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"1,000 IDEAS & ACTIVITIES FOR LANGUAGE TEACHERS"

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The chicken came before the egg

http://www.breakingnewsenglish.com/1007/100716-chicken_or_the_egg_mystery.html

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THE ARTICLE

From http://www.BreakingNewsEnglish.com/1007/100716-chicken_or_the_egg_mystery.html

Which came first, the chicken or the egg? This is one of life's oldest questions and everyone has their own opinion. Now scientists believe they have cracked it and have unscrambled this mystery. Researchers from Sheffield and Warwick Universities in England discovered the answer by mistake. They used a super computer to zoom in on the shell-making process while a new shell was forming. They said it all boils down to one protein called OC17 that is essential for forming eggshell. This is only found inside a chicken's ovaries, which is proof that the chicken came first. The team was originally looking at how animals and birds make eggshells but suddenly made their surprising discovery. The big question now is where chickens came from. The answer to that is from dinosaurs.

The research team said eggshells are one of nature's most amazing creations. Professor John Harding from Sheffield University told reporters: "Understanding how chickens make eggshells is fascinating in itself but can also give clues towards designing new materials and processes." Eggshells are very lightweight but incredibly strong. The most cutting-edge materials designed by the world's top engineers cannot produce anything as brilliant as an eggshell. Professor Harding added that studying eggshells could help find new answers to bone-healing processes and materials used by the construction industry: "Nature has found innovative solutions that work for all kinds of problems in materials science and technology -- we can learn a lot from them," he said.

WARM-UPS

1. CHICKENS AND EGGS: Walk around the class and talk to other students about chickens and eggs. Change partners often. Sit with your first partner(s) and share your findings.

2. CHAT: In pairs / groups, decide which of these topics or words from the article are most interesting and which are most boring.

chickens / eggs / opinions / mysteries / zoom in / protein / eggshells / discoveries / amazing creations / fascinating / new materials / cutting-edge / brilliant / construction

Have a chat about the topics you liked. Change topics and partners frequently.

3. LIFE'S MYSTERIES: What do you think? Complete this table and show it to your partner(s). Change partners and share what you heard. Change and share again.

Mystery	Your answer
Why are we here?	
Are there aliens?	
Why are there poor people?	
What happened to the dinosaurs?	
Do we have a 6 th sense?	
Why is English so hard?	

4. CHICKEN OR EGG?: Students A **strongly** believe the chicken came before the egg; Students B **strongly** believe the egg came before the chicken. Change partners again and talk about your conversations.

5. QUESTIONS: What questions would you love to know the answer to? Think of questions for the following. Talk to your partner(s) about possible answers.

- eggs
- life
- your family
- English
- your country's leader
- money
- technology
- famous people

6. EGG: Spend one minute writing down all of the different words you associate with the word 'egg'. Share your words with your partner(s) and talk about them. Together, put the words into different categories.

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BEFORE READING / LISTENING

From http://www.BreakingNewsEnglish.com/1007/100716-chicken_or_the_egg_mystery.html

1. TRUE / FALSE:

Read the headline. Guess if a-h below are true (T) or false (F).

- | | |
|---|-------|
| a. The question of whether the chicken or egg came first is a new one. | T / F |
| b. Scientists have found a way to unscramble scrambled eggs. | T / F |
| c. There is a single protein that is vital to make eggshells. | T / F |
| d. The scientists were not looking at if the chicken or egg came first. | T / F |
| e. The article says egg yolks are an amazing creation of nature. | T / F |
| f. A professor says eggshells can teach us about materials design. | T / F |
| g. The article says the cutting edge of an eggshell is razor sharp. | T / F |
| h. Eggshells can teach scientists about how bones heal. | T / F |

2. SYNONYM MATCH:

Match the following synonyms from the article.

- | | |
|-----------------|----------------|
| 1. opinion | a. modern |
| 2. unscrambled | b. evidence |
| 3. forming | c. answers |
| 4. proof | d. making |
| 5. originally | e. interesting |
| 6. amazing | f. belief |
| 7. fascinating | g. astonishing |
| 8. clues | h. at first |
| 9. cutting-edge | i. answered |
| 10. solutions | j. hints |

3. PHRASE MATCH:

(Sometimes more than one choice is possible.)

- | | |
|---------------------------------|-------------------------|
| 1. This is one of life's | a. shell-making process |
| 2. Now scientists believe they | b. solutions |
| 3. zoom in on the | c. amazing creations |
| 4. it all boils down | d. have cracked it |
| 5. suddenly made their | e. is fascinating |
| 6. one of nature's most | f. materials |
| 7. how chickens make eggshells | g. oldest questions |
| 8. the most cutting-edge | h. healing processes |
| 9. find new answers to bone- | i. to one protein |
| 10. Nature has found innovative | j. surprising discovery |

WHILE READING / LISTENING

From http://www.BreakingNewsEnglish.com/1007/100716-chicken_or_the_egg_mystery.html

GAP FILL: Put the words into the gaps in the text.

Which came first, the chicken or the egg? This is one of _____ oldest questions and everyone has their own _____. Now scientists believe they have cracked it and have unscrambled this _____. Researchers from Sheffield and Warwick Universities in England discovered the answer by mistake. They used a super computer to _____ in on the shell-making process while a new shell was forming. They said it all _____ down to one protein called OC17 that is essential for forming eggshell. This is only found inside a chicken's ovaries, which is _____ that the chicken came first. The team was originally looking at how animals and birds make eggshells but suddenly made their surprising _____. The big question _____ is where chickens came from. The answer to that is from dinosaurs.

proof
zoom
opinion
now
boils
life's
discovery
mystery

The _____ team said eggshells are one of nature's most amazing _____. Professor John Harding from Sheffield University told reporters: "Understanding how chickens make eggshells is fascinating in _____ but can also give clues towards designing new materials and processes." Eggshells are very lightweight but _____ strong. The most cutting-edge materials designed by the world's top engineers cannot produce anything as _____ as an eggshell. Professor Harding added that studying eggshells could help find new answers to bone-healing _____ and materials used by the construction industry: "Nature has found innovative solutions that work for all _____ of problems in materials science and technology -- we can _____ a lot from them," he said.

incredibly
itself
kinds
learn
research
processes
creations
brilliant

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LISTENING – Listen and fill in the gaps

From http://www.BreakingNewsEnglish.com/1007/100716-chicken_or_the_egg_mystery.html

Which came first, the chicken or the egg? _____ oldest questions and everyone _____. Now scientists believe they have cracked it and have unscrambled this mystery. Researchers from Sheffield and Warwick Universities in England discovered the answer by mistake. They used a super computer to _____ - making process while a new shell was forming. They said it all boils down to one protein called OC17 that is _____ eggshell. This is only found inside a chicken's ovaries, which is proof that the chicken came first. The team was _____ animals and birds make eggshells but suddenly _____. The big question now is where chickens came from. The answer to that is from dinosaurs.

The research team said eggshells _____ amazing creations. Professor John Harding from Sheffield University told reporters: "Understanding how chickens make eggshells _____ but can _____ designing new materials and processes." Eggshells are very lightweight but incredibly strong. _____ materials designed by the world's top engineers cannot produce anything as brilliant as an eggshell. Professor Harding added that studying eggshells could help find new _____ processes and materials used by the construction industry: "Nature has _____ that work for all kinds of problems in materials science and technology -- we can learn a lot from them," he said.

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AFTER READING / LISTENING

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1. WORD SEARCH: Look in your dictionary / computer to find collocates, other meanings, information, synonyms ... for the words 'chicken' and 'egg'.

chicken	egg
----------------	------------

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

2. ARTICLE QUESTIONS: Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

3. GAP FILL: In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning...?

4. VOCABULARY: Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

5. TEST EACH OTHER: Look at the words below. With your partner, try to recall how they were used in the text:

<ul style="list-style-type: none">• life's• unscrambled• mistake• protein• originally• dinosaurs	<ul style="list-style-type: none">• amazing• fascinating• clues• edge• bone• nature
---	--

STUDENT CHICKENS AND EGGS SURVEY

From http://www.BreakingNewsEnglish.com/1007/100716-chicken_or_the_egg_mystery.html

Write five GOOD questions about chickens and eggs in the table. Do this in pairs. Each student must write the questions on his / her own paper. When you have finished, interview other students. Write down their answers.

	STUDENT 1 _____	STUDENT 2 _____	STUDENT 3 _____
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

CHICKENS AND EGGS DISCUSSION

STUDENT A's QUESTIONS (Do not show these to student B)

- a) What did you think when you read the headline?
- b) What springs to mind when you hear the word 'mystery'?
- c) Do you think the chicken came before the egg?
- d) Why is it that which one came first is such a mystery?
- e) What part do eggs play in your life?
- f) What other questions in life would you like answered?
- g) Is it important to know which one came first?
- h) What was the last surprising discovery you made?
- i) When was the last time you thought, "I've cracked it"?
- j) Where did dinosaurs come from?

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CHICKENS AND EGGS DISCUSSION

STUDENT B's QUESTIONS (Do not show these to student A)

- a) Did you like reading this article?
- b) What do you think is nature's most amazing creation?
- c) Do you think understanding how chickens make eggshells is fascinating?
- d) What three things do you think are interesting about eggshells?
- e) Why are eggshells so strong?
- f) How do you think studying eggshells can help engineers?
- g) What innovative solutions in nature do you know of?
- h) How do you like your eggs done and why?
- i) What other mysteries are there in life?
- j) What questions would you like to ask Professor John Harding?

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LANGUAGE – MULTIPLE CHOICE

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Which came first, the chicken or the egg? This is one of life's oldest questions and everyone has their own opinion. Now scientists believe they have (1) _____ it and have unscrambled this mystery. Researchers from Sheffield and Warwick Universities in England discovered the answer (2) _____ mistake. They used a super computer to zoom (3) _____ on the shell-making process while a new shell was forming. They said it all (4) _____ down to one protein called OC17 that is essential for forming eggshell. This is only found inside a chicken's ovaries, which is (5) _____ that the chicken came first. The team was originally looking at how animals and birds make eggshells but suddenly (6) _____ their surprising discovery. The big question now is where chickens came from. The answer to that is from dinosaurs.

The research team said eggshells are one of nature's most (7) _____ creations. Professor John Harding from Sheffield University told reporters: "Understanding how chickens make eggshells is fascinating in (8) _____ but can also (9) _____ clues towards designing new materials and processes." Eggshells are very lightweight but incredibly strong. The most (10) _____ -edge materials designed by the world's top engineers cannot produce anything as brilliant as an eggshell. Professor Harding added that studying eggshells could help find new answers to bone-(11)_____ processes and materials used by the construction industry: "Nature has found (12) _____ solutions that work for all kinds of problems in materials science and technology -- we can learn a lot from them," he said.

Put the correct words from the table below in the above article.

- | | | | | |
|-----|----------------|----------------|------------------|---------------|
| 1. | (a) smashed | (b) cracked | (c) punched | (d) pounded |
| 2. | (a) on | (b) for | (c) by | (d) at |
| 3. | (a) in | (b) out | (c) up | (d) from |
| 4. | (a) bubbles | (b) stews | (c) simmers | (d) boils |
| 5. | (a) proven | (b) proves | (c) proof | (d) proofs |
| 6. | (a) made | (b) was | (c) did | (d) happened |
| 7. | (a) amazes | (b) amazement | (c) amazed | (d) amazing |
| 8. | (a) himself | (b) itself | (c) myself | (d) oneself |
| 9. | (a) take | (b) do | (c) be | (d) give |
| 10. | (a) sawing | (b) hacking | (c) cutting | (d) slicing |
| 11. | (a) healer | (b) healing | (c) heals | (d) healed |
| 12. | (a) innovative | (b) innovation | (c) innovatively | (d) innovates |

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HOMework

1. VOCABULARY EXTENSION: Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.

2. INTERNET: Search the Internet and find out more about this new discovery. Share what you discover with your partner(s) in the next lesson.

3. MYSTERY: Make a poster about one of the world's mysteries. Show your work to your classmates in the next lesson. Did you all have similar things?

4. CHICKEN AND EGG: Write a magazine article about chickens, eggs, and which came first. Include imaginary interviews with someone who believes chickens came first and someone who believes eggs came first.

Read what you wrote to your classmates in the next lesson. Write down any new words and expressions you hear from your partner(s).

5. LETTER: Write a letter to a scientist. Ask him/her three questions about chickens and eggs. Give him/her three opinions on which came first. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

TRUE / FALSE:

- a. F b. F c. T d. T e. F f. T g. F h. T

SYNONYM MATCH:

- | | |
|-----------------|----------------|
| 1. opinion | a. belief |
| 2. unscrambled | b. answered |
| 3. forming | c. making |
| 4. proof | d. evidence |
| 5. originally | e. at first |
| 6. amazing | f. astonishing |
| 7. fascinating | g. interesting |
| 8. clues | h. hints |
| 9. cutting-edge | i. modern |
| 10. solutions | j. answers |

PHRASE MATCH:

- | | |
|---------------------------------|-------------------------|
| 1. This is one of life's | a. oldest questions |
| 2. Now scientists believe they | b. have cracked it |
| 3. zoom in on the | c. shell-making process |
| 4. it all boils down | d. to one protein |
| 5. suddenly made their | e. surprising discovery |
| 6. one of nature's most | f. amazing creations |
| 7. how chickens make eggshells | g. is fascinating |
| 8. the most cutting-edge | h. materials |
| 9. find new answers to bone- | i. healing processes |
| 10. Nature has found innovative | j. solutions |

GAP FILL:

The chicken came before the egg

Which came first, the chicken or the egg? This is one of **life's** oldest questions and everyone has their own **opinion**. Now scientists believe they have cracked it and have unscrambled this **mystery**. Researchers from Sheffield and Warwick Universities in England discovered the answer by mistake. They used a super computer to **zoom** in on the shell-making process while a new shell was forming. They said it all **boils** down to one protein called OC17 that is essential for forming eggshell. This is only found inside a chicken's ovaries, which is **proof** that the chicken came first. The team was originally looking at how animals and birds make eggshells but suddenly made their surprising **discovery**. The big question **now** is where chickens came from. The answer to that is from dinosaurs.

The **research** team said eggshells are one of nature's most amazing **creations**. Professor John Harding from Sheffield University told reporters: "Understanding how chickens make eggshells is fascinating in **itself** but can also give clues towards designing new materials and processes." Eggshells are very lightweight but **incredibly** strong. The most cutting-edge materials designed by the world's top engineers cannot produce anything as **brilliant** as an eggshell. Professor Harding added that studying eggshells could help find new answers to bone-healing **processes** and materials used by the construction industry: "Nature has found innovative solutions that work for all **kinds** of problems in materials science and technology -- we can **learn** a lot from them," he said.

LANGUAGE WORK

- 1 - d 2 - a 3 - b 4 - c 5 - c 6 - b 7 - d 8 - a 9 - b 10 - d 11 - c 12 - a

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