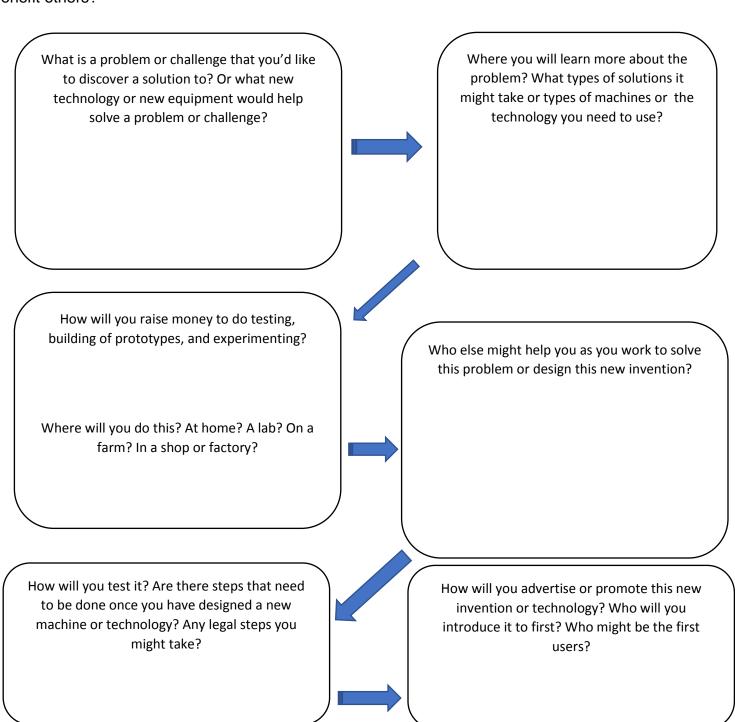
How did he do it?

What did he observe?	
What questions did he ask?	
What predictions did he make?	
What plan did he develop?	
How did he record or use the results?	
How did he draw a conclusion or finalize his endproduct?	



Are you the next John Deere?

Wouldn't it be fun and exciting to be an inventor or discover something that make a difference for many? Fill out this chart to help you discover how you might invent or discover something that will benefit others?





Inventor's Challenges

Inventors identify problems or challenges and then work to find solutions to those problems. In the process, they may have to deal with a variety of challenges. As you think about John Deere's story, fill in this chart with a 2-3 sentence answer to the question.

What problems did John Deere identify?	What trial & error solutions did John Deere attempt to fix these problems?	What sacrifices did John Deere have to make?
Name 3 places that John Deere lived in?	Identify three terms that related to farm equipment and define them:	What were some of the things the farmers were struggling with?



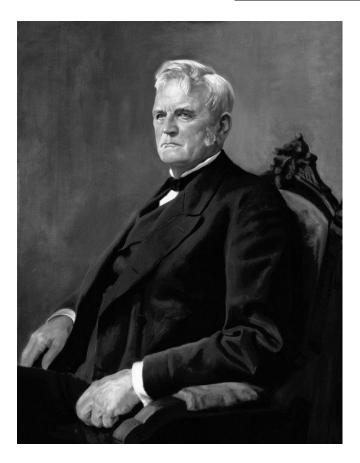
Multiple Choice Questions

Circle the correct answer- there might be more than one correct answer for each question.

- 1. John Deere used ironworking tools. Circle the examples of ironworking tools below.
 - a) Forge
 - b) Hammers
 - c) Twine string
 - d) Chisel
- 2. John Deere moved to this Illinois town when he relocated from out east.
 - a) Chicago
 - b) Springfield
 - c) Grand Detour
 - d) Moline
- 3. The Mississippi River was important to John Deere for which two reasons?
 - a) He liked to fish
 - b) He utilized water power for energy for his factory
 - c) He used to be a riverboat captain
 - d) Ships on the Mississippi brought deliveries to him
- 4. America's breadbasket means:
 - a) The different types of bread made in the Midwest
 - b) The types of containers a baker uses
 - c) The wheat that is grown to make bread
 - d) The area known as the "prairie fields of grain"
- 5. Circle any of the causes of problems that John Deere was trying to correct
 - a) Iron blades that were damaged by twisted roots
 - b) Gumbo sticking to the plow
 - c) Broken plows
 - d) The high price of grain
- 6. Why did some farmers prefer wooden plows over steel plows?
 - a) There were more trees around than steel factories
 - b) Less expensive
 - c) They thought steel would poison the soil
 - d) They had tools that could fix wood when it broke
- 7. Forge means:
 - a) A mountain
 - b) The workplace of a blacksmith
 - c) Fireplace
 - d) Where a blacksmith heats the metal



The Story of John Deere Source: John Deere website- www.JohnDeere.com



John Deere Founder and President 1837-1886

The story of John Deere, who developed the first commercially successful, self-scouring steel plow, closely parallels the settlement and development of the midwestern United States.

Deere was born in Rutland, Vermont, on February 7, 1804, the third son of William Rinold Deere and Sarah Yates Deere. In 1805, the family moved to Middlebury, Vermont, where William engaged in merchant tailoring. In 1808, he boarded a boat for England, in the hopes of claiming an inheritance



and making a more comfortable life for his family. He was never heard from again, and is presumed to have died at sea.

Raised by a mother on a meager income, John Deere's education was probably rudimentary and limited to the common schools of Vermont. At the age of 17, he apprenticed himself and learned the trade of blacksmithing, which he carried on at various places in Vermont.

In 1836, facing depressed business conditions in Vermont and with a young family to care for, Deere traveled alone to Grand Detour, Illinois, to make a fresh start. Resourceful and hard working, his skills as a blacksmith were immediately in demand.

The new pioneer farmers struggled to turn heavy, sticky prairie soil with cast iron plows designed for the light, sandy soil of New England. John Deere was convinced that a plow that was highly polished and properly shaped could scour itself as it cut furrows. In 1837, he created such a plow, using a broken saw blade.

By 1841, Deere was producing 100 of the plows annually. In 1843, he entered a partnership with Leonard Andrus to produce more plows to meet increasing demand.

By 1848, Deere dissolved his partnership with Andrus and moved the business to Moline, Illinois, which offered advantages of water power, coal and cheaper transportation than to be found in Grand Detour. In 1850, approximately 1600 plows were made, and the company was soon producing other tools to complement its steel plow.

In 1858, Deere transferred leadership of the company to his son, Charles, who served as its vice president. John Deere retained the title of president of the company, but now turned his attention to civic and political activities.

John Deere was active in public life throughout his career in Moline. Among other roles, he was a founder and president of the National Bank of Moline, was an active member of the First Congregational Church, and served as the city's mayor for two years.

John Deere died on May 17, 1886, at his home in Moline.

Deere & Company (NYSE: DE) is a world leader in providing advanced products and services and is committed to the success of customers whose work is linked to the land – those who cultivate, harvest, transform, enrich, and build upon the land to meet the world's dramatically increasing need for food, fuel, shelter, and infrastructure. Since 1837, John Deere has delivered innovative products of superior quality, built on a tradition of integrity.

For more information, visit John Deere at its worldwide website at www.JohnDeere.com.



Lessons from the National Ag in the Classroom Curriculum Matrix

Six Kinds Do It All

The purpose of this lesson is for students to become familiar with the six kinds of simple machines—the inclined plane, pulley, screw, wedge, lever, and wheel and axle. These machines are combined to form complex machines.

https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=337&search_term_lp=six%20kinds%20do%20it%20all

Machines and People

The purpose of this activity is for students to define the word "machine" and understand how machines are used in agriculture to produce food and fiber. They will observe a variety of machines and compare and contrast them.

https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=135&author_state=0&search_term_lp=mach_ines%20and%20people

Machines in Agriculture

The purpose of this activity is for students to make connections between the six types of simple machines and the complex machinery used to produce food and fiber.

https://www.agclassroom.org/teacher/matrix/lessonplan.cfm?lpid=342&author_state=0&search_term_lp=mach_ines%20in%20agriculture



Standards for lessons and activities

Activity	Wisconsin Common Career Technical Standards	Next Generation Science Standards	Agriculture, Food and Natural Resource Standards	Common Core English Language Arts
How did he do it?	4C1.a.1.e 4C1.b.3.e 4C2.a.2.e EHS1.b.1.e IMT3.a.3.e	3-5-ETS1-1 3-5-ETS1-2	ABS6.1.2.e ABS6.c.1.e PST1.g.1.e PST1.d.1.e PST1.l.1.e PST1.m.1.e	CCSS.ELA- LITERACY.RF.4.4 CCSS.ELA- LITERACY.RF5.4 CCSS.ELA- LITERACY.R1.5.2 CCSS.ELA- LITERACY.R1.5.4 CCSS.ELA- LITERACY.R1.5.7 CCSS.ELA- LITERACY.R1.5.8 CCSS.ELA- LITERACY.R1.5.10 CCSS.ELA- LITERACY.R1.4.1 CCSS.ELA- LITERACY.RI.4.2 CCSS.ELA- LITERACY.RI.4.4 CCSS.ELA- LITERACY.RI.4.9 CCSS.ELA- LITERACY.RI.4.10 CCSS.ELA- LITERACY.RI.4.10 CCSS.ELA- LITERACY.SL.5.1.A CCSS.ELA- LITERACY.SL.5.1.A CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.A CCSS.ELA- LITERACY.SL.5.1.A CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.D CCSS.ELA- LITERACY.SL.5.1.A CCSS.ELA- LITERACY.SL.5.1.A



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		3-5-ETS1-2	ABS6.a.2.e	
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Multiple Choice	4C1.a.1.e	3-5-ETS1-2	ABS6.a.1.e	CCSS.ELA-
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Machines in Agriculture-Lesson from National Ag in the Classroom

Common Core Connections

Reading: Anchor Standards

- CCSS.ELA-LITERACY.CCRA.R.2
- CCSS.ELA-LITERACY.CCRA.R.4
- CCSS.ELA-LITERACY.CCRA.R.5

Speaking and Listening: Anchor Standards

CCSS.ELA-LITERACY.CCRA.SL.1
 Language: Anchor Standards
 CCSS.ELA-LITERACY.CCRA.L.4

Education Content Standards

Within HISTORY

World History Era 7 Standard 5A: Connections between major developments in science and technology and the growth of industrial economy and society.

Agricultural Literacy Outcomes

Culture, Society, Economy & Geography

Explain how agricultural events and inventions affect how Americans live today (e.g., Eli Whitney - cotton gin;
 Cyrus McCormick - reaper; Virtanen - silo; Pasteur - pasteurization; John Deere - moldboard plow) (T5.3-5.c)

Science, Technology, Engineering & Math

 Describe how technology helps farmers/ranchers increase their outputs (crop and livestock yields) with fewer inputs (less water, fertilizer, and land) while using the same amount of space (T4.3-5.b)

Machines and People-Lesson from National Ag in the Classroom

Common Core Connections

Speaking and Listening: Anchor Standards

- CCSS.ELA-LITERACY.CCRA.SL.1
- CCSS.ELA-LITERACY.CCRA.SL.2

Education Content Standards

Within SCIENCE



3-5-ETS1: Engineering Design

• 3-5-ETS1-1

■ 3-5-ETS1-2

Agricultural Literacy Outcomes

Science, Technology, Engineering & Math

 Compare simple tools to complex modern machines used in agricultural systems to improve efficiency and reduce labor (T4.3-5.a)

Six Kinds Do It All-Lesson from National Ag in the Classroom

Common Core Connections

Speaking and Listening: Anchor Standards

CCSS.ELA-LITERACY.CCRA.SL.1Writing: Anchor Standards

CCSS.ELA-LITERACY.CCRA.W.1

Mathematics: Practice Standards

CCSS.MATH.PRACTICE.MP2

Education Content Standards

Within HISTORY

World History Era 7 Standard 5A: Connections between major developments in science and technology and the growth of industrial economy and society.

Objective 3

Agricultural Literacy Outcomes

Science, Technology, Engineering & Math

- Compare simple tools to complex modern machines used in agricultural systems to improve efficiency and reduce labor (T4.3-5.a)
- Describe how technology helps farmers/ranchers increase their outputs (crop and livestock yields) with fewer inputs (less water, fertilizer, and land) while using the same amount of space (T4.3-5.b)