

NEWS BREAK

Sunday's News Break selects an article from Sunday, March 13, 2016 of The Seattle Times e-Edition for an in-depth reading of the news. Read the selected story and answer the attached study questions.

European probe to study Mars gases, dust storms (Main News, page A17)

Pre-Reading and Vocabulary

1. Why is it important to study other planets? What do you know about the planet Mars?
Why do you think it would be important to study the gases on Mars and dust storms?
2. **Vocabulary: Match the words to the numbered definitions below.**

- A. altitude
- B. atmosphere
- C. broadcast
- D. collaboration
- E. conclusion
- F. decelerate
- G. definitive
- H. intriguing
- I. methane
- J. objective
- K. orbiter
- L. origin
- M. tenuous
- N. trace

1. to send out (signals, programs, etc.) by radio or television
2. a colorless gas that has no smell and that can be burned for fuel
3. the source or cause of something
4. to move slower ; to lose speed
5. something you are trying to do or achieve; a goal or purpose
6. extremely interesting; fascinating
7. the height of an object or point in relation to sea level or ground level
8. a very small amount of something
9. not able to be argued about or changed; final and settled
10. to work with another person or group in order to achieve or do something
11. not certain, definite, or strong; flimsy, weak, or uncertain
12. a mass of gases that surround a planet or star
13. an opinion or decision that is formed after a period of thought or research
14. a vehicle or device that travels around a planet or moon in space

Comprehension

1. The ExoMars 2016 is a collaboration between which two space agencies?

2. The spacecraft which will consist of an orbiter and a lander is expected to lift off on Monday. How will coverage of the launch be broadcast?
3. How many months will it take the ExoMars spacecraft take to reach Mars?
4. What will the orbiter measure on Mars?
5. What will the lander be studying on Mars?
6. What is the main objective of the lander, named the Schiaparelli, is to demonstrate what?
7. How long are the batteries on the lander expected to last?
8. The orbiter is expected to operate much longer than the lander – **true or false?**
9. On a previous mission, the Mars Express made tenuous detections of methane gas but its instruments were not sensitive enough for _____. **(Fill in the blanks)**
10. According to the article, measuring gases, such as methane, water vapor, and nitrogen, that exist in minute quantities could hold important clues about the possibility of what?

Additional Activities

1. Have students visit the NASA Mars website at: <http://mars.nasa.gov/allaboutmars/facts/> where they can learn how Mars compares to Earth. Have students write down two interesting facts they learned about Mars that they didn't know before.
2. Have students watch the following video report about the Curiosity rover's three year mission to Mars at: <http://mars.nasa.gov/multimedia/videos/?v=288>

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Answer Key to Vocabulary

- A. 7
- B. 12
- C. 1
- D. 10
- E. 13
- F. 4
- G. 9
- H. 6
- I. 2
- J. 5
- K. 14
- L. 3
- M. 11
- N. 8

Answer Key to Comprehension Questions

- 1. It is a collaboration between the European and Russian space agencies.
- 2. It will be broadcast on the internet.
- 3. It will take the ExoMars seven months to reach Mars.
- 4. The orbiter will measure gases on Mars.
- 5. The lander will be studying dust storms.
- 6. The main objective of the lander is to demonstrate its landing system.
- 7. They are expected to last only two to four days.
- 8. True
- 9. definitive conclusions
- 10. The possibility of life on Mars.