

Student Name _____ Date _____

IT'S ABOUT TIME!

Many words in our language are used to measure time. Some are familiar and some are strange. Read over the words and definitions – and then you will be transported in time to some unusual problems about time! Write your answers in complete sentences on another piece of paper. Go now – hurry, before someone sees you!

Second: a short time, $1/60^{\text{th}}$ of a minute

Minute: a unit of time equal to 60 seconds

Hour: a unit of time equal to 60 minutes

Day: one period from sunrise to sunrise, or sunset to sunset, or midnight to midnight, equal to 24 hours

Week: 7 days

Fortnight: 2 weeks

Score: a set of twenty

Month: an irregular unit of time; there are 12 months in a year, months were originally based on full moon to full moon. Now some have 28 days and others have 31.

Year: a unit of time based on the Earth's orbit of the sun; it equals $365 \frac{1}{4}$ days, 52 weeks, or 12 months

Decade: 10 years

Century: 100 years

Millennium: 1000 years

Era: a period of time measured from some important event

Eon: an extremely long period of time, many thousands of years; greater than an era.

Annually: every year

Monthly: every month

Now, ready for some time travel?

1. Let's go back to November 13, 1863. We are in Pennsylvania to hear a speech by the President. Do you know which president? Well, never mind. We are here to check his math. He starts his speech by saying "Four score and seven years ago our fathers brought forth on this continent a new nation..." He is probably referring to 1776 when the Declaration of Independence was signed. Was his math right? Was it four score and seven years after the Declaration? Check it out.

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2. Let's now go to the year 1961. The President, a different one, is stating that he wants to land a man on the Moon "before this decade is out". Let us now fast forward to 1969 when Neil Armstrong stepped out onto the surface of the moon. Did he make the President's deadline? Which President was it?

3. If we travel back to see the creation of the Marshall Space Flight Center in 1960, how many scores of years will we need to travel back?

4. Talking about centuries, here's a concept for you. The first century was the years 1 - 100. The second century was the years 101 - 200. The thirteenth century was the years 1201 - 1300. The twentieth century was the years 1901 - 2000. In 1892, Percival Lovell announced that Martians had built canals on their planet. What century was this?

5. Let's travel forward one century after the 1996 landing of the Pathfinder to see how it is being celebrated. What year will it be? Shall we go to Earth or Mars?

6. The Viking lander/orbiter missions landed on Mars in 1976. The Pathfinder lander/surface rover was launched toward the red planet in December 1996. How many decades later was the second lander mission launched.

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7. Let's travel forward to the fourth decade of the third millennium. What year is it?

8. If you wanted to travel back in time four centuries you could meet Galileo! What year would it be?

9. How many weeks are in a decade? In a century?

10. Let's move forward in time one fortnight. What will the date be? Where will you be?

11. The Mars Global Surveyor has been in a Martian orbit, mapping the surface of Mars, since March 1998. In June of 2000, scientists announced that the pictures taken by the Mars Global Surveyor suggest that there may be water near the surface. How many months had the surveyor been taking pictures of the red planet before scientists made that announcement?

12. Now for a tough question: how many days had the Surveyor been taking pictures if it started taking pictures on March 1, 1998—and the announcement was made June 22, 2000?

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13. Pathfinder landed at 4:56:55 (you read this as “4 hours, 56 minutes and 55 seconds”) Universal Time (UT) on July 4, 1997. The air bags inflated in 10 seconds before landing – so what time was that? Then it rolled for two minutes and 30 seconds. SO: to what time would we need to travel if we wanted to see the Pathfinder right after it stopped?

14. We want to travel forward to the celebration of 9 decades of your life, the birthday party. What would the date be? How many months would you have lived? What great historical event might you have seen?