BEST INVENTIONS OF 2022
This year’s roundup highlights 10 innovations that are changing how we live, work, learn, and play.
LEXILE: 900L (720L alternate reading level)
SOCIAL STUDIES (NCSS) STANDARD: Science, Technology, and Society
COMMON CORE (CCSS) STANDARDS: RI.6-8.3, RI.6-8.5, SL.6-8.1, W.6-8.2

ENGAGE THE READER
Have students scroll through the article and choose an invention that catches their eye. Have them read the entry, then ask: What is an invention, and what makes it different from technologies we already have? What is the purpose of an invention? How do you think new inventions come about? Encourage students to describe inventions both in general terms and in reference to the particular invention they just read about.

QUESTIONS FOR CLOSE READING AND DISCUSSION
- Which of the year’s best inventions do you find most surprising, and why? What problem does the invention solve?
- Focus on one of the inventions. In what way is it similar to an existing technology? How does it improve on existing technologies? Was this a necessary improvement? Why or why not?
- Which of the 2022 best inventions do you think is the most important, and why? How might inventors develop the technology further, and why?

EXTEND LEARNING
Encourage students’ inventiveness. In small groups, have them select one of the year’s best inventions. Tell them they will either 1) come up with a design plan to improve on the invention, or 2) design a totally new technology based on the principles of their chosen invention. (For example, students might improve on the BLK2FLY scanner by making it capable of performing other problem-solving tasks, beyond just capturing images; or they might develop the idea behind the Esper Hand with a technology that extends our physical capabilities in other ways.) Have the groups brainstorm and create a diagram of their invention. Tell them that this step is for developing their ideas and working out problems that might arise from their technology’s application. Each group should produce 1) a written proposal for its invention, explaining why the technology is needed and how the invention works, and 2) a diagram that shows the invention’s key parts.

COVER STORY QUIZ + ANSWER KEY
The cover quiz can be found on page 3 of this guide.
For the Google Forms quiz, click here.
6. C (RI.3)  7. Answers will vary. (W.8)
POPULATION RISE
The world population reached 8 billion in November, according to the United Nations.

LEXILE: 1070L (900L alternate reading level)
SOCIAL STUDIES (NCSS) STANDARD: Global Connections
COMMON CORE (CCSS) STANDARDS: RI.6-8.1, RI.6-8.4, RI.6-8.5, RI.6-8.6

BEFORE READING
Direct students’ attention to the article’s headline, “Population Rise,” as well as to the photograph and caption. Ask: Why is the world population newsworthy? What are some possible causes of a rise in the world’s population over time? What problems might a rising population create? Explain. (Students might point to more crowded living conditions, a strain on resources, and environmental effects.) As students read the article, have them note details that support or challenge their initial ideas.

DISCUSSION QUESTIONS
● Which parts of the world will bear the most challenges from population growth? Explain why.
● Charles Kenny, of the Center for Global Development, says, “The way we consume is the problem.” What does he mean? How might this problem be addressed?
● What other information about population growth would you like to have seen in this article, and why?

LAB-GROWN CHICKEN
The U.S. Food and Drug Administration has declared a lab-grown chicken product safe to eat.

SOCIAL STUDIES (NCSS) STANDARD: Science, Technology, and Society
COMMON CORE (CCSS) STANDARDS: RI.6-8.1, RI.6-8.3, RI.6-8.4, RI.6-8.8

BEFORE READING
Ask students: Would you eat meat grown in a lab? Explain? What might be the benefits of lab-grown meat? Do you think lab-grown meat should be sold in stores? Why or why not?

DISCUSSION QUESTIONS
● Describe how meat is made in a lab. How is it different from conventionally grown meat? How is it similar?
● Uma Valeti, of Upside Foods, says, “Can you imagine a slaughterhouse allowing a tour like this? Would you even want to see that?” Why does he say this? What is his point about lab-grown chicken? Do you agree? Explain.

CLOSING ACTIVITY
Read this line from the article: “But the U.S. market, with the highest per-capita consumption of meat in the world, is the ultimate goal for most [lab-grown meat] companies.” Ask: Why do you think Americans eat so much meat? Do you think most Americans would switch to lab-grown alternatives? Why or why not? Why do you think companies such as Upside Foods and Mosa Meat think it is worth putting their products on the U.S. market?
Use this week’s cover story, “Best Inventions of 2022,” to answer the questions below. For questions 1–6, circle the letter next to the best answer. If you need more space to write your response to question 7, you may use the back of this page.

1. This article can be best described as a
   A. profile.
   B. breaking-news story.
   C. play-by-play account.
   D. year-end roundup.

2. What problem does the Polly braille reader try to solve?
   A. Visually impaired students don’t have enough braille books in school.
   B. Visually impaired students need feedback on their progress while reading braille at home.
   C. Reading braille always requires audio assistance.
   D. Reading braille cannot be done on digital devices.

3. How does the BLK2FLY scanner navigate around obstacles?
   A. Its route is programmed before it takes off.
   B. It is controlled remotely by a drone pilot.
   C. It uses radar and other technology to create three-dimensional images that act like maps.
   D. Artificial intelligence allows it to anticipate which objects will block its flight path.

4. In the entry on Hugimals, the author reports the experience of a 9-year-old tester. The author’s purpose is to
   A. offer evidence that Hugimals work.
   B. suggest that Hugimals only work on kids.
   C. include a firsthand account of a Hugimals user.
   D. quote a person who has tried out a Hugimal.

5. In what way might the Soul Cap make swimming more inclusive?
   A. It is made for every type of hair.
   B. It is less expensive than other swim caps of its kind.
   C. It aims to make swimming a less-competitive sport.
   D. It could make the sport accommodating to more swimmers’ needs.

6. Based on information in the article, the benefits of OX Delivers are best described as
   A. environmental.
   B. political.
   C. economic.
   D. scientific.

7. Which of the best inventions of 2022 is your favorite, and why?