

APPENDIX B

Sample PIRLS Passages, Questions, and Scoring Guides

Reading for Literary Experience

Enemy Pie

Reading to Acquire and Use Information

The Mystery of the Giant Tooth

Enemy Pie

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illustrated by Tara Calahan King

It was a perfect summer until Jeremy Ross moved in right next door to my best friend Stanley. I did not like Jeremy. He had a party and I wasn't even invited. But my best friend Stanley was.

I never had an enemy until Jeremy moved into the neighborhood. Dad told me that when he was my age, he had enemies, too. But he knew of a way to get rid of them.

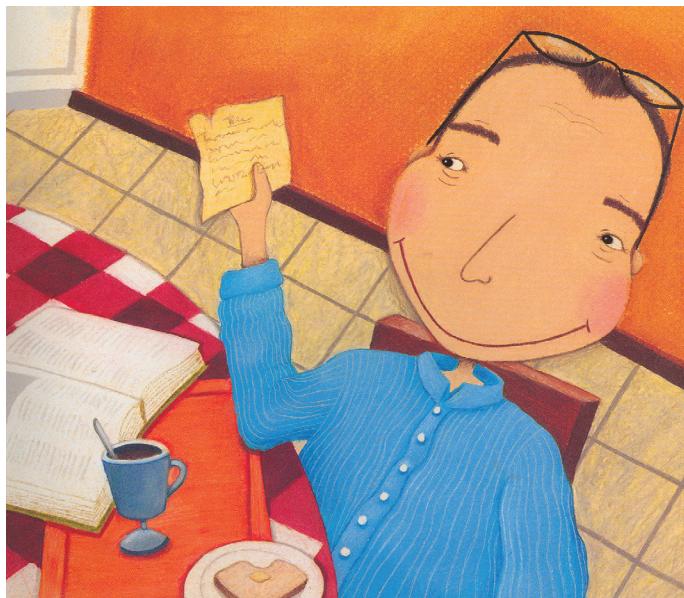
Dad pulled a worn-out scrap of paper from a recipe book.

"Enemy Pie," he said, satisfied.

You may be wondering what exactly is in Enemy Pie. Dad said the recipe was so secret, he couldn't even tell me. I begged him to tell me something—anything.

"I will tell you this, Tom," he said to me. "Enemy Pie is the fastest known way to get rid of enemies."

This got me thinking. What kinds of disgusting things would I put into Enemy Pie? I brought Dad earthworms and rocks, but he gave them right back.





I went outside to play. All the while, I listened to the sounds of my dad in the kitchen. This could be a great summer after all.

I tried to imagine how horrible Enemy Pie must smell. But I smelled something really good. As far as I could tell, it was coming from our kitchen. I was confused.

I went inside to ask Dad what was wrong. Enemy Pie shouldn't smell this good. But Dad was smart. "If it smelled bad, your enemy would never eat it," he said. I could tell he'd made this pie before.

The oven buzzer rang. Dad put on oven mitts and pulled out the pie. It looked good enough to eat! I was beginning to understand.

But still, I wasn't sure how this Enemy Pie worked. What exactly did it do to enemies? Maybe it made their hair fall out, or their breath stinky. I asked Dad, but he was no help.

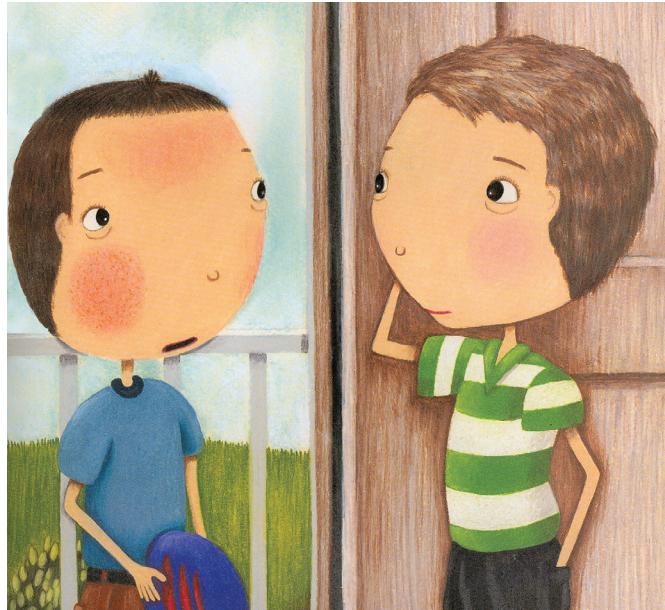
While the pie cooled, Dad filled me in on my job.

He whispered. "In order for it to work, you need to spend a day with your enemy. Even worse, you have to be nice to him. It's not easy. But that's the only way that Enemy Pie can work. Are you sure you want to do this?"

Of course I was.

All I had to do was spend one day with Jeremy, then he'd be out of my life. I rode my bike to his house and knocked on the door.

When Jeremy opened the door, he seemed surprised.



“Can you come out and play?” I asked.

He looked confused. “I’ll go ask my mom,” he said. He came back with his shoes in his hand.

We rode bikes for awhile, then ate lunch. After lunch we went over to my house.

It was strange, but I was having fun with my enemy. I couldn’t tell Dad that, since he had worked so hard to make the pie.

We played games until my dad called us for dinner.

Dad had made my favorite food. It was Jeremy’s favorite, too! Maybe Jeremy wasn’t so bad after all. I was beginning to think that maybe we should forget about Enemy Pie.

“Dad”, I said, “It sure is nice having a new friend.” I was trying to tell him that Jeremy was no longer my enemy.

But Dad only smiled and nodded. I think he thought I was just pretending.

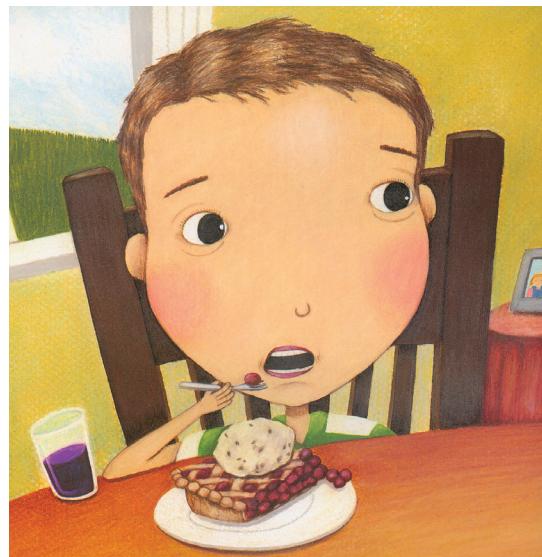
But after dinner, Dad brought out the pie. He dished up three plates and passed one to me and one to Jeremy.

“Wow!” Jeremy said, looking at the pie.

I panicked. I didn’t want Jeremy to eat Enemy Pie! He was my friend!

“Don’t eat it!” I cried. “It’s bad!”

Jeremy’s fork stopped before reaching his mouth. He looked at me funny. I felt relieved. I had saved his life.



"If it's so bad," Jeremy asked, "then why has your dad already eaten half of it?"

Sure enough, Dad was eating Enemy Pie.

"Good stuff," Dad mumbled. I sat there watching them eat. Neither one of them was losing any hair! It seemed safe, so I took a tiny taste. It was delicious!

After dessert, Jeremy invited me to come over to his house the next morning.

As for Enemy Pie, I still don't know how to make it. I still wonder if enemies really do hate it or if their hair falls out or their breath turns bad. But I don't know if I'll ever get an answer, because I just lost my best enemy.



Questions Enemy Pie

1. Who is telling the story?

- A Jeremy
- B Dad
- C Stanley
- D Tom

2. At the beginning of the story, why did Tom think Jeremy was his enemy?



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3. Write **one** ingredient that Tom thought would be in Enemy Pie.



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4. Find the part of the story next to the picture of a piece of pie:  . Why did Tom think it could be a great summer after all?

- (A) He liked playing outside.
- (B) He was excited about Dad's plan.
- (C) He made a new friend.
- (D) He wanted to taste Enemy Pie.

5. How did Tom feel when he first smelled Enemy Pie? Explain why he felt this way.



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6. What did Tom think could happen when his enemy ate Enemy Pie? Write **one** thing.



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7. What were the **two** things Tom’s dad told Tom to do for Enemy Pie to work?



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8. Why did Tom go to Jeremy’s house?

- (A) To invite Jeremy to dinner.
- (B) To ask Jeremy to leave Stanley alone.
- (C) To invite Jeremy to play.
- (D) To ask Jeremy to be his friend.



(1)
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9. What surprised Tom about the day he spent with Jeremy?

10. At dinner, why did Tom begin to think he and his dad should forget about Enemy Pie?
- (A) Tom did not want to share dessert with Jeremy.
- (B) Tom did not think Enemy Pie would work.
- (C) Tom was beginning to like Jeremy.
- (D) Tom wanted to keep Enemy Pie a secret.
11. How was Tom feeling when Dad passed the piece of Enemy Pie to Jeremy?
- (A) alarmed
- (B) satisfied
- (C) surprised
- (D) confused



12. What was it about Enemy Pie that Dad kept secret?

- A It was a normal pie.
- B It tasted disgusting.
- C It was his favorite food.
- D It was a poisonous pie.

13. Look at this sentence from the end of the story:

“After dessert, Jeremy invited me to come over to his house the next morning.”

What does this suggest about the boys?

- A They are still enemies.
- B They do not like to play at Tom’s house.
- C They wanted to eat some more Enemy Pie.
- D They might be friends in the future.

14. Use what you have read to explain why Tom’s dad really made Enemy Pie.



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15. What kind of person is Tom’s dad? Give an example of what he did in the story that shows this.



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16. What lesson might you learn from this story?



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Scoring Guides for Constructed-response Questions

Enemy Pie, Item 2

2. At the beginning of the story, why did Tom think Jeremy was his enemy?

Purpose: Literary

Process: Make Straightforward Inferences

1 – Acceptable Response

The response shows understanding that Tom considered Jeremy his enemy, either because Jeremy did not invite him to his party, or because Jeremy invited Tom's best friend Stanley and not him.

Examples:

Tom was not invited to Jeremy's party.

Jeremy invited his friend to his party, but did not invite Tom.

OR, the response shows understanding that Tom was afraid that Jeremy would take his place as Stanley's best friend.

Examples:

Tom was jealous of him moving in next to Stanley.

Jeremy took his best friend.

0 – Unacceptable Response

The response does not show understanding of why Tom considered Jeremy his enemy. The response may repeat words from the question, or may provide a vague response that acknowledges that Jeremy moved in next door to Stanley or invited him to his party without showing understanding of the consequence.

Examples:

Jeremy was his enemy.

Jeremy moved in right next door to Tom's best friend.

Jeremy invited Stanley to his party.

Jeremy was new in the neighborhood.

Jeremy was his friend.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Enemy Pie, Item 3

3. Write one ingredient that Tom thought would be in Enemy Pie.

Purpose: Literary

Process: Focus on and Retrieve Explicitly Stated Information

1 – Acceptable Response

The response identifies either (earth)worms or rocks as an ingredient.

NOTE TO SCORERS: Do not credit responses that include ANY incorrect piece(s) of information alongside correct answers.

Answers:

earthworms

worms

rock

0 – Unacceptable Response

The response does not provide either of the ingredients listed above. The response may provide a vague description without mention of a specific ingredient, may name an incorrect ingredient alongside a correct response, or may describe what would happen to someone who ate the pie.

Examples:

rocks and dirt

worms and raspberries

disgusting things

secret ingredients

things that make your hair fall out

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank



Enemy Pie, Item 5

5. How did Tom feel when he first smelled Enemy Pie? Explain why he felt this way.

Purpose: Literary

Process: Make Straightforward Inferences

2 – Complete Comprehension

The response shows understanding that Tom was confused because he thought Enemy Pie was supposed to smell bad, or that Tom was surprised because the pie his dad made (actually) smelled good.

NOTE TO SCORERS: Students may express Tom's confused or surprised feelings in a variety of ways.

Examples:

confused because he thought it was made with disgusting things

He didn't understand. It should taste horrible.

He felt unsure. Enemy Pie should smell bad.

surprised because it smelled really good

1 – Partial Comprehension

The response shows understanding that Tom was confused or surprised when he smelled Enemy Pie for the first time, but does not explain why.

Examples:

confused

He wondered what was going on.

OR, the response explains that Enemy Pie didn't smell the way he thought it would without providing the feeling.

Examples:

Enemy Pie shouldn't smell this good.

He thought the pie would smell bad.

He thought it would smell awful, but it didn't.

0 – No Comprehension

The response does not provide either the appropriate feeling or an explanation.

Examples:

He smelled something really good. (*Please note that this response does not provide a feeling or a clear explanation for why Tom was confused.*)

He felt hungry.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Enemy Pie, Item 6

6. What did Tom think could happen when his enemy ate Enemy Pie? Write one thing.

Purpose: Literary

Process: Focus on and Retrieve Explicitly Stated Information

1 – Acceptable Response

The response identifies one of the consequences of eating Enemy Pie from the list below.

NOTE TO SCORERS: Ignore minor variations in phrasing from the text, as long as it is clear what is intended.

Consequences of Eating Enemy Pie:

His hair would fall out.

His breath would stink.

He would go away.

Something bad would happen./He would get sick (or die).

0 – Unacceptable Response

The response does not provide any of the words or phrases in the list above. The response may repeat words from the question.

Examples:

He might like it.

He would become his friend.

Nothing would happen.

He would become his enemy.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank



Enemy Pie, Item 7

7. What were the two things Tom's dad told Tom to do for Enemy Pie to work?

Purpose: Literary

Process: Focus on and Retrieve Explicitly Stated Information

2 – Complete Comprehension

The response identifies both actions that make Enemy Pie work: 1) spending the day with his enemy, and 2) being nice to him.

NOTE TO SCORERS: Any responses that do not include specific reference to the amount of time that should be spent (a day) should not be credited.

Examples:

- be nice to his enemy for a whole day
- spend the whole day with Jeremy and be nice
- be nice and play with him for a day
- play all day with Jeremy and be friendly

1 – Partial Comprehension

The response provides one action that Tom was told to do by his Dad.

Examples:

- be nice
- spend the day with him
- play and be nice

0 – No Comprehension

The response does not provide an accurate action that Tom was told to do by his Dad.

Examples:

- play with him (*Please note that this is not one of the things Tom's dad told him to do and is too vague to be considered as a paraphrase of either spending the day or being nice.*)
- stop being enemies (*Please note that Tom's dad did not tell him to stop being enemies with Jeremy, nor did he tell him to be his friend.*)
- invite him over for dinner
- eat Enemy Pie

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Enemy Pie, Item 9

9. What surprised Tom about the day he spent with Jeremy?

Purpose: Literary

Process: Make Straightforward Inferences

1 – Acceptable Response

The response shows understanding that Tom had a positive experience with Jeremy. The response may indicate that he enjoyed spending time with Jeremy, that Jeremy wasn't as bad as Tom expected, or that they had become friends.

Examples:

He was actually having fun with Jeremy.

They were getting along.

Jeremy wasn't so bad after all.

Jeremy was nice.

They became friends.

It was a good day.

0 – Unacceptable Response

The response does not accurately describe what surprised Tom.

Examples:

Tom was surprised.

Jeremy was going to eat the Enemy Pie.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank



Enemy Pie, Item 14

14. Use what you have read to explain why Tom's dad really made Enemy Pie.

Purpose: Literary

Process: Interpret and Integrate Ideas and Information

1– Acceptable Response

The response demonstrates understanding that Tom's dad's plan for Enemy Pie was for Tom and Jeremy to become friends.

NOTE TO SCORERS: The response does not need to explicitly state that Tom's dad made them spend time together to be awarded credit.

Examples:

to make them be friends and not enemies

He wanted them to be friends.

to get them to play together and to make them friends

He wanted them to be friends so he got them to play with each other.

to play a trick for Tom to see that Jeremy was nice after all (*Please note that this is an acceptable paraphrase of the boys becoming friends.*)

0 – Unacceptable Response

The response does not provide an appropriate explanation for why Tom's dad really made Enemy Pie. The response may indicate that Tom's dad wanted the boys to spend time together without specific reference to the intended outcome, or it may refer generally to Tom having no enemies without reference to Tom and Jeremy's relationship.

Examples:

He made Tom play with Jeremy.

So they would get to know each other.

He thought it would work and make Jeremy leave.

He made the pie for them all to share.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Enemy Pie, Item 15

15. What kind of person is Tom’s dad? Give an example of what he did in the story that shows this.

Purpose: Literary

Process: Interpret and Integrate Ideas and Information

2 – Complete Comprehension

The response describes one plausible character trait of Tom’s dad that is central to his role in the story (e.g., helpful, caring, nice, good, smart, clever, tricky, secretive). In addition, the response provides one example of Tom’s dad’s actions that is evidence of the character trait.

NOTE TO SCORERS: Traits may be expressed as a longer description, rather than as a single word.

Examples:

He was caring because he wanted to help his son make friends.

He was smart in how he found a way for the boys to like each other.

He was the kind of person who kept secrets. He kept Tom from finding out that Enemy Pie was just a normal pie.

He was nice. He wanted Tom and Jeremy to get along.

Tom’s dad was kind. He thought of a plan for his son to make friends.

1 – Partial Comprehension

The response provides one plausible character trait of Tom’s dad that is central to his role in the story (e.g., helpful, caring, smart, clever, tricky, secretive). Traits may be expressed as a longer description, rather than as a single word.

Examples:

He was caring.

He was nice.

He was a good person.

He was a good dad.

He cared about his son.

He wanted to help Tom.

He was clever. He made a pie. (*Please note that “he made a pie” is not an appropriate example of Tom’s dad’s cleverness.*)

0 – No Comprehension

The response does not provide an appropriate description of Tom’s dad’s character. The response may provide a general character trait of Tom’s dad that is not supported by the text, or a vague description that demonstrates limited comprehension of the story without further textual support.

Examples:

Tom’s dad was mean.

He was confused. (*Please note that this response describes Tom in the story.*)

He was a cook. He baked a pie. (*Please note that “he was a cook” is not a character description.*)



OR, the response may provide an example of Tom’s dad’s actions without providing a character trait.

Examples:

He made Tom think Enemy Pie would work.

He kept the recipe a secret.

He told Tom to play with Jeremy.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student’s control.

9 – Blank

Enemy Pie, Item 16

16. What lesson might you learn from this story?

Purpose: Literary

Process: Examine and Evaluate Content, Language, and Textual Elements

1– Acceptable Response

The response provides an evaluation of the main message or theme of the story that acknowledges the importance of giving a relationship the chance to grow before deciding whether someone is your friend, or indicates that it is possible to change how you feel about someone.

Examples:

Don’t judge someone before you know them.

You can make friends if you give it a chance.

Your enemy can become your friend.

Try to like your enemy. They might become your friend.

0 – Unacceptable Response

The response does not provide a plausible evaluation of the main message or theme of the story. The response may provide a main message that is too general, or may refer to a message that is not central to the story.

Examples:

Be nice to everyone.

You shouldn’t have enemies. (*Please note that this is an inaccurate generalization of the main message.*)

Don’t eat Enemy Pie.

It isn’t nice to exclude someone from your party.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student’s control.

9 – Blank

The GIANT Tooth Mystery

A fossil is the remains of any creature or plant that lived on the Earth many, many years ago. People have been finding fossils for thousands of years in rocks and cliffs and beside lakes. We now know that some of these fossils were from dinosaurs.



Long ago, people who found huge fossils did not know what they were. Some thought the big bones came from large animals that they had seen or read about, such as hippos or elephants. But some of the bones people found were too big to have come from even the biggest hippo or elephant. These enormous bones led some people to believe in giants.



Hundreds of years ago in France, a man named Bernard Palissy had another idea. He was a famous pottery maker. When he went to make his pots, he found many tiny fossils in the clay. He studied the fossils and wrote that they were the remains of living creatures. This was not a new idea. But Bernard Palissy also wrote that some of these creatures no longer lived on earth. They had completely disappeared. They were extinct.

Was Bernard Palissy rewarded for his discovery? No! He was put in prison for his ideas.

As time went by, some people became more open to new ideas about how the world might have been long ago.

Then, in the 1820s, a huge fossil tooth was found in England. It is thought that Mary Ann Mantell, the wife of fossil expert Gideon Mantell was out for a walk when she saw what looked like a huge stone tooth. Mary Ann Mantell knew the big tooth was a fossil, and took it home to her husband.

When Gideon Mantell first looked at the fossil tooth, he thought it had belonged to a plant eater because it was flat and had ridges. It was worn down from chewing food. It was almost as big as the tooth of an elephant. But it looked nothing like an elephant's tooth.



Fossil tooth sketched life-sized

Gideon Mantell could tell that the pieces of rock attached to the tooth were very old. He knew that it was the kind of rock where reptile fossils were found. Could the tooth have belonged to a giant, plant-eating reptile that chewed its food? A type of reptile that no longer lived on earth?

Gideon Mantell was really puzzled by the big tooth. No reptile that he knew about chewed its food. Reptiles gulped their food, and so their teeth didn't become worn down. It was a mystery.

Gideon Mantell took the tooth to a museum in London and showed it to other scientists. No one agreed with Gideon Mantell that it might be the tooth of a gigantic reptile.

Gideon Mantell tried to find a reptile that had a tooth that looked like the giant tooth. For a long time, he found nothing. Then one day he met a scientist who was studying iguanas. An iguana is a large plant-eating reptile found in Central and South America. It can grow to be more than five feet long. The scientist showed Gideon Mantell an iguana tooth. At last! Here was the tooth of a living reptile that looked like the mystery tooth. Only the fossil tooth was much, much bigger.

Iguana

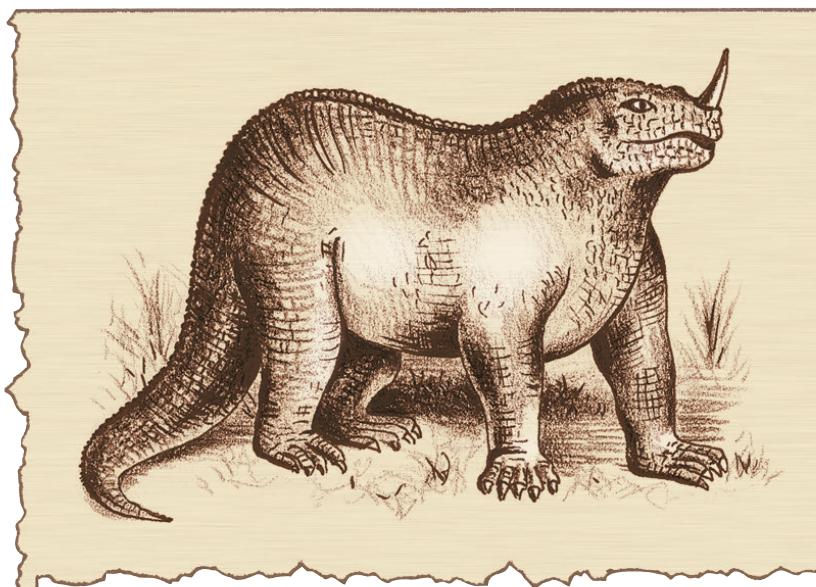
A life-sized drawing of an iguana's tooth from Gideon Mantell's notebook



TIMSS & PIRLS
International Study Center
Lynch School of Education, Boston College

Now Gideon Mantell believed the fossil tooth had belonged to an animal that looked like an iguana. Only it wasn't five feet long. Gideon Mantell believed it was a hundred feet long! He named his creature *Iguanodon*. That means "iguana tooth".

Gideon Mantell did not have a whole *Iguanodon* skeleton. But from the bones he had collected over the years, he tried to figure out what one might have looked like. He thought the bones showed that the creature had walked on all four legs. He thought a pointed bone was a horn. He drew an *Iguanodon* with a horn on its nose.



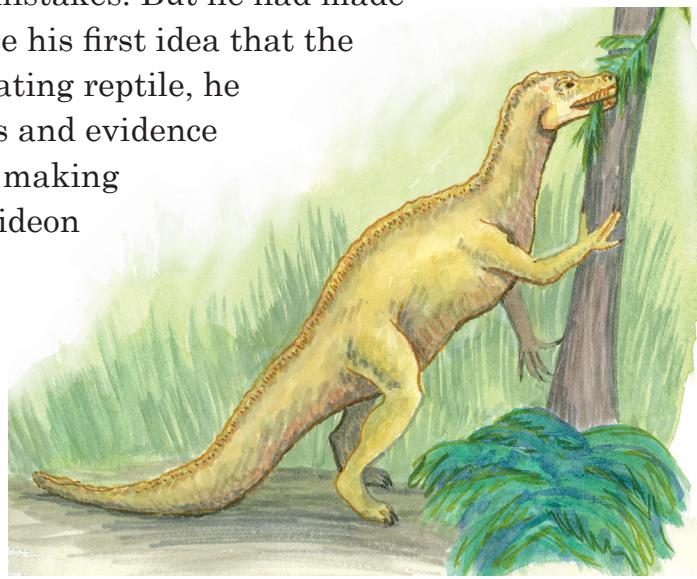
What Gideon Mantell thought an Iguanodon looked like

Years later, several complete *Iguanodon* skeletons were found. They were only about thirty feet long. The bones showed that it walked on its hind legs some of the time. And what Gideon Mantell thought was a horn on its nose was really a spike on its “thumb”! Based on these discoveries, scientists changed their ideas about what the *Iguanodon* looked like.

Gideon Mantell made some mistakes. But he had made an important discovery, too. Since his first idea that the fossil tooth belonged to a plant-eating reptile, he spent many years gathering facts and evidence to prove his ideas were right. By making careful guesses along the way, Gideon Mantell was one of the first people to show that long ago, giant reptiles lived on earth. And then they became extinct.

Hundreds of years before, Bernard Palissy had been thrown in prison for saying nearly the same thing. But Gideon Mantell became famous. His discovery made people curious to find out more about these huge reptiles.

In 1842, a scientist named Richard Owen decided that these extinct reptiles needed a name of their own. He called them *Dinosauria*. This means “fearfully great lizard”. Today we call them dinosaurs.



What scientists today think the *Iguanodon* looked like

Questions The Giant Tooth Mystery

1. What is a fossil?
 - A the surface of rocks and cliffs
 - B the bones of a giant
 - C the remains of very old living things
 - D the teeth of elephants

2. According to the article, why did some people long ago believe in giants?


3. Where did Bernard Palissy find fossils?
 - A on the cliffs
 - B in the clay
 - C by a river
 - D on a path

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4. What was Bernard Palissy's new idea?



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5. Why was Bernard Palissy put into prison?

- (A) People were not open to new ideas.
- (B) He copied his ideas from Gideon Mantell.
- (C) He left tiny fossils in his pottery.
- (D) Studying fossils was forbidden in France.

6. Who found the fossil tooth in England?

- (A) Bernard Palissy
- (B) Mary Ann Mantell
- (C) Richard Owen
- (D) Gideon Mantell



7. What did Gideon Mantell know about reptiles that made the fossil tooth puzzling?
- (A) Reptiles had no teeth.
 - (B) Reptiles were found under rocks.
 - (C) Reptiles lived long ago.
 - (D) Reptiles gulped their food.
8. Gideon Mantell thought the tooth might have belonged to different types of animals. Complete the table to show what made him think this.

Type of animal	What made him think this
A plant eater	The tooth was flat with ridges.
A giant creature	
A reptile	



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(8)
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(9)

9. Why did Gideon Mantell take the tooth to a museum?

- (A) to ask if the fossil belonged to the museum
- (B) to prove that he was a fossil expert
- (C) to hear what scientists thought of his idea
- (D) to compare the tooth with others in the museum

10. A scientist showed Gideon Mantell an iguana tooth. Why was this important to Gideon Mantell?



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(8)
(9)

11. What did Gideon Mantell use when trying to figure out what the *Iguanodon* looked like?

- (A) bones he collected
- (B) ideas from other scientists
- (C) pictures in books
- (D) teeth from other reptiles



12. Look at the two pictures of the *Iguanodon*. What do they help you to understand?



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13. Later discoveries proved that Gideon Mantell was wrong about what the *Iguanodon* looked like. Fill in the blanks to complete the table.

What Gideon Mantell thought the <i>Iguanodon</i> looked like	What scientists today think the <i>Iguanodon</i> looked like
	The <i>Iguanodon</i> walked on four legs.
	The <i>Iguanodon</i> had a spike on its thumb.
	The <i>Iguanodon</i> was 100 feet long.

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(0)
(8)
(9)

(1)
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(1)
(0)
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14. What were found that showed Gideon was wrong about what the *Iguanodon* looked like?

- (A) more fossil teeth
- (B) scientific drawings
- (C) living *Iguanodons*
- (D) whole skeletons



Giant Tooth Mystery, Item 2

2. According to the article, why did some people long ago believe in giants?

Purpose: Acquire and Use Information

Process: Make Straightforward Inferences

1 – Acceptable Response

The response demonstrates understanding that people long ago believed in giants because they found huge bones/skeletons/fossils.

NOTE TO SCORERS: Some students use the word “giant” as a synonym for “big” or “huge”. Such responses should be credited only where the meaning is made clear.

Examples:

They found bones too big to belong to something they knew.

They found giant bones that were too big to be from the biggest hippo.

They found really big bones.

The bones were so big they must be from giants.

0 – Unacceptable Response

The response does not demonstrate understanding that people long ago believe in giants because they found huge bones/skeletons/fossils.

Examples:

Giants are really big.

They found giant bones. (*Please note that the use of “giant” is ambiguous.*)

They found things that must belong to giants.

They found dinosaur bones.

They found bones from giants.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student’s control.

9 – Blank

Giant Tooth Mystery, Item 4

4. What was Bernard Palissy’s new idea?

Purpose: Acquire and Use Information

Process: Interpret and Integrate Ideas and Information

1 – Acceptable Response

The response demonstrates understanding that Palissy’s new idea was that some fossils belonged to animals that no longer lived on earth, had completely disappeared, or were extinct.

Examples:

Fossils could be from extinct animals.

Some belonged to creatures no longer living on earth.

His idea was that some animals had completely disappeared!

0 – Unacceptable Response

The response does not demonstrate understanding of Palissy's new idea. It might relate to Palissy's idea that fossils once belonged to living creatures, or may state a fact about Palissy's work.

Examples:

Fossils were from the remains of living creatures.

Reptiles were extinct.

He found fossils in his clay.

He was a famous pottery maker.

He studied fossils.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Giant Tooth Mystery, Item 8

8. Gideon Mantell thought the tooth might have belonged to different types of animals. Complete the table to show what made him think this.

Type of animal	What made him think this
A plant eater	The tooth was flat with ridges
A giant creature	
A reptile	

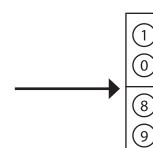
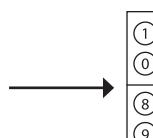
Purpose: Acquire and Use Information

Process: Interpret and Integrate Ideas and Information

NOTE TO SCORERS: Each of the two parts of this item will be scored separately in its own 1-point coding block.

The entire item, with acceptable responses for each of the two parts and the corresponding coding blocks, should look like this:

Type of animal	What made him think this
A plant eater	The tooth was flat with ridges
A giant creature	The response identifies the large size of the fossil tooth (as big as an elephant's tooth)
A reptile	The response indicates that: 1) the rock in which it was found was the kind of rock where reptile fossils were found/it was found where reptiles had lived, OR 2) the fossil tooth was similar to/looked like an iguana/reptile tooth



A GIANT CREATURE

1 – Acceptable Response

The response shows understanding of the characteristics that indicate the fossil tooth could belong to a giant creature.

Type of animal	What made him think this
A plant eater	The tooth was flat with ridges
A giant creature	The response identifies the large size of the fossil tooth (as big as an elephant's tooth)
A reptile	The response indicates that: 1) the rock in which it was found was the kind of rock where reptile fossils were found/it was found where reptiles had lived, OR 2) the fossil tooth was similar to/looked like an iguana/reptile tooth

0 – Unacceptable Response

The response does not show understanding of the characteristics that indicate the fossil tooth could belong to a giant creature. The response may refer to the text at the beginning of the passage about fossils in general, rather than to Gideon's hypotheses about the fossil tooth.

Examples:

Some thought the big bones came from large animals.

It was worn down.

It looked like an elephant's tooth. (*Please note that this is an inaccurate response. The text states, “it looked nothing like an elephant's tooth.”*)

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

A REPTILE

1 – Acceptable Response

The response shows understanding of the characteristics that indicate the fossil tooth could belong to a reptile.

Type of animal	What made him think this
A plant eater	The tooth was flat with ridges
A giant creature	The response identifies the large size of the fossil tooth (as big as an elephant's tooth)
A reptile	The response indicates that: 1) the rock in which it was found was the kind of rock where reptile fossils were found/it was found where reptiles had lived, OR 2) the fossil tooth was similar to/looked like an iguana/reptile tooth

0 – Unacceptable Response

The response does not show understanding of the characteristics that indicate the fossil tooth could belong to a reptile.

Examples:

It eats plants.

Reptiles gulped their food.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Giant Tooth Mystery, Item 10

10. A scientist showed Gideon Mantell an iguana tooth. Why was this important to Gideon Mantell?

Purpose: Acquire and Use Information

Process: Interpret and Integrate Ideas and Information

1 – Acceptable Response

The response demonstrates understanding that the iguana tooth provided evidence that supported Gideon Mantell's theory that the fossil tooth might have belonged to a giant reptile.

Examples:

The iguana tooth showed his fossil could be from a reptile.

It helped him find out what type of animal the tooth belonged to.

The tooth proved he was right.

It gave him proof for what he thought all along.



OR, the response demonstrates a more general understanding that the iguana tooth looked like the fossil tooth.

Examples:

The iguana tooth looked like the fossil tooth.
He could see that they looked the same.
He could tell it was the same one.
He had spent years looking for a matching tooth.
It was flat and had ridges.

0 – Unacceptable Response

The response does not demonstrate understanding of the significance of the iguana tooth.

Examples:

He wanted to be famous.
He thought it would be interesting to see an iguana's tooth.
He wanted to learn more about reptiles.
It showed he was clever. (*Please note that this response is too vague because it focuses on his personal characteristics rather than on his discovery.*)
He wanted to compare the teeth. (*Please note that this response fails to indicate the significance of the comparison.*)

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

Giant Tooth Mystery, Item 12

12. Look at the two pictures of the Iguanodon. What do they help you to understand?

Purpose: Acquire and Use Information

Process: Examine and Evaluate Content, Language, and Textual Elements

2 – Complete Comprehension

The response demonstrates understanding that the pictures show the changes in scientific ideas, or that the pictures show different people's ideas about the Iguanodon.

Examples:

that scientists today think the Iguanodon looked different than Gideon Mantell did
To show how people's ideas about what the Iguanodon looked like changed.
To show that different people had different ideas about what it looked like.
how different the ideas were
Gideon Mantell thought the bones showed the Iguanodon walked on all four legs, but later scientists changed their minds.

OR, the response indicates that the pictures illustrate the mistakes that Gideon Mantell or other people might have made.

Examples:

To show that Gideon got some things wrong.
that people sometimes make mistakes

1 – Partial Comprehension

The response demonstrates a more general understanding that the Iguanodons looked different in the two pictures.

Example:

To show they look different.

OR, the response describes a difference between the two pictures without reference to changes in scientific ideas or what different people might have believed.

Example:

One has 4 legs, the other has 2.

OR, the response provides an explicit reference to one of the pictures without reference to changes in scientific ideas or what different people might have believed.

Example:

That Gideon thought it had a horn.

0 – No Comprehension

The response does not demonstrate understanding of the purpose of the illustrations. The response may describe a specific feature from one of the pictures, or give a description of what the illustrations have in common.

OR, the response may provide an inaccurate interpretation that the Iguanodon itself changed in appearance over time, rather than people's ideas.

Examples:

To show what they looked like.

They help you understand how the Iguanodon changed over the years.

They show me they ate plants.

They had 4 legs.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank



Giant Tooth Mystery, Item 13

13. Later discoveries proved that Gideon Mantell was wrong about what the Iguanodon looked like. Fill in the blanks to complete the table.

What Gideon Mantell thought the Iguanodon looked like	What scientists today think the Iguanodon looked like
The Iguanodon walked on four legs	
	The Iguanodon had a spike on its thumb
The Iguanodon was 100 feet long	

Purpose: Acquire and Use Information

Process: Interpret and Integrate Ideas and Information

NOTE TO SCORERS: Each of the three parts of this item will be scored separately in its own 1-point coding block.

The entire item, with acceptable responses for each of the three parts and the corresponding coding blocks, should look like this:

What Gideon Mantell thought the Iguanodon looked like	What scientists today think the Iguanodon looked like					
The Iguanodon walked on four legs	The Iguanodon (sometimes) walked/stood on two/hind legs	→ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>(1)</td></tr><tr><td>0</td></tr><tr><td>8</td></tr><tr><td>9</td></tr></table>	(1)	0	8	9
(1)						
0						
8						
9						
The Iguanodon had a horn (on its head/face/nose) OR, the spike was on its head/face/nose	The Iguanodon had a spike on its thumb	→ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>(1)</td></tr><tr><td>0</td></tr><tr><td>8</td></tr><tr><td>9</td></tr></table>	(1)	0	8	9
(1)						
0						
8						
9						
The Iguanodon was 100 feet long	The Iguanodon was 30 feet (9 metres) long	→ <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>(1)</td></tr><tr><td>0</td></tr><tr><td>8</td></tr><tr><td>9</td></tr></table>	(1)	0	8	9
(1)						
0						
8						
9						

1 – Acceptable Response

The response shows understanding of the difference in the way that Gideon Mantell and scientists today think the Iguanodon walked or stood.

What Gideon Mantell thought the Iguanodon looked like	What scientists today think the Iguanodon looked like
The Iguanodon walked on four legs	The Iguanodon (sometimes) walked/stood on two/hind legs
The Iguanodon had a horn (on its head/face/nose) OR, the spike was on its head/face/nose	The Iguanodon had a spike on its thumb
The Iguanodon was 100 feet long	The Iguanodon was 30 feet (9 metres) long

0 – Unacceptable Response

The response does not show understanding of the way scientists today think the Iguanodon walked or stood.

Examples:

two

It stood.

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank



1 – Acceptable Response

The response shows understanding of the difference in where Gideon Mantell and scientists today think the Iguanodon had a spike.

What Gideon Mantell thought the Iguanodon looked like	What scientists today think the Iguanodon looked like
The Iguanodon walked on four legs	The Iguanodon (sometimes) walked/stood on two/hind legs
The Iguanodon had a horn (on its head/face/nose) OR, the spike was on its head/face/nose	The Iguanodon had a spike on its thumb
The Iguanodon was 100 feet long	The Iguanodon was 30 feet (9 metres) long

0 – Unacceptable Response

The response does not show understanding of where Gideon Mantell thought the Iguanodon had a spike.

Examples:

horn on its thumb

spike on its back

did not have a spike on its thumb

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

1 – Acceptable Response

The response shows understanding of the difference in what Mantell and scientists today think was the length of the Iguanodon.

What Gideon Mantell thought the Iguanodon looked like	What scientists today think the Iguanodon looked like
The Iguanodon walked on four legs	The Iguanodon (sometimes) walked/stood on two/hind legs
The Iguanodon had a horn (on its head/face/nose) OR, the spike was on its head/face/nose	The Iguanodon had a spike on its thumb
The Iguanodon was 100 feet long	The Iguanodon was 30 feet (9 metres) long

0 – Unacceptable Response

The response does not show understanding of how long scientists today think the Iguanodon was.

Examples:

It was not 100 feet long.

5 feet long

Non-Response Codes

8 – Not administered. Question misprinted, page missing, or other reason out of student's control.

9 – Blank

