

# 8th Grade Progress Monitoring

## August–November Student Packet

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## What Was Amanda's Message?

10 Once there was a village beside a river. The lovely  
20 river flowed quietly to the sea. The river gave the  
30 people of the village water to drink. It also gave  
them water for their plants and animals.

37 In this village lived a family with a young daughter  
47 named Amanda. She was quiet like the river.

55 Amanda often walked through the forest near her  
63 house. She loved looking at all the beautiful trees.

72 Her favorite was the willow tree. Its branches bent  
81 toward the ground as if reaching down to her.

90 Amanda had a special ability. She noticed things  
98 that other people did not. Walking through the  
106 forest, she would see a squirrel sitting on the  
115 highest branch of a tree. She would notice the first

125 golden leaf as summer turned to fall. During spring  
134 Amanda was the first to notice that wildflowers  
142 were beginning to bloom.

146 One year there was very little rain. By summer the  
156 river had dried up. The people of Amanda's village  
165 dug a well, but they did not find water. They had  
176 to go to another village far away to get water. It  
187 was a long, hard journey. Sometimes the people  
195 could not carry as much water as they needed. This  
205 caused them to worry.

209 While walking through the forest one day, Amanda  
217 noticed the leaves of the trees. Without rain they  
226 had turned dry and brown. Then she came upon  
235 the willow tree. Its branches still had tender green  
244 leaves!

245 "The willow's leaves are still soft and green, but all  
255 the other leaves are dry and brown," she said to

265 herself. "Perhaps the willow's roots can seek and  
273 find water that other trees cannot."

279 Amanda ran home as fast as she could. She  
288 couldn't wait to relay what she had noticed to her  
298 family. When she reached her house, she saw that  
307 other people from the village were there. They were  
316 talking about how to find water.

322 "The leaves of the willow tree are still green,"  
331 Amanda announced eagerly. "We should dig a well  
339 where the willow's roots end. We might find water  
348 there."

349 The people of the village stared at Amanda in  
358 surprise. She was generally very quiet. In fact,  
366 many villagers had never heard her speak. They  
374 knew that her message must be important, so they  
383 followed Amanda to the willow tree. There they dug

392 a deep well where the willow's roots stopped. Water  
401 filled the well just as Amanda had promised.

409 The people of the village were happy. They began  
418 to sing and dance around their new well. Amanda  
427 was happy, too. She and the willow tree had helped  
437 save her village.

440

## Mistippee

In November 1825 a group of Creek Indians met  
9 with men who worked for President John Quincy  
17 Adams. The Creek men needed help because people  
25 were taking their land. The following letter is from  
34 James, the son of one of the men who went to the  
46 meeting.

47 November 30, 1825

50 Dearest Mama,

52 I went with Papa today to meet with the leaders

62 of the Creek Indians. Papa needed me to help

71 him with the horses. There were many Creek

79 **men** sitting at the table when we walked into the

89 meeting place. The Creek men sat tall and straight.

98 They were very quiet. Their eyes were kind, and

107 their voices were gentle. Papa told me that the man  
117 sitting at the head of the table was a chief.

127 Standing behind him was a boy who looked 12  
136 years old, like me. The first thing I noticed about  
146 the boy was his clothes. He wore a white cotton  
156 shirt, like mine. However, he also wore boots, a  
165 vest, and pants all made from deerskin. These  
173 clothes were very different from mine. I was  
181 wearing pointed black leather shoes, a button-down  
189 coat, and wool pants. The Creek boy had markings  
198 on his face. There was a line of blue dots painted  
209 on each side of his face and an orange sun painted  
220 above his nose. Papa told me later that each mark  
230 had a meaning.

233 Papa and the boy's father told us to go outside  
243 while the men talked. The boy spoke perfect  
251 English. He said that he could read and write in  
261 English, too. He told me his name was Mistippee.

270 He said that his father had educated him. Mistippee  
279 wanted to know everything about me and asked  
287 a lot of questions. I told him about our small farm  
298 where we grow wheat. I also told him that I share  
309 a room upstairs with my three brothers. Then  
317 he asked about my school. I told him that I go  
328 to school in the same room as my brothers even  
338 though we are not the same age. I also asked  
348 Mistippee many questions. He answered them all  
355 very politely. He told me his family has two houses  
365 built near each other. One is used in winter and  
375 one in summer. The winter house is made of wood  
385 and mud. Mistippee said that it is very warm. The  
395 summer house is made of wood and grass. It has  
405 open sides to let the air in. Mistippee told me his  
416 people fish and hunt. They hunt animals such as  
425 rabbits and deer for both food and clothing.

433 His family grows corn, beans, and pumpkins.

440 Some Creek children help their mothers dig in the

449 fields, plant seeds, and gather crops. His people  
457 also gather berries and many other wild plants for  
466 food. Mistippee said he must help chop firewood  
474 and take care of the horses. I told him that I had  
486 to do those things, too. He laughed when I told him  
497 about how I almost got kicked by my horse the first  
508 time I tried to put a horseshoe on it. He said he had  
521 almost been kicked by a horse once, too.

529 Before long, it was time to leave. Mistippee shook  
538 my hand and said farewell. On the way back to the  
549 inn where we would stay the night, I told Papa all  
560 about Mistippee. I hope that I get to see Mistippee  
570 again. Papa told me we should be on our way home  
581 in a few days. I miss you.

588 Your son,

590 James

591

## A Friend on the Trail

Doodle the rooster usually crowed at sunrise, but  
8 this morning Elizabeth awoke to the sounds of other  
17 birds. She poked her head through the curtain  
25 of her family's covered wagon and gazed at the  
34 unfamiliar surroundings. Late in the spring of 1856,  
42 her family had joined a train of covered wagons.  
51 They had begun their long journey to make a new  
61 home in the West. That was more than four months  
71 ago. Soon they would reach their destination.

78 After breakfast Elizabeth checked the cage tied to  
86 the back of the wagon. This was where Doodle and  
96 their three hens rode. Each night Doodle and the  
105 hens were allowed to roam freely. They had always  
114 returned by morning. Today, however, Doodle was  
121 not in the cage.

125 "Doodle, where are you?" Elizabeth muttered. She  
132 looked in all directions.

136 "Why don't you walk down to the stream," her  
145 mother suggested. "You need to get water for the  
154 day's journey. Perhaps you'll find Doodle there."

161 Grabbing the bucket, Elizabeth headed for the  
168 stream. She crossed through a field of lovely  
176 wildflowers. Along the stream's bank she saw a  
184 Native American girl. The girl wore a round hat  
193 made of woven grass. She dipped her hat into the  
203 water and took a drink. Looking up, the girl smiled.

213 "My name is Sisika," she said. "I'm Elizabeth.  
221 I've come to get water and to find my rooster,"  
231 Elizabeth explained.

233 Together they began searching. They did not have  
241 to look long before they found Doodle. He was  
250 feasting on large crickets in the tall grass.

258 "Doodle, you've found a good breakfast," Elizabeth  
265 remarked.

266 "These are tasty crickets," Sisika replied. "My  
273 mother dries them, and we make delicious cricket  
281 soup."

282 "I like to help my mother cook, too," Elizabeth said.  
292 With these words Elizabeth realized something.  
298 It occurred to her that she and Sisika might have  
308 many things in common. She wished that she could  
317 stay and visit longer. Elizabeth carefully picked  
324 up Doodle in her arms. Then she remembered her  
333 empty bucket.

335 "I can help," Sisika offered. "I'll fill your bucket and  
345 carry it for you."

349 Together Elizabeth and Sisika walked back to the  
357 wagon. Elizabeth returned Doodle to the cage. The  
365 restless oxen tugged on the wagon, signaling that  
373 they were ready to depart. Elizabeth reached into  
381 the wagon for her favorite doll. With a sad smile of  
392 good-bye, she gave it to Sisika. Then Sisika placed  
402 her necklace around Elizabeth's neck. Just then a  
410 man rode up on a beautiful spotted horse.

418 "This is my father," Sisika explained to Elizabeth.  
426 The man helped Sisika climb up onto the horse.  
435 Then he noticed the doll that she was holding. He  
445 also recognized the necklace Elizabeth was wearing.

452 "The river up ahead can be treacherous. There are  
461 places where it is deep and the waters are fast," he

472 said to Elizabeth. "Tell your father that Sisika and I  
482 will lead your wagons safely across the river."

490 Sisika and Elizabeth waved to each other. Then  
498 Sisika and her father rode to the front of the wagon  
509 train. Moments later the wagons jerked forward.  
516 The wagon train began to roll westward again.

524 Crossing the river, Elizabeth studied her new  
531 necklace happily. She had made a friend on the  
540 trail.

541

## Suni

My name is Suni. I am a Chinese White Dolphin. Do  
11 you know what's special about the Chinese White  
19 Dolphin? I'm pink. Most people have never heard  
27 of, or seen, a pink dolphin.

33 I want to tell you about a serious problem that we  
44 are all facing. But first, let me describe myself.

53 I live off the shores of Hong Kong and Southern  
63 China. This area is called the Pearl River Delta.

72 There are less than 200 of us here. We are not  
83 born pink. In fact, when we are born, we are black.

94 As we get older, our color turns to gray. Then it  
105 becomes pinkish gray with spots. It is when we

114 enter adulthood that we become pinkish white and  
122 our spots fade. As adults, we usually reach a length  
132 of eight to nine feet. Unfortunately, most of the

141 calves born today don't reach adulthood. Thus,  
148 they never get to show off their beautiful pink  
157 color. We could live up to 40 years, but because of  
168 the many hazards we face most of the calves don't  
178 even survive. We are endangered. Our population is  
186 dwindling.

187 The water we live in is unhealthy. Raw sewage has  
197 been routinely dumped into our waters. There are  
205 so many fishermen that sometimes we get stuck  
213 in nets or hit by boats. I have a scar on my right  
226 side from when a boat hit me. Some nice humans  
236 found me. They helped me get well again. My  
245 wound hurt a lot, but I was one of the lucky ones.  
257 I've known dolphins that haven't survived that type  
265 of accident. The high numbers of fishermen pose  
273 another threat to us as well. They're catching so  
282 many fish that there aren't enough to sustain all of  
292 us here.

294 We can't leave the area. It is part of our nature to  
306 stay close to the shore and to be in these types of  
318 waters. Legislation in Hong Kong has attempted  
325 to keep us safe, but that has not helped much. To  
336 raise money to help keep us safe, Hong Kong has  
346 started a dolphin-watching program. They bring  
353 people out on boats to watch us. We don't like that  
364 very much. We're kind of shy around people. We  
373 tend to go away from boats coming toward us,  
382 especially since so many of us have been hurt by  
392 them. However, sometimes we do perform and let  
400 them see us jump and dive.

406 I want everyone to know about us. I want us all  
417 to be protected. We all want our calves to live and  
428 grow to be adults. We hope that these rules and  
438 many more new ones will help us survive. We don't  
448 want to be extinct.

452

## 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

## Underground Town

How would you like to live underground? Many

8

families in the town of Coober Pedy, Australia, do

17

just that. Their houses, called dugouts, are carved

25

out of the earth. They are similar to regular houses.

35

They have kitchens, bedrooms, and living rooms,

42

but they have few windows. Most of the light in

52

the houses is artificial. It comes from lamps and

61

overhead lights instead of direct sunlight. The roofs

69

of the homes are made of layers and layers of dirt.

80

People in the town build dugouts because of where

89

they live. Coober Pedy is in a desert in southern

99

Australia. Temperatures can climb as high as 120

107

degrees in the summer. They can plunge as low as

117

32 degrees in the winter. Dust storms and swarms

126

of flies can make life miserable. Underground,

133 though, it is always a comfortable 75 degrees.

141 People don't even need fans.

146 Why would people want to live in such a place?

156 Coober Pedy is an opal-mining town. Opals are

165 colorful stones used for jewelry. The mines in

173 Coober Pedy produce most of the world's opals.

181 Early settlers in Coober Pedy realized that they

189 could avoid the harsh temperatures by building

196 their homes underground. Today almost half of

203 the 3,500 people in the town live in dugouts.

212 Restaurants, schools, and other buildings are also

219 underground. People in Coober Pedy enjoy their

226 lives "down under."

229

## Vickie and the Kitten

Vickie wanted a kitten more than anything. When  
8 she was old enough to take care of a pet, her  
19 parents bought her a kitten as a surprise. It was  
29 tiny and as white and soft as cotton. In fact, Vickie  
40 named him Cotton. After her parents brought him  
48 home, Vickie and her brother Kevin played with  
56 Cotton. They watched him chase a piece of string.  
65 They took turns holding him and petting his soft  
74 fur. Vickie and Kevin held the kitten close. Cotton  
83 purred and looked up at them with big green eyes.

93 Then Kevin began to sneeze, and his eyes became  
102 red. The more he held the kitten, the more he  
112 sneezed.

113 “Uh-oh,” their dad said with a worried look. “Maybe  
122 Kevin shouldn’t be in contact with the kitten.”

130 “I’ll keep Cotton in my room away from Kevin,”  
139 Vickie suggested. “Then Kevin won’t sneeze.”

145 But Kevin kept sneezing, and his eyes watered.

153 Finally Vickie’s mom said, “I’m sorry, Vickie. We  
161 can’t keep Cotton if he makes Kevin sick.”

169 Vickie began to sob. Her mom hugged her and  
178 wiped away her tears. “Vickie, I know this is hard.

188 But we’ll find a good home for Cotton. With Kevin  
198 sneezing, this isn’t the right home for a cat.” Vickie  
208 understood, but she was disappointed.

213 The next day Vickie’s mom suggested that they call  
222 Mrs. Parsi, who lived across the street. She already  
231 had two cats, but she might know someone who

240 wanted a kitten. Vickie agreed sadly while Cotton  
248 purred happily.

250 "I do know a family who wants a kitten," Mrs. Parsi  
261 told them in a cheerful voice. "Their last name is  
271 Martin. They just moved into the house next door  
280 to me. They had planned to get a kitten once they  
291 were settled in their new home."

297 That evening Vickie and her mom knocked on the  
306 Martins' door. Mr. and Mrs. Martin greeted them  
314 warmly. They smiled with delight when they saw  
322 Cotton. "He's beautiful!" Mrs. Martin said. "Cotton  
329 is the perfect name for him."

335 Mr. Martin noticed Vickie's sad face. He said,  
343 "Vickie, maybe you can help us take care of Cotton.  
353 You can come over anytime and play with him."

362 Just then a girl about Vickie's age came down the  
372 stairs. "Oh, what a cute kitten!" she exclaimed  
380 when she saw Cotton. "I love his big green eyes."

390 "His name is Cotton," Vickie said. "He loves to  
399 chase string."

401 Together the girls played with Cotton. They laughed  
409 as Cotton jumped for the string and ran after it.  
419 They talked together as they played. Vickie learned  
427 that the girl's name was Marie. They would be in  
437 the same class at school.

442 A while later Vickie's mom said it was time to go  
453 home. Vickie smiled as she said farewell to Cotton  
462 and handed him to Marie. Vickie waved. She  
470 thought, "Cotton has the right home now, and I  
479 have a new friend."

483

## A Wonderful Friendship

Helen Keller was a young girl who couldn't see  
9 or hear. Alexander Graham Bell was the famous  
17 scientist who invented the telephone. These  
23 two famous people not only knew each other,  
31 but together they also opened up new worlds of  
40 conversation.

41 Helen Keller was born in 1880. When she was a  
51 baby, she lost her sight and hearing. Because  
59 of her inability to hear, she did not learn how  
69 to speak. Even so, it was clear that she was an  
80 intelligent child and was eager to learn. Keller's  
88 family did everything they could to find a way to  
98 educate her.

100 When Helen Keller was six years old, her parents  
109 took her to see Alexander Graham Bell. He was well  
119 known for his inventions. He was also a teacher of  
129 deaf people. He considered teaching to be his most  
138 important work.

140 Bell recognized Keller's intelligence. At his  
146 suggestion her parents hired a private teacher  
153 named Anne Sullivan. She worked with Keller every  
161 day. Through her persistence Sullivan was able to  
169 teach Keller words and their meanings. With a great  
178 deal of constant work, Sullivan taught Keller how to  
187 read and write. One of the first letters Keller wrote  
197 was to Bell.

200 Bell encouraged Keller to learn as much as she  
209 could. Sometimes they would go on rides or visit  
218 the zoo. They also shared a love of books. Bell  
228 would tell her stories by using his fingers to spell  
238 the letters of words in her hand.

245 One day Bell told Keller about his invention called  
254 the telephone. He explained how it was enriching  
262 lives. People all over the world benefited by being  
271 able to talk to each other when they were in  
281 separate places. Although Keller could not use the  
289 phone without help, she understood that it was  
297 important.

298 Bell opened a school for deaf students and formed  
307 an information center to help people understand  
314 the needs and abilities of deaf people. Keller was  
323 very interested in Bell's work with deaf children.

331 Keller had worked hard and set goals for herself.  
340 Because she wanted to help Bell by telling other  
349 people about his work, she decided to take lessons  
358 to learn to speak. When she felt comfortable  
366 speaking in public, she gave a speech at Bell's  
375 information center. She told the audience how

382 happy she was to be able to speak to them about  
393 Bell's work with deaf people.

398 Bell's invention of the telephone helped hearing  
405 people talk to each other. His teaching helped deaf  
414 people talk to each other and to the hearing world.  
424 His support and instruction helped Keller express  
431 herself by writing and even speaking. Helen Keller  
439 went on to finish college and became a well-known  
449 writer.

450 When she wrote a book about her life, Helen Keller  
460 dedicated it to Alexander Graham Bell. This was a  
469 symbol of their lasting friendship.

474

## Mrs. Mason's Gift

Gina climbed the steps to Mrs. Mason's porch.

8 She enjoyed visiting the former schoolteacher and

15 listening to her stories. Mrs. Mason was sitting

23 with a book on her lap, surrounded by her cats

33 and the many plants she tended. Today was the

42 day Gina would say good-bye until next summer.

51 School would start next week. Her stay with her

60 grandmother and the afternoons spent with her

67 grandmother's neighbor Mrs. Mason were over for

74 this year. Gina's parents were waiting for her in the

84 car.

85 "Thanks for all the cookies and stories, Mrs. Mason.

94 From what you've told me, school sure must have

103 been different when you were teaching. It's hard to

112 believe that computers weren't around then."

118 Mrs. Mason smiled and said, "I have something for  
127 you." She handed Gina the book she was holding.  
136 The pages were blank. The word Journal was  
144 printed on the cover.

148 After waving good-bye to her grandmother and  
156 thanking Mrs. Mason for the gift, Gina settled  
164 down in the back seat for the long drive home. She  
175 opened the journal Mrs. Mason had given her and  
184 found a letter inside. After reading it carefully, she  
193 knew she would soon fill her journal with memories  
202 of the summer and hopes for the new school year.

212 Dear Gina,

214 Use this journal as a tool to focus on yourself and  
225 the world around you. You can write about your  
234 thoughts, memories, and daily life. Your journal  
241 will then be a personal record of things that are  
251 important to you. To keep a journal, follow these

260 simple steps. 1. Set aside a time to write every  
270 day. Decide what time of day is best for you.  
280 2. Write about things that interest you. People,  
288 places, and everyday happenings are good topics.  
295 You may choose to stick to prose or try some  
305 poetry. 3. Write the day's date before each entry.  
314 What you write will become more interesting to you  
323 as time goes by. Later you'll have fun reading your  
333 first entries. Once you start writing, you will get  
342 more ideas. I hope this little book will lead to many  
353 years of journal writing. See you next summer.

361 Your friend,

363 Mrs. Mason

365

## Spreading Wildflowers

Claudia Taylor was born in Karnack, Texas, in 1912.

9 As a young child she was given the nickname Lady  
19 Bird. She grew up in the country, and it was there  
30 that her lifelong love of nature began. Throughout  
38 her childhood and adult years, she has enjoyed  
46 being outdoors, looking for the beautiful flowers  
53 that grow naturally in open fields.

59 In 1929 the state of Texas started a wildflower  
68 program. The highway department waited for the  
75 flowers to go to seed before they were mowed.

84 Then the seeds would spread and grow into plants  
93 the next year. Lady Bird enjoyed exploring the  
101 countryside in search of different wildflowers. She  
108 continued to do so after moving to Austin in 1930

118 to attend the University of Texas. Four years later  
127 Lady Bird married Lyndon B. Johnson.

133 In 1964 Lyndon Johnson was running for President  
141 of the United States. As he and his wife traveled  
151 around the country, Lady Bird saw beauty as  
159 well as blight. Some areas suffered from neglect  
167 and ugliness. When Lady Bird's husband won the  
175 election, she wanted to do something to make the  
184 nation's capital look more beautiful. The following  
191 year she found a way to do that.

199 Lady Bird helped set up the Committee for a More  
209 Beautiful Capital. She was chosen to head the  
217 group of volunteers. They met once a month at  
226 the White House to discuss ideas and make plans.  
235 They decided their program could be successful  
242 only if people in the community were willing to get  
252 involved. To attract attention, volunteers planted  
258 flowers around the city in hundreds of places that

267 many people passed each day. They encouraged  
274 businesses to plant grass, shrubs, and flowers.  
281 They organized cleanups and fix-up projects in  
289 neighborhoods. They also tried to improve school  
296 yards and playgrounds. The committee gave awards  
303 each year to neighborhoods, businesses, and public  
310 spaces.

311 The ideas of the committee quickly spread across  
319 the country. Some states began setting up their  
327 own programs to preserve flowers and to plant new  
336 ones. Thanks to Lady Bird, many of these programs  
345 included wildflowers. In the state of Texas, people  
353 continued to strengthen the program that had been  
361 adopted almost 40 years before the committee  
368 began its work.

371 The Johnsons returned to Texas in 1969. Lady Bird  
380 wanted to do something to encourage more people  
388 to plant wildflowers. She knew that little was known

397 about growing these flowers in gardens and that  
405 more research needed to be done.

411 In 1970 Lady Bird began a project to make the city  
422 of Austin more lovely. A variety of colorful flowers  
431 and trees were planted along the banks of a major  
441 river. Trails for hiking and biking were also added.  
450 This project helped inspire the idea for building a  
459 center for studying native plants. In 1982 Lady  
467 Bird gave a large sum of money and 60 acres of  
478 land near Austin to build the National Wildflower  
486 Research Center. The purpose of the center was to  
495 learn about wildflowers and share new information  
502 with interested people everywhere. In 1998 Lady  
509 Bird was honored for her tireless efforts to make  
518 our nation more beautiful. The name of the center  
527 was changed to the Lady Bird Johnson Wildflower  
535 Center.

536

## Coral Reefs

A coral reef is an interesting structure located in a  
10 warm, shallow part of the ocean. It is a beautiful  
20 world of shape and motion. Sunshine pours in  
28 through the ocean's surface, brightly illuminating  
34 the colorful scene. Many amazing plants and  
41 animals live in this underwater world. Fish swim  
49 through colorful rocky shapes, and crabs move in  
57 and out of caves.

61 A coral reef is made by tiny animals called polyps.  
71 They discharge a substance from their bodies that  
79 hardens into limestone and forms their outside  
86 covering. Each polyp attaches itself to other polyps,  
94 adding other layers to the structure. The structure  
102 continues to grow upward until it becomes the base  
111 of a new coral reef. The three main types of coral

122 reefs are the fringing reef, the barrier reef, and the  
132 atoll.

133 A fringing reef is either connected to the shore or  
143 very close to it. It has a flat surface that appears at  
155 or below sea level. As it extends outward from the  
165 shore, it drops off into deeper water. It is usually  
175 divided into sections by channels of water, and it  
184 has a raised rim. There are many fringing reefs in  
194 the Hawaiian Islands.

197 Reefs that are farther out from shore are called  
206 barrier reefs. The water that lies between a barrier  
215 reef and the shore is a shallow pond called a  
225 lagoon. The Great Barrier Reef is located off the  
234 northeast coast of Australia and is about 1,250  
242 miles long. Its distance from the shoreline ranges  
250 from 10 to 150 miles.

255 The third kind of reef is called an atoll. This kind of  
267 reef forms islands in places where it rises above the  
277 ocean's surface. An atoll has a horseshoe or circular  
286 shape. Its lagoon is in the center and always has  
296 at least one place where it is connected to the  
306 open ocean. Ocean water flows through this space,  
314 keeping the lagoon's water fresh. The Marshall  
321 Islands, in the South Pacific Ocean, consist of many  
330 atolls. All coral reefs are important parts of our  
339 environment that continue to provide homes for  
346 many plants and animals.  
350

## Faces on the Mountain

In 1924 Doane Robinson of the South Dakota

8 Historical Society had an idea. He thought carving

16 huge stone faces into a mountainside would be a

25 wonderful gift to the people of the United States.

34 The monument would also attract tourists to his

42 state. He hired sculptor Gutzon Borglum to do the

51 carving. Mount Rushmore's giant faces now bring

58 millions of visitors to South Dakota to see one of

68 the largest public monuments ever created.

74 Borglum chose Mount Rushmore in the Black Hills

82 as the site for the carving. The mountain's rock

91 face was 400 feet high and 1,000 feet across.

100 The carvings would last because the rock was

108 hard granite without deep cracks or other obvious

116 flaws. Because it faced southeast, the rock face

124 was lit by the sun most of the day, so the carved  
136 faces would not be in the shadows. Robinson  
144 suggested carving the faces of western heroes  
151 such as Lewis and Clark. Borglum wanted to honor  
160 the Presidents who had helped make the United  
168 States a great nation. Borglum's vision won out. He  
177 chose George Washington, the first President, and  
184 Thomas Jefferson, the author of the Declaration of  
192 Independence. Next he chose Abraham Lincoln, his  
199 personal hero, and finally the great outdoorsman  
206 Theodore Roosevelt.

208 Work began on August 10, 1927. Artisans used  
216 dynamite to blast rock from the mountain. Then  
224 they cut away more rock to create the faces. These  
234 master craftsmen sat in special chairs on long  
242 cables that hung over the side of the mountain.  
251 Borglum used a five-foot-high plaster model of the  
261 faces to direct the workers. When workers started  
269 carving Jefferson's face, they found that the rock

277 on that side of the mountain was unstable. Borglum  
286 had to readjust his plans and carve Jefferson on the  
296 other side of Washington. The original carving of  
304 Jefferson's face was blasted away with dynamite.  
311 Lincoln was carved after Jefferson, and Roosevelt  
318 was carved last. It took workers six and a half  
328 years to finish the carving, though the memorial  
336 wasn't completed for 14 years because of financial  
344 problems.

345 The memorial's 50th anniversary was celebrated  
351 with an elaborate party on July 3, 1991. Nineteen  
360 of the men who had helped build the monument  
369 attended. Today the site is more popular than ever,  
378 attracting close to three million visitors each year.  
386