

## Close Reading and Text Dependent Questions in Science Found in South Africa: Key Link in Human Evolution (Biology-HS)

The text selection, *Found in South Africa: Key Link in Human Evolution*, can be found at the following link: <http://content.time.com/time/health/article/0,8599,1978726,00.html>

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Look in the Student Learning Outcome (SLO) Documents for guidance on when this should be taught. These can be found on the BPS Science Department's website: <http://bpsscience.weebly.com/> You will find the Student Learning Outcomes documents organized there by grade level.

## Found in South Africa: Key Link in Human Evolution (Biology-HS) Student Questions

1. What words or phrases from the article help the reader understand the meaning of the term *transitional fossil*?
2. According to paragraph 4, why are *Australopithecus sediba* bones so important?
3. What piece of evidence most strongly supports the author's claim, "In the field of human origins, that's huge," in paragraph 6.

4. Choose the sentence that best describes why these findings are transitional fossils.
5. What reason(s) does the author give for why Berger and his colleagues assigned these fossils to the genus *Australopithecus* instead of the genus *Homo*?
6. According to White, scientifically why are Berger’s conclusions risky?
7. In what context is Kimbel using the word “calendar” in paragraph 14?

8. In paragraph 16, why does the author point out that the other bones have been found at the site?

9. Based on the text, why does the author say this fossil find is *contentious* (paragraph 7)?

10. Why did the author begin the article by talking about “Evolution skeptics?”

## Found in South Africa: Key Link in Human Evolution (Biology-HS) Sample Answers

1. **What words or phrases from the article help the reader understand the meaning of the term *transitional fossil*?**

*The phrase that helps the reader understand the term “transitional fossil” is “creatures with a mix of features from earlier and later species”.*

2. **According to paragraph four, why are *Australopithecus sediba* bones so important?**

*Australopithecus sediba are so important because they date back to about 2 million years ago when the genus of human ancestors known as Australopithecus was giving way to a new group called Homo.*

3. **What piece of evidence most strongly supports the author’s claim, “In the field of human origins, that’s huge,” in paragraph 6.**

*The piece of evidence that supports the author’s claim is that even Lee Berger’s rivals praise his discovery. This find has the most complete hominid skeletons ever discovered.*

4. **Choose the sentence that best describes why these findings are transitional fossils.**

*The sentence that best describes why these findings are transitional fossils is “the skeletons show a remarkable mix of primitive and advanced features”.*

5. **What reason(s) does the author give for why Berger and his colleagues assigned these fossils to the genus *Australopithecus* instead of the genus *Homo*?**

*The characteristics are different. The arms are relatively short and ape-like, the hands are apelike in their curvature, and the brain is small which suggests Australopithecus. The more*

*compact hands, longer legs, shortened pelvis, more prominent nose, relatively small molars, and less pronounced cheekbones suggest Homo.*

**6. According to White, scientifically why are Berger's conclusions risky?**

*White thinks that Berger's conclusions about this species are risky because the fossilized boy is young and therefore the skeleton would have still been developing. It is difficult to draw conclusions from a developing skeleton.*

**7. In what context is Kimbel using the word calendar in paragraph 14?**

*The word "calendar" refers to the idea that the fossils show a pace of change over time.*

**8. In paragraph 16, why does the author point out that the other bones have been found at the site?**

*The author points this out because the other bones allow the team to speculate more about the environment and/or animals of that time period.*

**9. Based on the text, why does the author say this fossil find is *contentious* (paragraph 7)?**

*The find is contentious because there is disagreement about whether the fossils are more ape-like or more modern. There is disagreement as to where it fits in the evolutionary timeline.*

**10. Why did the author begin the article by talking about "Evolution skeptics"?**

*The author asks students to infer. The author wanted to inform the reader that there are differing opinions about the theory of evolution as well as describe what information skeptics would like to see in order to believe in the theory of evolution.*