

NAME: _____

DATE: _____

SPACE

Question: *How old will you be in 2029? How old will you be in 2036?*



- Complete the paragraph on the right with the words on the left.



Apophis – Killer Asteroid?

How old will you be on Friday 13, 2029? That is how old you will be when a large asteroid comes very close to our planet. Asteroids are (1)_____ that circle the sun in space and sometimes come close to (2)_____ and even hit it. Most asteroids are very small, and you can sometimes see them as (3) “_____”. Because they are so tiny, they do little or no damage to our planet. However, most scientists believe one large asteroid, about 6 to 12 kilometers across, hit the Earth and killed all the (4)_____ about 65 million years ago. Apophis is also big. Scientists (5)_____ it in 2004 and they say that it is about 300 meters across, large enough to (6)_____ several cities. Most scientists think that it will (7)_____ us by only 35,000 kilometers – that’s closer than our (8)_____ which is about 240,000 kilometers away. But they are not 100% sure. And the same scientists say that it will (9)_____ to Earth on April 13, 2036. Will Apophis miss us again in 2036? Or will it (10)_____ us? Again, no one is sure. The only sure thing is that all the eyes and (11)_____ in every country of the world will be watching the night (12)_____ on April 13, 2029, and on April 13, 2036.

- D** destroy *v.*
dinosaurs *n.*
discovered *v.*
- E** Earth *n.*
- F** falling stars *n.*
- H** hit *v.*
- M** miss *v.*
moon *n.*
- R** return *v.*
rocks *n.*
- S** sky *n.*
- T** telescopes *n.*

(about 200 words)

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Apophis – Killer Asteroid?



Vocabulary Practice

- *Match the words on the left with the meanings on the right.*

- | | | |
|-----------------|----------|--|
| 1. asteroid | <u>F</u> | A. an animal that lived on Earth millions of years ago |
| 2. destroy | _____ | B. to come back again |
| 3. discover | _____ | C. to hurt something so badly that it cannot be repaired |
| 4. dinosaur | _____ | D. a long tube that lets you see things far away |
| 5. falling star | _____ | E. to see or find something for the first time |
| 6. miss | _____ | F. any small or large rock that goes around our sun |
| 7. return | _____ | G. the opposite meaning of 'hit' |
| 8. telescope | _____ | H. a small burning rock that falls from space |

How Much Do You Understand?

- *Write 'T' (True) or 'F' (False) next to each statement.*

1. F The paragraph is about how all the dinosaurs died 65 million years ago.
2. _____ Falling stars are very dangerous.
3. _____ Apophis will be much closer to our planet than our moon is.
4. _____ Apophis is about 6 to 12 kilometers across.
5. _____ Scientists say that an asteroid will hit the Earth in 2029 or 2036.
6. _____ Most people will probably be interested in this news in 2029 or 2036.

Discuss

- *Ask and answer the following questions with your classmates.*

1. How does this reading make you feel? Why?
2. Have you ever seen a falling star? Where? When?
3. Do you plan to do anything special to prepare for 2029 or 2036?
4. In addition to asteroids, what other dangers threaten our planet?

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Grammar Check

- Complete the paragraph by circling the correct words.

How old will you be on Friday 13, 2029? That is how old you will be when a large asteroid (1) _____ very close to our planet. Asteroids are (2) _____ that circle the sun in space and sometimes come close to Earth and even hit it. Most asteroids (3) _____ small, and you can sometimes see them as “falling stars”. Because they are so tiny, they do little or no damage to our planet. However, most (4) _____ believe one large asteroid, about 6 (5) _____ 12 kilometers across, hit the Earth and (6) _____ all the dinosaurs about 65 million years ago. Apophis is also big. Scientists discovered it in 2004 and they (7) _____ that it is about 300 meters across, large enough to destroy several cities. Most scientists (8) _____ that it will miss us by only 35,000 kilometers – that’s (9) _____ than our moon which is about 240,000 kilometers away. But they are (10) _____ 100% sure. And the same scientists say that it (11) _____ to Earth on April 13, 2036. Will Apophis miss us again in 2036? Or will it hit us? Again, no one is sure. The only sure thing is that all the eyes and telescopes (12) _____ every country of the world will be watching the night sky on April 13, 2029, and on April 13, 2036.

1.

- (A) come
- (B) comes
- (C) coming
- (D) is come

2.

- (A) rocky
- (B) rock
- (C) rocks
- (D) rockets

3.

- (A) are very
- (B) very
- (C) is very
- (D) be very

4.

- (A) scientists
- (B) science
- (C) scientist
- (D) scientific

5.

- (A) and
- (B) until
- (C) between
- (D) to

6.

- (A) was kill
- (B) kills
- (C) killed
- (D) was killing

7.

- (A) are say
- (B) says
- (C) say
- (D) were say

8.

- (A) thought
- (B) think
- (C) are think
- (D) thinks

9.

- (A) closest
- (B) close
- (C) is close
- (D) closer

10.

- (A) no
- (B) don't
- (C) not
- (D) doesn't

11.

- (A) does return
- (B) return
- (C) returned
- (D) will return

12.

- (A) in
- (B) on
- (C) for
- (D) to

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Apophis – Killer Asteroid?

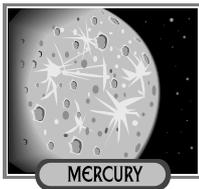


Writing Practice 1

- Listen to your teacher and complete the paragraph.

How will you be on Friday 13, 2029? That is _____ old you
_____ be when a _____ asteroid comes very _____ to our
planet. Asteroids are _____ that circle the sun in space and
_____ come close to Earth and even _____ it. Most asteroids
_____ small, and you can _____ see them as “falling
stars”. _____ they are so tiny, they do little or no _____ to our
planet. _____, most _____ believe one large asteroid, about 6
_____ 12 kilometers _____, hit the Earth and _____ all the
dinosaurs _____ 65 million years ago. Apophis is also _____.
Scientists _____ it in 2004 and they _____ it is about
300 _____ across, large _____ to _____ several _____.
Most scientists _____ that it will _____ us by only 35,000
kilometers – that’s _____ our moon _____ is _____
240,000 kilometers away. But they _____ 100% sure.
_____ the _____ scientists _____ that it _____ to
Earth _____ April 13, 2036. _____ Apophis _____
_____ in 2036? Or _____ us? _____, no
_____ is _____. _____ sure _____
_____ all _____ and _____
country _____ watching
_____ sky _____ 13, 2029, _____
_____ 13, 2036.

The Eight Planets of our Solar System



Name: Mercury	Distance to sun: about 58 million km
Moons: none	Diameter: 4,879 km at the equator

- **Mercury** is the planet in our solar system that is closest to our sun. Named after the Roman god Mercury who was the messenger to the gods, it is the smallest planet, and is very difficult to see because it is so close to the sun.



Name: Venus	Distance to sun: about 108 million km
Moons: none	Diameter: 12,100 km at the equator

- **Venus** is sometimes called our “sister planet” because it is nearly the same size as Earth, and it is closest to us. Second from the sun, it is named after the Roman goddess of love. It often appears very bright in the early morning sky.



Name: Earth	Distance to sun: about 150 million km
Moons: one	Diameter: 12,756 km at the equator

- **Earth** is the only planet that we know of, so far, that has life. It also has the solar system’s largest moon. Three quarters of the planet is covered by oceans. Over 7 billion people live on Earth in about 200 countries.



Name: Mars	Distance to sun: about 228 million km
Moons: two	Diameter: 6,792 km at the equator

- **Mars** is smaller than both Venus and Earth, but has the solar system’s largest volcano. Named after the Roman god of war (because of its blood-red color), many scientists believe that humans will travel to Mars this century.



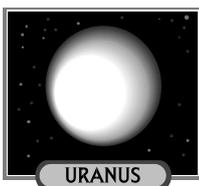
Name: Jupiter	Distance to sun: about 778 million km
Moons: 60 - 70	Diameter: 142,984 km at the equator

- **Jupiter** is the largest planet in our solar system, and the third brightest object in the night sky. Named after the king of the Roman gods in mythology, Jupiter (along with Saturn, Uranus, and Neptune) is known as a “gas giant”.



Name: Saturn	Distance to sun: about 1.4 billion km
Moons: 60 - 70	Diameter: 120,536 km at the equator

- **Saturn**, the sixth planet from the sun, and the second largest planet, is special because of its rings (some other planets have them, but Saturn’s are largest). It is named after the Roman god of agriculture (as is ‘Saturday’).



Name: Uranus	Distance to sun: about 2.88 billion km
Moons: 27 (maybe more)	Diameter: 51,118 km at the equator

- **Uranus** was only ‘recently’ discovered by Englishman William Herschel in 1781. The planet was first named after King George III of England, but the name was later changed to ‘Uranus’ (after the Greek god of the sky).



Name: Neptune	Distance to sun: about 4.5 billion km
Moons: 13 (maybe more)	Diameter: 49,528 km at the equator

- **Neptune** is the furthest planet from the sun (although small ‘dwarf planets’ such as Pluto are even more distant). Discovered by French and English astronomers in 1846, it is named after the Greek god of the sea.

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Reading Plus⁺

'The Eight Planets of our Solar System'



● **VOCABULARY: Match the words with their meanings.**

- | | | | |
|-----------------|----------|----|--|
| 1. solar system | <u>B</u> | A. | how far away something is from another thing |
| 2. distance | _____ | B. | the sun and all its planets |
| 3. diameter | _____ | C. | 1,000,000,000 |
| 4. billion | _____ | D. | how far from one side to the other |

● **COMPREHENSION #1: Write 'T' (True) or 'F' (False) next to each statement.**

1. F Earth is our solar system's largest planet.
2. _____ Uranus is larger than Neptune.
3. _____ Jupiter is the third planet from the sun.
4. _____ Mercury has two moons.
5. _____ Saturn is the only planet that has rings.
6. _____ Earth is mostly covered by water.
7. _____ Neptune was discovered by French and German astronomers in 1846.

● **COMPREHENSION #2: Answer the questions below.**

1. How many planets don't have a moon? _____
2. Which day of the week is named after a planet? _____
3. Which planet is not named after a Roman or Greek god? _____
4. What is an example of a 'dwarf planet'? _____
5. Which planet has the largest moon? _____
6. Which planet is the smallest? _____
7. Which planet was first named after a person? _____

● **DISCUSS: Now ask your classmates these questions ...**

Imagine you discovered a new planet. What name would you give it? Why?

Grammar Focus Past, Present and Future Tenses

Level Intermediate to Upper-Intermediate

Time Approximately 120 – 180 minutes

'Apophis' ANSWER KEY:

● Complete the Paragraph

1. rocks
2. Earth
3. falling stars
4. dinosaurs
5. discovered
6. destroy
7. miss
8. moon
9. return
10. hit
11. telescopes
12. sky

● Vocabulary Practice

- | | |
|------|------|
| 1. F | 5. H |
| 2. C | 6. G |
| 3. E | 7. B |
| 4. A | 8. D |

● How Much Do You Understand?

1. F (It is about the asteroid 'Apophis'.)
2. F (Falling stars do little damage.)
3. T
4. F (It is about 300 meters across)
5. F (No one is 100% sure.)
6. T

● Grammar Check

- | | | |
|------|------|-------|
| 1. B | 5. D | 9. D |
| 2. C | 6. C | 10. C |
| 3. A | 7. C | 11. D |
| 4. A | 8. B | 12. A |

'Eight Planets' ANSWER KEY:

● VOCABULARY

- | | |
|------|------|
| 1. B | 3. D |
| 2. A | 4. C |

● COMPREHENSION #1

- | | | |
|------|------|------|
| 1. F | 4. F | 6. T |
| 2. T | 5. F | 7. F |
| 3. F | | |

● COMPREHENSION #2

- | | | |
|-----------|----------|------------|
| 1. two | 4. Pluto | 6. Mercury |
| 2. Saturn | 5. Earth | 7. Uranus |
| 3. Earth | | |

● Homework Idea

Have your students write a descriptive or opinion paragraph (see worksheet).

EXPLORE on-line:

<http://www.universetoday.com/36697/the-asteroid-that-killed-the-dinosaurs/>

http://en.wikipedia.org/wiki/99942_Apophis

<http://www.youtube.com/watch?v=2wjE35EWfto>

<http://news.nationalgeographic.com/news/2008/04/080410-sea-meteorites.html>

<http://earthsky.org/space/asteroid-apophis-due-to-pass-close-in-2029>