

6th Grade Passages

Between BOY and MOY Student Packet

Passage 1 *Caroline Herschel*

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Texas Middle School Fluency Assessment—Version 2.0 © 2010 Texas Education Agency, University of Houston, and The University of Texas System

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Caroline Herschel

Did you know that one of the first women

9 astronomers began her career as a maid?

16 Caroline Herschel was one of six children. When

24 Caroline was small, she suffered from a disease

32 called typhus. She recovered, but her growth was

40 permanently stunted. She only grew to be four feet

49 three inches tall. Her father told her that the only

59 thing she could do in life was to be a maid.

70 Her brother, William, felt sorry for her. He

78 took her to England to live with him. She was

88 his housekeeper. William had a job as a chorus

97 director. He was very skilled in music. But he really

107 had an interest in astronomy. He began to make

116 very powerful telescopes.

119 Soon, people realized how well-made his telescopes
127 were. He began making and selling them. He quit
136 his chorus job. William became very respected in
144 the field of astronomy. He even discovered Uranus.

152 Caroline spent years watching her brother. She
159 began to develop an interest in astronomy too.
167 She learned all she could from him. Soon, she was
177 helping him build telescopes. She kept wonderful
184 notes about their observations.

188 William even gave her her own telescope. He knew
197 she would want to make observations on her own.

206 Her first big accomplishment came when she
213 discovered a comet. She would go on to discover 7
223 more.

224 Caroline won several awards for her work in
232 astronomy. She was even honored in other

239 countries, including Germany and Prussia. In 1835,
246 she became an honorary member of the Royal
254 Astronomical Society. She was one of the first
262 women to achieve this goal.

267 Caroline lived to be 98 years old. She had many
277 friends. When she died, everyone who knew her
285 was sad.

287

An Unusual Job

Robert Crisman has a big job. He works to keep the
11 faces of four Presidents looking good. He repairs
19 cracks on Abraham Lincoln's nose. He smoothes the
27 lines on George Washington's forehead. Of course,
34 Crisman does not work on real Presidents. He works
43 on Mount Rushmore.

46 What is Mount Rushmore? Mount Rushmore is a
54 mountain in South Dakota. It is made of a very
64 hard rock called granite. The faces of George
72 Washington, Thomas Jefferson, Abraham Lincoln,
77 and Theodore Roosevelt are carved into the side
85 of this mountain. The carvings begin at the top
94 of the mountain. They are about 60 feet tall.

103 They were made as a monument to honor these
112 great Presidents. The carvings make people think

119 about what these leaders stood for — courage,
126 leadership, freedom, and a love of country.

133 Why do the carvings need repair? Over time tiny
142 cracks occur in the hard granite. When they first
151 appear, these small cracks are not a problem. But
160 the weather causes some to get bigger. In the
169 winter, rain and melted snow get inside the cracks.
178 When the water freezes, it makes the cracks longer
187 and deeper. When a small crack becomes a large
196 crack, it needs to be repaired. If it is not fixed,
207 pieces of the carvings may break off.

214 How does Robert Crisman do the repairs? Every
222 September Crisman goes down the side of the
230 mountain to see if anything needs to be repaired.
239 To do this, he first puts on special gear. He uses
250 safety belts like the ones used by people who climb
260 mountains. Then Crisman straps himself into a seat.
268 The seat is fastened to strong ropes. Two people on

278 top of the mountain lower Crisman down. Each year
287 Crisman works on the side of the mountain for four
297 days. Each day he works on a different carving. As
307 Crisman climbs around the huge faces, he carefully
315 checks each one. He inspects the carvings for
323 breaks and chips. If he finds a large crack, he fixes
334 it. Before 1991 Crisman filled in the cracks with a
344 paste that took three years to dry. Then a company
354 made something new for him to use called silicone.
363 The silicone fills up the cracks and dries in just one
374 day.

375 When Crisman first started his job, he did not like
385 to look at the ground so far below him. Now he is
397 used to working up high. He likes his job and knows
408 he is doing something important. About two million
416 people visit Mount Rushmore each year. Robert
423 Crisman's work helps keep the Presidents' faces
430 looking good for everyone to see.

436

A Great Comet

For six months in 1997, people watched a glowing
9 object in the night sky. Comet Hale-Bopp made a
19 show in the sky that lasted from January to June.
29 Its head shone as brightly as a star. Its tail swept
40 back like a fan. Some people thought it might be
50 the best comet to pass by Earth in 20 years.

60 Comets begin as dirty chunks of rock in an icy
70 fog. Some of these rocks move toward the sun
79 when its gravity pulls them. Once the rocks get
88 near the sun, they begin to look like comets. Each
98 comet forms a tail and a round head that are
108 characteristic of all comets. The round head and
116 tail make a comet easy to recognize. Comets travel
125 in orbits, or circles, around the sun. These orbits
134 can be big or small. Comets that make small orbits

144 around the sun come near Earth every 200 years
153 or less. They are not very bright, but we see them
164 more often.

166 Hale-Bopp is a comet that makes big orbits around
176 the sun. It will not pass near Earth again for about
187 2,400 years.

189 In the 1990s about 12 comets a year were
198 discovered. Most of these could not be seen in the
208 sky without special equipment because they did not
216 come very close to Earth. Even though Hale-Bopp
225 was far away from Earth, it could be seen because
235 its head was huge. The heads of most comets
245 are no larger than six miles in diameter. Hale-
254 Bopp's head was about 25 miles across. Because
263 of its size, Hale-Bopp glowed brightly. Most of
272 the famous comets have had long, thin tails that
281 streamed for millions of miles. Hale-Bopp's tail was
290 wider and shorter.

291 People enjoyed watching Hale-Bopp for several
298 reasons. It glowed brightly. Hale-Bopp could be
306 seen without a telescope for six months, from an
315 hour after sunset until an hour before sunrise each
324 day. Everyone had sufficient time to see this bright
333 traveler. There were plenty of chances to look at it.
343 There will continue to be many more comets for us
353 to see. Like Hale-Bopp, they will look like glowing
363 balls in the night sky.
368