

# READING COMPREHENSION TESTS

## From Prior STAAR 2018

(Upper Elementary/Middle School)

This is a previously administered portion of a Texas Education Agency STAAR Reading Test. It is in the public domain. We provide this to you free as a service to help you determine whether your upper elementary or middle school student has identifiable skill gaps in reading passages and answering some very basic questions about what they have read.

**These Tests Are In The Public Domain & Available on the TEA Website At The Link Below – You Will Need To Cut & Paste This Link or Search TEA website for 2018 STAAR Released Tests.**

<https://tea.texas.gov/student-assessment/testing/staar/archived-staar-released-test-questions>

We suggest you may want to give a briefer screening assessment rather than the full test. For your convenience, we have included a 2-Passage part of the full test in this document with an answer key just for questions on these passages. The full test and answer key and others are available to you at the link url provided.

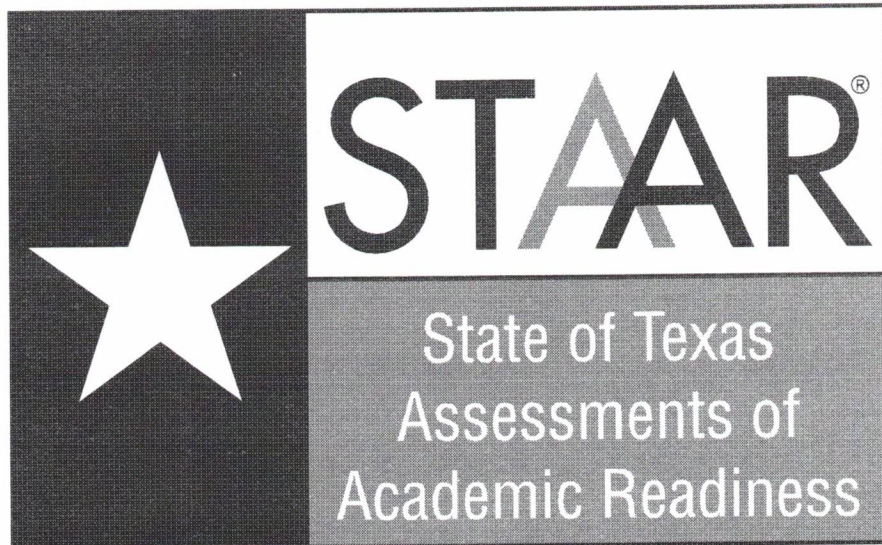
This is provided to you as a service for your convenience at no cost.

# Screening

# 7<sup>th</sup> Grade

# READING

# COMPREHENSION



**GRADE 7**  
**Reading**

**Administered May 2018**

**RELEASED**

Read the next two selections. Then choose the best answer to each question.

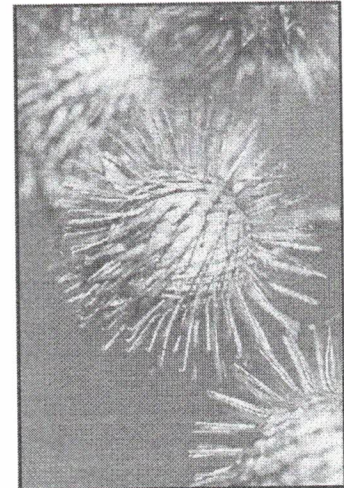
**Inventors Digest**  
*The Source for Inventive Inspiration*

January 2015 • Volume I



## Natural Inspiration

- 1 Many inventors spend years thinking about and developing their ideas before their inventions become reality. Sometimes, though, a person unexpectedly stumbles across the perfect idea, as did the Swiss engineer George de Mestral.
- 2 Mestral was born in 1907 and became interested in building and design when he was a child. As an adult he worked for an engineering company. In 1941, Mestral was outside with his dog when he noticed small, round seedpods stuck to his clothing and his dog's fur. As he was removing these pesky burrs, he began wondering how the seedpods attached themselves to different materials.
- 3 Wanting to learn the answer, Mestral took a look at the burrs under a microscope. What he saw was that the prickly stickers on the burrs had hooks. It was these tiny hooks that allowed the burrs to latch onto the soft loops in the fabric of his clothing and in his dog's fur. Mestral realized he could create something similar that could be used as a fastener. He began to call his idea "velcro"—a combination of the words "velvet" and "crochet."<sup>1</sup> Velcro also became the name of the company that manufactures the fastener.
- 4 When Mestral first presented his idea to manufacturing companies, the companies were not interested. After several rejections, he enlisted the help of sewing experts in France to develop his idea. At first Mestral used cotton for his two-sided fasteners, but repeated fastening and unfastening caused the cotton to wear too quickly. He eventually began using the synthetic material nylon, which was sturdier. It took Mestral nearly 10 years to perfect his design and automated production methods. The invention was patented in Switzerland in 1955.

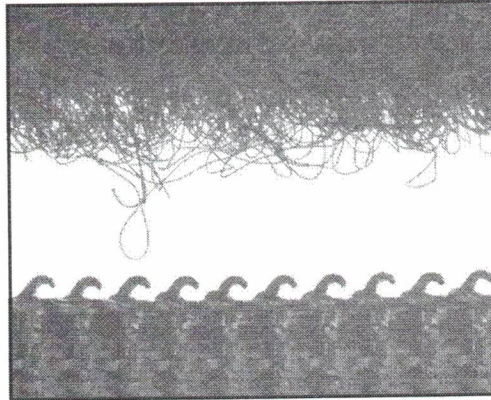


A burr is a seed with hooks that discourage animals from eating the seed.

© Shannon Beauford/Dreamstime.com

<sup>1</sup>Crochet is a method of making cloth that uses a hooked needle to form and weave loops.

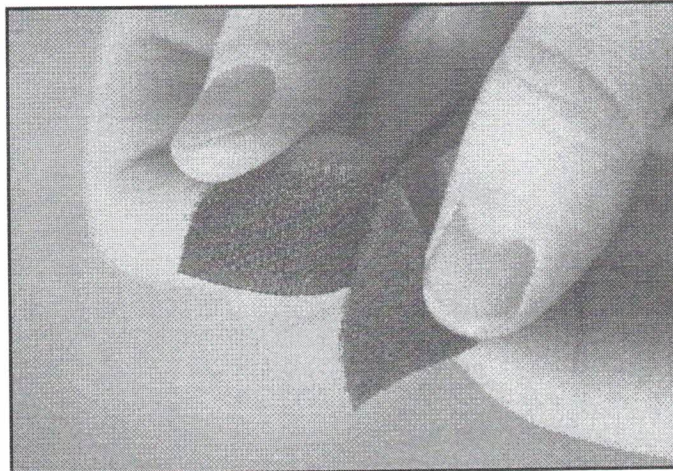




Velcro has become the term for this type of hook-and-loop fastener.

© iStock.com/calebphoto

- 5 Velcro began to sell very well and became known as the “zipperless zipper.” In the 1960s the National Aeronautics and Space Administration (NASA) began using Velcro to secure equipment in the zero-gravity environment of outer space. Velcro was also used to fasten devices in hospitals, hold together car parts, and make the seats of airplanes detachable. In 1968, Velcro made its first appearance on footwear, and soon children around the world were fastening their shoes with Velcro instead of shoelaces.



A Strip of Velcro

© Stocksnapper/Dreamstime.com

- 6 Today the Velcro company is worth millions of dollars because so many people have recognized the variety of uses for the hook-and-loop fastener. Just as Mestral was inspired by nature to create his invention, people continue to be inspired to find new uses for Velcro.

*Third party trademarks Velcro® and NASA® were used in these testing materials.*

# A Brilliant Beetle

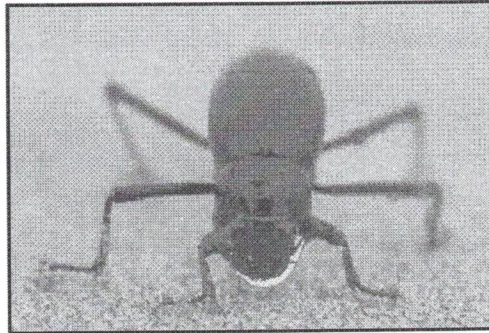
- 1 Natural resources are materials or substances that occur in nature and are of some value to humans. Depending on the environment, certain natural resources are more scarce than others and therefore more valuable. More than one billion people currently live in environments where water is in short supply, making water one of the most highly prized natural resources on the planet. Scientists are always searching for ways to increase access to this valuable resource. They may have found a solution in an unlikely area: one of the most arid places on Earth.
- 2 Despite being one of the world's driest places, with only several inches of annual rainfall, the Namib desert in Africa is home to many creatures. The Namib beetle is a unique organism that thrives in this environment because of its amazing physical adaptation. The wings on the Namib beetle are filled with bumps and grooves that help it collect water from the air. The top of each bump is smooth like glass and attracts water. But the slopes of each bump and the troughs in between the bumps have waxy surfaces that repel water.



The Namib Beetle

© Lucidwaters/Dreamstime.com

- 3 The design of the Namib beetle's wings allows the beetle to harvest water in an environment where there is virtually none. The beetle takes advantage of the fog that rolls into the Namib desert about six times a month. Each time this occurs, the Namib beetle positions its body at a 45-degree angle to the wind. As the wind pushes the fog across the desert, each bump on the beetle's back collects tiny droplets of water. When enough moisture has been collected from the fog, a drop rolls off the bumps into the waxy grooves and then into the mouth of the beetle.



A Drop of Water at the Mouth  
of the Namib Beetle

© Martin Harvey/AfriPics

- 4 Scientists are using the Namib beetle's wing design as a guide for creating their own water-collection surfaces. Scientists working at a laboratory for the British Ministry of Defence have embedded dozens of glass spheres into thin layers of wax. Similar to the bumps and grooves on the wings of the beetle, the smooth glass bubbles collect water, while the wax repels it. By placing the glass-and-wax panels in environments with high-moisture air, the scientists think they will be able to collect water. The scientists hope the beetle-inspired panels can increase people's access to water in areas where water is scarce.
- 5 The Namib beetle's extraordinary wing design may also provide unexpected solutions to other modern-day problems. In areas where dense fog causes disruptions, panels of these water-gathering surfaces may be able to eliminate the fog. This could potentially reduce travel delays at airports and prevent fog-related hazards on roadways. It seems that studying this little beetle may lead to a variety of benefits for humans.



Use "Natural Inspiration" (pp. 14–15) to answer questions 17–20. Then fill in the answers on your answer document.

- 17 The photographs in the article help the reader understand the —
- A reason nylon is superior to cotton for making Velcro
  - B similarity between man-made Velcro and naturally occurring burrs
  - C difficulty Mestral had creating his design for Velcro
  - D reason Mestral thought Velcro would be a useful invention
- 
- 18 One challenge that Mestral encountered while inventing Velcro was finding —
- F different uses for Velcro
  - G a country willing to approve a patent for Velcro
  - H a way to make a profit by selling Velcro
  - J a manufacturer that would produce Velcro

- 19 The reader can conclude from the details in paragraph 4 that Mestral —
- A was determined to make his idea for Velcro a reality
  - B did not receive the product rights for Velcro
  - C was denied help because companies had difficulty manufacturing Velcro
  - D wanted Velcro to be known as the world's best fastener
- 

20 What is the best summary of the article?

- F Velcro, a fastener named from a combination of the words "velvet" and "crochet," was invented by the Swiss engineer George de Mestral. He modeled Velcro after burrs that he found in nature. He learned that nylon was the best material to use to make Velcro.
- G George de Mestral was an engineer from Switzerland who had a curious mind. After studying burrs stuck to his dog's fur, Mestral decided to create a new kind of fastener. Velcro, the product that Mestral created, is a hook-and-loop fastener that works the same way burrs work in nature.
- H George de Mestral was the engineer who invented Velcro, a type of hook-and-loop fastener modeled after burrs Mestral found stuck to his dog's fur. Mestral overcame many obstacles as he worked to produce Velcro. Today, Velcro is commonly used to fasten a variety of materials.
- J A curious man, George de Mestral noticed one day that burrs were stuck to his dog's fur. He looked at these burrs under a microscope and saw that tiny hooks on the burrs allowed them to latch onto the fur. Mestral went on to invent Velcro, which uses hooks similar to those found on the burrs.



**Use "A Brilliant Beetle" (pp. 16–17) to answer questions 21–24. Then fill in the answers on your answer document.**

**21** The photograph after paragraph 3 is included in the selection to —

- A** show the process of how fog turns into water
- B** allow the reader to envision the size of the Namib beetle
- C** help the reader visualize how the Namib beetle collects water
- D** demonstrate how much water is needed by desert insects

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**22** The author focuses on a unique feature of the Namib beetle in order to highlight how the beetle —

- F** could serve as a source of water for desert travelers
- G** struggles to survive in a dry part of the world
- H** uses its wings to stay cool in an arid environment
- J** is able to provide itself with water in the absence of rain

**23** When fog rolls into the desert, the Namib beetle —

- A** releases a waxy substance that covers its back
  - B** positions its body in a specific way
  - C** creates bumps and troughs on its wings
  - D** opens its mouth to drink the water in the air
- 

**24** The author wrote this selection most likely to —

- F** prove that water can be obtained from moist air
- G** explain how an animal has adapted to living in a hostile environment
- H** show how people can apply designs from nature to create solutions to global problems
- J** emphasize that water is a scarce resource in many areas on Earth

Use "Natural Inspiration" and "A Brilliant Beetle" to answer questions 25–29. Then fill in the answers on your answer document.

- 25 What is one way that Velcro and the water-collection panels are **similar**?
- A The creators of both inventions experimented with different materials.
  - B The inventions were both inspired by the same environment.
  - C The models for both inventions were discovered in unexpected sources.
  - D The inventions received the same amount of support in the beginning.
- 
- 26 Which idea is presented in **both** the article and the selection?
- F Simple inventions can provide for basic necessities.
  - G Inventors can find ideas by carefully observing nature.
  - H Selecting the appropriate materials for an invention can be challenging.
  - J Inventions have the greatest chance of success when large companies manufacture them.
- 
- 27 How did the development of Velcro **differ** from the development of the water-collection panels?
- A The water-collection panels took years to create, while Velcro was created in a short period of time.
  - B The water-collection panels are made of synthetic materials, while Velcro is made of natural materials.
  - C The design of the water-collection panels has changed many times, while the design of Velcro has changed very little.
  - D The water-collection panels are intended to solve a specific problem, while Velcro is designed to be applied in many different situations.



- 28 What is one outcome of Mestral’s invention in “Natural Inspiration” that is **not** shared by the scientists’ invention in “A Brilliant Beetle”?
- F Mestral’s invention has proved to be financially successful.
  - G Mestral’s invention is able to replenish something found in nature.
  - H Mestral’s invention can be used to solve more than one problem.
  - J Mestral’s invention inspired new uses beyond its original purpose.
- 

- 29 One **difference** between the Velcro in “Natural Inspiration” and the water-collection panels in “A Brilliant Beetle” is that —
- A Velcro is an expensive item to reproduce, whereas the water-collection panels are made from affordable materials
  - B Velcro has been replaced by other inventions, whereas the water-collection panels are still being used
  - C Velcro has become a commonplace item, whereas the water-collection panels are not widely used
  - D Velcro is useful only in the clothing industry, whereas the water-collection panels can be used in many industries

## Answer Keys For Reading Passages From Prior Released STAAR Tests From 2018

The Full STAAR Tests From Which Two Passages for Each Grade Year Have Been Selected to Give You Insight Into Potential Reading Skill Gaps Your Child May Have. These Are Provided to You Free As A Service. A URL Link To the TEA Website Where Complete Tests Available to You Is Shown Below

5th Grade		6th Grade		7th Grade	
Question	Answer	Question	Answer	Question	Answer
8	F	14	J	17	B
9	B	15	A	18	J
10	H	16	G	19	A
11	D	17	A	20	H
12	F	18	J	21	C
13	C	19	C	22	J
14	H	20	J	23	B
15	D	21	C	24	H
16	F	22	F	25	C
17	C	23	B	26	G
18	G	24	J	27	D
You may have to type the URL below OR when on TEA Website Search "2018 Released STAAR Tests)		25	C	28	F
		26	F	29	C
		27	A		
		28	G		

<https://tea.texas.gov/student-assessment/testing/staar/archived-staar-released-test-questions>

Item Number	Reporting Category	Readiness or Supporting	Content Student Expectation	Correct Answer
1	1	Readiness	7.2(B)	C
2	2	Readiness	7.6 Fig. 19(D)	G
3	2	Readiness	7.8 Fig. 19(D)	A
4	2	Readiness	7.3 Fig. 19(D)	J
5	2	Readiness	7.8(A)	B
6	2	Readiness	7.6(A)	H
7	2	Readiness	7.6(B)	D
8	1	Readiness	7.2(A)	G
9	3	Readiness	7.9 Fig. 19(D)	B
10	3	Readiness	7.9 Fig. 19(D)	F
11	3	Readiness	7.10 Fig. 19(D)	C
12	3	Readiness	7.10(C)	G
13	3	Readiness	7.10(D)	D
14	3	Readiness	7.10(A)	J
15	3	Supporting	7.10(B)	C
16	3	Supporting	7.13 Fig. 19(D)	J
17	3	Supporting	7.13 Fig. 19(D)	B
18	3	Readiness	7.10(A)	J
19	3	Readiness	7.10 Fig. 19(D)	A
20	3	Readiness	7.10 Fig. 19(E)	H
21	3	Supporting	7.13 Fig. 19(D)	C
22	3	Readiness	7.9 Fig. 19(D)	J
23	3	Readiness	7.10(A)	B
24	3	Readiness	7.9 Fig. 19(D)	H
25	1	Readiness	7.19(F)	C
26	1	Readiness	7.19(F)	G
27	1	Readiness	7.19(F)	D
28	1	Readiness	7.19(F)	F
29	1	Readiness	7.19(F)	C
30	2	Supporting	7.4 Fig. 19(D)	F
31	2	Supporting	7.4 Fig. 19(D)	B
32	2	Supporting	7.8 Fig. 19(D)	H
33	2	Supporting	7.4(A)	D
34	2	Supporting	7.4 Fig. 19(D)	H
35	2	Supporting	7.3 Fig. 19(D)	B
36	1	Readiness	7.2(E)	H
37	2	Supporting	7.7 Fig. 19(D)	D
38	2	Supporting	7.7 Fig. 19(D)	G
39	2	Supporting	7.7 Fig. 19(D)	D
40	2	Supporting	7.7 Fig. 19(D)	G
41	2	Supporting	7.8 Fig. 19(D)	D
42	2	Supporting	7.7 Fig. 19(E)	H