



The Mini Page

Issue 02, 2018

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Next Week:
Welcome to Pyeongchang, South Korea!

What Will You Invent?



Mini Fact:

Bill Bowerman needed a grippier shoe for running. So he made the first Nike shoe sole using the waffle iron in his kitchen.

Through all of the activity and excitement of the holidays, did your brain wander around to a great idea for a new product or service? You could be a kid inventor!

Kid Inventors' Day (KID) is on Jan. 17 — the birthday of Benjamin Franklin, a great inventor and statesman who was born 311 years ago. Among other things, Franklin invented the lightning rod and bifocal glasses.



Benjamin Franklin

This week, The Mini Page learns all about kid inventors.

Protecting an idea

Franklin never patented, or legally protected, his inventions. He thought people should freely share their ideas.

But most people apply for a patent when they invent something. A patent means that no one else may make or sell the same invention. With a patent, the inventor gets all the credit for his or her idea, and all the money from selling it. The U.S. Patent and Trademark Office has issued about 8 million patents since the first one in 1790!

Why be an inventor?

Experts say that thinking through the process of inventing something can help kids:

- be more creative
- learn problem-solving
- learn to take educated risks

- learn to communicate better
- learn to **collaborate**, or work with others
- learn about **entrepreneurship**, or running a business.

Inventing is a way for kids to change and shape the way the world works for them personally, as well as globally.

Getting ideas

Children might wonder about how to get an idea for an invention. Experts say a good place to start is reading about what inspired other inventors. Then think about a challenge in your own life.



photo courtesy NIH

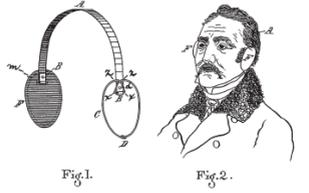
For example, imagine your shoelace has broken right before it's time to leave for school, and you don't have any extras at home. How would you solve this problem? (Write down your ideas and share them with classmates.)

Inspiration all around

Experts also suggest looking at nature for ideas to solve problems. For example, a research institute in Germany looked at sharkskin and the way tiny scale-like ridges reduce drag in the water as the shark swims. Researchers developed a paint that mimics, or copies, the ridges in sharkskin to increase energy efficiency for airplanes and ships. This way of looking at invention is called **biomimicry** (bye-oh-MIM-ick-ree).

Meet some kid inventors

• Chester Greenwood of Farmington, Maine, had a problem. His ears got really cold when he went ice-skating. So Chester, just 14 years old, invented earmuffs: a springy band that fit over the head, with beaver fur and velvet "muffs" to shield the ears from cold temperatures. Four years later, in 1877, Chester received a patent for his "ear protectors."



• Philo T. Farnsworth came up with the idea of an "image dissector," or video camera tube, in 1921, when he was just 14. He got the idea of splitting an image into lines from plowing fields at his family's farm in Utah.



© Dr. Philo T. Farnsworth

He showed a working model in 1927 and received a patent for his television in 1930. When RCA tried to strike down Farnsworth's patent, his high school chemistry teacher showed a sketch Farnsworth had made in 1922, proving that he was the first inventor of television.

Resources



On the Web:

- bit.ly/MPpatents

At the library:

- "Rosie Revere, Engineer" and "Ada Twist, Scientist" by Andrea Beaty
- "Brainstorm! The Stories of Twenty American Kid Inventors" by Tom Tucker

Try 'n' Find

Words that remind us of kid inventors are hidden in this puzzle. Some words are hidden backward, and some letters are used twice. See if you can find:



BIOMIMICRY,
COLLABORATE,
COMMUNICATE,
CREATIVE, CREDIT,
FRANKLIN, IDEA,
INSPIRATION, INVENTOR,
MODEL, OFFICE, PATENT,
PROBLEM, PRODUCT,
SERVICE, SOLVE,
TRADEMARK.

Z T C U D O R P O C R E D I T
M E L B O R P A T E N T I R U
S C N G E T A R O B A L L O C
N I L K N A R F H B K W T T Y
H F M E V I T A E R C G Y N L
Y F K B I O M I M I C R Y E E
A O I N S P I R A T I O N V D
F E T A C I N U M M O C E N O
S O L V E S E R V I C E T I M
T R A D E M A R K I D E A D D

Cook's Corner

Spaghetti Squash With Pesto

You'll need:

- 1 spaghetti squash, about 2 pounds, halved lengthwise
- 2 tablespoons pine nuts
- 1 (14-ounce) can diced fire-roasted tomatoes, drained

- 1/2 cup prepared basil pesto
- salt and black pepper
- 2 tablespoons grated Parmesan cheese



What to do:

1. Place squash cut side down in microwave-safe baking dish. Add about 1 inch water to dish. Cover with paper towel and cook on HIGH for 5 to 7 minutes until flesh is tender.
2. Place pine nuts in a small dry skillet over medium heat. Cook for 3 minutes, shaking frequently, until nuts are golden brown.
3. Scoop flesh from squash and transfer to large bowl. Add tomatoes and pesto and mix well. Season with salt and pepper. Arrange on platter and top with Parmesan cheese and pine nuts. Serves 4.

Adapted from "The Robin Takes 5 Cookbook for Busy Families" with permission from Andrews McMeel Publishing (andrewsmcmeel.com).

* You'll need an adult's help with this recipe.

7 Little Words for Kids

Use the letters in the boxes to make a word with the same meaning as the clue. The numbers in parentheses represent the number of letters in the solution. Each letter combination can be used only once, but all letter combinations will be necessary to complete the puzzle.



1. it makes bread dough rise (5) _____
2. firecracker sound (4) _____
3. dried grape (6) _____
4. large sea creature (5) _____
5. people watching a show (8) _____
6. first meal of the day (9) _____
7. shake in the cold (6) _____

ENCE	SHIV	YEA	NG
RAIS	ST	DI	WH
AU	EAK	ALE	BR
BA	IN	FAST	ER

Answers: yeast, bang, raisin, whale, audience, breakfast, shiver.

Mini Jokes



Fred: What runs faster, cold or hot?

Fiona: Hot, because you can catch a cold!

Eco Note



Humans are responsible for almost all pollution on land and in rivers, lakes and oceans. New, biological ways of tackling pollution are being developed. For example, algae, lichens and bacteria can be used to break down spilled oil, and can even make radioactive waste less harmful.

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Thank You



The Mini Page thanks Alaina Rutledge, director of education for the National Inventors Hall of Fame, for help with this issue.

Teachers: For standards-based activities to accompany this feature, visit: bit.ly/MPstandards. And follow The Mini Page on Facebook!



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