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Level 3

Nobel chemistry prize for molecule photos

7th October, 2017

https://breakingnewsenglish.com/1710/171007-chemistry.html

Contents

The Article	2	Discussion (Student-Created Qs)	14
Warm-Ups	3	Language Work (Cloze)	15
Before Reading / Listening	4	Spelling	16
Gap Fill	5	Put The Text Back Together	17
Match The Sentences And Listen	6	Put The Words In The Right Order	18
Listening Gap Fill	7	Circle The Correct Word	19
Comprehension Questions	8	Insert The Vowels (a, e, i, o, u)	20
Multiple Choice - Quiz	9	Punctuate The Text And Add Capitals	21
Role Play	10	Put A Slash (/) Where The Spaces Are	22
After Reading / Listening	11	Free Writing	23
Student Survey	12	Academic Writing	24
Discussion (20 Questions)	13	Homework	25
		Answers	26

Please try Levels 0, 1 and 2 (they are easier).

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THE ARTICLE

From https://breakingnewsenglish.com/1710/171007-chemistry.html

The 2017 Nobel Prize in chemistry has gone to three scientists for their work on photographing molecules. Professors Jacques Dubochet, Joachim Frank and Richard Henderson will share the \$1,090,000 prize. They developed a special way of taking photos of molecules. Molecules are the very smallest building blocks that make up the cells in our body. Everything and everyone is made of molecules. The three chemists developed a technique called cryo-electron microscopy (cryo-EM). This allows scientists to zoom in to amazing new levels. Scientists can now see things in our bodies that we have never seen before. They can see how the building blocks of life move.

The Nobel Prize committee said the new cryo-EM technique will change science forever. It said the technique has "moved biochemistry into a new era". The Nobel chairperson said: "Soon, there will be no more secrets. Now we can see the intricate details of the biomolecules in every corner of our cells and every drop of our body fluids. We can understand how they are built and how they act and how they work together in large communities. We are facing a revolution in biochemistry." Professor Frank said the practical uses for the technique were "immense". Cryo-EM will mean scientists can look at the building blocks of viruses. This means we will find cures for many diseases.

Sources: http://www.bbc.com/news/science-environment-41495621

http://www.sciencemag.org/news/2017/10/cold-clear-view-life-wins-chemistry-nobel

https://www.newyorker.com/tech/elements/seeing-the-invisible-world-with-the-2017-nobel-prize-

in-chemistry

WARM-UPS

- **1. CHEMISTRY:** Students walk around the class and talk to other students about chemistry. Change partners often and share your findings.
- **2. CHAT:** In pairs / groups, talk about these topics or words from the article. What will the article say about them? What can you say about these words and your life?

chemistry / scientists / molecules / taking photos / cells / everyone / zoom in / life / committee / forever / secrets / communities / revolution / technique / viruses / cures

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

- **3. NO DISEASE:** Students A **strongly** believe no disease in the world would be a great thing; Students B **strongly** believe it wouldn't. Change partners again and talk about your conversations.
- **4. SCIENCE:** What do you know about these sciences? How important are they? Complete this table with your partner(s). Change partners often and share what you wrote.

	What do you know?	How useful is this?
Chemistry		
Biology		
Physics		
Computer science		
Food science		
Sports science		

- **5. PHOTO:** Spend one minute writing down all of the different words you associate with the word "photo". Share your words with your partner(s) and talk about them. Together, put the words into different categories.
- **6. NOBEL PRIZES:** Rank these with your partner. Put the most important real and imaginary Nobel Prize at the top. Change partners often and share your rankings.

Literature

Medicine

• Peace

Economic Sciences

Physics

Sport

Chemistry

Music

BEFORE READING / LISTENING

From https://breakingnewsenglish.com/1710/171007-chemistry.html

1. TRUE / FALSE: Read the headline. Guess if a-h below are true (T) or false (F).

- a. The Nobel Prize for Chemistry was won by three scientists. T / F
- b. The winners shared a prize of just under \$1,000,000. **T / F**
- c. Only people are made up of molecules. T/F
- d. Scientists can't now see how the building blocks of life move. T / F
- e. The Nobel committee said the new technique won't change science. T / F

a. made

h. lets

i.

communities

- f. The Nobel chairperson said there would be no more secrets. T / F
- g. The committee said biochemistry is facing a revolution. **T/F**
- h. A professor said we would find cures for many diseases. T / F

2. SYNONYM MATCH:

9. the practical uses for the technique

8. fluids

Match the following synonyms. The words in **bold** are from the news article.

- 1. work
- **2. share** b. remedies
- **3. developed** c. previously
- **4. allows** d. liquids
- **5. before** e. time
- **6. forever** f. efforts
- **7. era** g. groups
- 9. communities i. split
- **10. cures** j. for always

3. PHRASE MATCH: (Sometimes more than one choice is possible.)

- share the
 in biochemistry
- 2. They developed a special b. of life move
- 3. Everything and everyone c. our body fluids
- 4. see things in our bodies that we have d. for many diseases
- 5. how the building blocks e. is made of molecules
- 6. every drop of f. were "immense"
- 7. how they work together in large g. \$1,090,000 prize
- 8. We are facing a revolution h. never seen before
- 10. This means we will find cures j. way of taking photos

GAP FILL

The 2017 Nobel Prize in chemistry has gone to three scientists for	special
their (1) on photographing molecules. Professors	levels
Jacques Dubochet, Joachim Frank and Richard Henderson will	work
(2) the \$1,090,000 prize. They developed a (3) way of taking photos of molecules. Molecules	cells
are the very smallest building blocks that make up the	zoom
(4) in our body. Everything and everyone is made	blocks
of molecules. The three chemists developed a (5)	share
called cryo-electron microscopy (cryo-EM). This allows scientists to	tachniqua
(6) in to amazing new (7)	technique
Scientists can now see things in our bodies that we have never	
seen before. They can see how the building (8) of	
life move.	
The Nobel Prize committee said the new cryo-EM technique will	details
change science (9) It said the technique has	together
"moved biochemistry into a new (10)". The Nobel	forever
chairperson said: "Soon, there will be no more secrets. Now we	TOTEVET
can see the intricate (11) of the biomolecules in	cures
every corner of our cells and every drop of our body	era
(12) We can understand how they are built and	uses
how they act and how they work (13) in large	fluids
communities. We are (14) a revolution in	facing
biochemistry." Professor Frank said the practical	racing
(15) for the technique were "immense". Cryo-EM	
will mean scientists can look at the building blocks of viruses. This	

LISTENING — Guess the answers. Listen to check.

From https://breakingnewsenglish.com/1710/171007-chemistry.html

1)	The 2017 Nobel Prize in chemistry has scientists a. going to three b. gone to free c. going to free
2)	 d. gone to three Molecules are the very smallest building blocks that make up body a. the calls in our b. the sells in our c. the seals in our d. the cells in our
3)	This allows scientists to zoom in to amazing a. new levels b. newly levels c. knew levels d. knew level
4)	Scientists can now see things in our bodies that we have before a. never seeing b. never seen c. never scene d. never serene
5)	They can see how the building blocks of a. life moves b. life moved c. life move d. life mover
6)	The Nobel Prize committee said the new cryo-EM technique will change a. science for every b. science for even c. science forever d. science four ever
	It said the technique has "moved biochemistry into" a. a new era b. a new ear c. a new aura d. a new aurora
8)	details of the biomolecules in every corner of our cells and every drop of a. our bodily fluid b. hour body fluids c. our body fluids d. our body fluid
9)	Professor Frank said the practical uses for the technique a. were "immense" b. were "immerse" c. were "comments" d. were "cements"
10	Cryo-EM will mean scientists can look at the building
	a. blocks off viruses
	b. blocks of virus is
	c. block soft virusesd. blocks of viruses

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LISTENING – Listen and fill in the gaps

The 2017 Nobel Prize in chemistry has (1) so	ientists
for their work on photographing molecules. Professors Jacques Du	bochet,
Joachim Frank and Richard Henderson (2)	
\$1,090,000 prize. They developed a special way of taking pho	otos of
molecules. Molecules are (3) building bloc	ks that
make up the cells in our body. Everything and everyone is m	ade of
molecules. The three chemists developed (4)	_ cryo-
electron microscopy (cryo-EM). This allows scientists to zoom in to a	mazing
new levels. Scientists can (5) in our bodies	that we
have never seen before. They (6) the l	ouilding
blocks of life move.	
The Nobel Prize committee said the new cryo-EM technique will	change
science forever. It said (7) "moved bioch	_
into a new era". The Nobel chairperson said:	
(8) no more secrets. Now we can see the i	
details of the biomolecules in (9) our cells an	
drop of our body fluids. We can understand	
(10) and how they act and how they work to	
in large communities. We are facing a revolution in biochemistry." Pr	
Frank said (11) for the technique were "imr	
Cryo-EM will mean scientists can look at the building blocks of viruse	
means we will (12) many diseases.	.3. 11113
means we will (12) many discuses.	

COMPREHENSION QUESTIONS

1.	How many chemists won the Nobel Chemistry Prize?
2.	How much did the prizewinners win?
3.	What did the article say is made up of molecules?
4.	What can scientists now do to new levels?
5.	What can scientists now see the building blocks of life do?
6.	What did the Nobel Prize committee say would change forever?
7.	What did the Nobel chairperson say there would be no more of?
8.	Where do biomolecules work together?
9.	What is there now a revolution in?
10.	What will scientists find cures for?

MULTIPLE CHOICE - QUIZ

From https://breakingnewsenglish.com/1710/171007-chemistry.html

- 1) How many chemists won the Nobel Chemistry Prize?
- a) 1
- b) 4
- c) 2
- d) 3
- 2) How much did the prizewinners win?
- a) \$1,900,000
- b) \$1,090,000
- c) \$1,009,000
- d) \$1,000,009
- 3) What did the article say is made up of molecules?
- a) rocks
- b) animals
- c) humans
- d) everyone and everything
- 4) What can scientists now do to new levels?
- a) research
- b) write
- c) zoom in
- d) work
- 5) What can scientists now see the building blocks of life do?
- a) vibrate
- b) reproduce
- c) break down
- d) move

- 6) What did the Nobel Prize committee say would change forever?
- a) life
- b) our body
- c) science
- d) everything
- 7) What did the Nobel chairperson say there would be no more of?
- a) secrets
- b) money
- c) research
- d) mistakes
- 8) Where do biomolecules work together?
- a) in fluids
- b) in corners
- c) in large communities
- d) in microscopes
- 9) What is there now a revolution in?
- a) techniques
- b) biochemistry
- c) diseases
- d) cures
- 10) What will scientists find cures for?
- a) many diseases
- b) the world's problems
- c) colds
- d) headaches

ROLE PLAY

From https://breakingnewsenglish.com/1710/171007-chemistry.html

Role A - Chemistry

You think the Nobel Prize for Chemistry is the best. Tell the others three reasons why. Tell them what is wrong with their prizes. Also, tell the others which is the least important of these (and why): Peace, Literature or Medicine.

Role B - Peace

You think the Nobel Prize for Peace is the best. Tell the others three reasons why. Tell them what is wrong with their prizes. Also, tell the others which is the least important of these (and why): Chemistry, Literature or Medicine.

Role C - Literature

You think the Nobel Prize for Literature is the best. Tell the others three reasons why. Tell them what is wrong with their prizes. Also, tell the others which is the least important of these (and why): Peace, Chemistry or Medicine.

Role D – Medicine

You think the Nobel Prize for Medicine is the best. Tell the others three reasons why. Tell them what is wrong with their prizes. Also, tell the others which is the least important of these (and why): Peace, Literature or Chemistry.

AFTER READING / LISTENING

From https://breakingnewsenglish.com/1710/171007-chemistry.html

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

prize	scientist

- 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:

• gone	forever
• share	• era
• very	• details
 everyone 	• drop
• zoom	facing
• move	• look

CHEMISTRY SURVEY

From https://breakingnewsenglish.com/1710/171007-chemistry.html

Write five GOOD questions about chemistry 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.

CHEMISTRY DISCUSSION

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

- 1. What did you think when you read the headline?
- 2. What images are in your mind when you hear the word 'prize'?
- 3. What do you know about the Nobel Prize?
- 4. What do you know about chemistry?
- 5. What do you know about molecules?
- 6. How important are scientists?
- 7. How good were/are you at chemistry?
- 8. What would you like to zoom in on?
- 9. How important are scientists compared to bankers?
- 10. Why is it important to see the building blocks of life?

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CHEMISTRY DISCUSSION

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

- 11. Did you like reading this article? Why/not?
- 12. What do you think of when you hear the word 'scientists'?
- 13. What do you think about what you read?
- 14. How will the new technique change science?
- 15. What secrets about the body would you like to know?
- 16. What Nobel Prize would you like to win?
- 17. What science would you like to work in?
- 18. How important are scientists compared to police officers?
- 19. Would it be good if all diseases were cured?
- 20. What questions would you like to ask the prizewinners?

DISCUSSION (Write your own questions)

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

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CU	SSION (Write your own questions)
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CU	SSION (Write your own questions
CU	SSION (Write your own questions

LANGUAGE - CLOZE

The	2017	Nobel Prize in	chemis	stry has (1)	to	three scient	tists for	their work or
-	photographing molecules. Professors Jacques Dubochet, Joachim Frank and Richard Henderson will (2) the \$1,090,000 prize. They developed a (3) way o							
	aking photos of molecules. Molecules are the (4) smallest building blocks tha							
		the cells in ou						
		mists develop						
		Is scientists to	=	-	-			
thing	gs in	our bodies th	at we l	nave never (5)	before. Th	ney can	see how the
build	ling b	locks of life mo	ove.					
The	Nobe	l Prize commi	ittee sa	aid the new	cryo-E	M technique	will ch	nange science
fore	ver. It	t said the tech	nnique	has "moved l	oiochei	mistry into a	new (7)". The
Nobe	el cha	irperson said:	"Soon,	there will be	no mo	ore (8)	. Now w	ve can see the
intri	cate d	letails of the b	oiomole	cules in (9) $_{\scriptscriptstyle -}$	c	orner of our	cells a	nd every drop
		dy fluids. We			-			-
. ,		they work to	_	_			_	
		try." Professo		•	-			·
		". Cryo-EM wi					ing bloc	CKS OF VIRUSES
IIIIS	mear	ns we will find	cures (12) Mai	iy dise	eases.		
Put	the c	orrect words	from	the table be	low in	the above	article	
1.	(a)	been	(b)	gone	(c)	went	(d)	going
2.	(a)	sharing	(b)	share	(c)	shared	(d)	shares
3.	(a)	specialize	(b)	specially	(c)	especial	(d)	special
4.	(a)	verily	(b)	very	(c)	verity	(d)	vary
5.	(a)	tech	(b)	technically	(c)	technical	(d)	technique
6.	(a)	watched	(b)	viewed	(c)	seen	(d)	looked
7.	(a)	era	(b)	aria	(c)	aura	(d)	error
8.	(a)	secretive	(b)	secreted	(c)	secrets	(d)	secret
9.	(a)	entire	(b)	whole	(c)	all	(d)	every
10.	(a)	how	(b)	what	(c)	which	(d)	whichever
11.	(a)	practical	(b)	partial	(c)	palatial	(d)	palate
12.	(a)	for	(b)	from	(c)	if	(d)	as

SPELLING

From https://breakingnewsenglish.com/1710/171007-chemistry.html

Paragraph 1

- 1. three sctssnitei
- 2. share the \$1,090,000 zrpie
- 3. taking photos of <u>Ismelueoc</u>
- 4. chemists developed a nuthcieeq
- 5. zoom in to <u>inagazm</u> new levels
- 6. the <u>lubgidni</u> blocks of life

Paragraph 2

- 7. there will be no more srceste
- 8. every drop of our body <u>ldfsui</u>
- 9. We are facing a <u>iuovotnelr</u>
- 10. pctaciarl uses
- 11. the building blocks of esruisv
- 12. find cures for many sseidsea

PUT THE TEXT BACK TOGETHER

From https://breakingnewsenglish.com/1710/171007-chemistry.html

Number these lines in the correct order.

()	developed a technique called cryo-electron microscopy (cryo-EM). This allows scientists to zoom
()	in to amazing new levels. Scientists can now see things in our bodies that we have never
()	biochemistry." Professor Frank said the practical uses for the technique were "immense". Cryo-EM will mean
()	of our cells and every drop of our body fluids. We can understand how they are built and how they act
()	and how they work together in large communities. We are facing a revolution in
()	up the cells in our body. Everything and everyone is made of molecules. The three chemists
()	Jacques Dubochet, Joachim Frank and Richard Henderson will share the \$1,090,000 prize. They developed a special
()	scientists can look at the building blocks of viruses. This means we will find cures for many diseases.
()	secrets. Now we can see the intricate details of the biomolecules in every corner
()	way of taking photos of molecules. Molecules are the very smallest building blocks that make
()	seen before. They can see how the building blocks of life move.
()	The Nobel Prize committee said the new cryo-EM technique will change science forever. It said the technique
(1)	The 2017 Nobel Prize in chemistry has gone to three scientists for their work on photographing molecules. Professors
()	has "moved biochemistry into a new era". The Nobel chairperson said: "Soon, there will be no more

PUT THE WORDS IN THE RIGHT ORDER

From https://breakingnewsenglish.com/1710/171007-chemistry.html

1. of developed way photos They special taking molecules a of . made and of everyone molecules is Everything . 2. 3. This to to levels scientists in new allows zoom amazing. our we seen in that never Things bodies have before . 5. building life can the of They how blocks move see . 6. forever technique science new cryo-EM change The will . 7. the of Now see details biomolecules can intricate the we . 8. are built and how they act We can understand how they . 9. in We facing revolution biochemistry are a .

10. means for we many will diseases find This cures .

CIRCLE THE CORRECT WORD (20 PAIRS)

From https://breakingnewsenglish.com/1710/171007-chemistry.html

The 2017 Nobel Prize in chemistry has gone / going to three scientists for their work on photographing molecules. Professors Jacques Dubochet, Joachim Frank and Richard Henderson will share the \$1,090,000 prize. They developed a *specially / special* way of taking photos of molecules. Molecules are the very smallest *building / built* blocks that make up the *calls /cells* in our body. Everything and everyone is made *off / of* molecules. The three chemists *developed / development* a technique called cryo-electron microscopy (cryo-EM). *This allows / allow* scientists to zoom *on / in* to amazing new levels. Scientists can now see *things / thing* in our bodies that we have never seen before. They can see how the building blocks of life *move / movement*.

The Nobel Prize committee said the *newly / new* cryo-EM technique will change science forever. It said the *technique / technical* has "moved biochemistry into a new era". The Nobel chairperson said: "Soon, there will be *no / not* more secrets. Now we can see / seen the intricate details of the biomolecules in every *corners / corner* of our cells and every drop of our body fluids. We can understand how they are *build / built* and how they act and how they work together *on / in* large communities. We are *faced / facing* a revolution in biochemistry." Professor Frank said the *practical / practice* uses for the technique were "immense". Cryo-EM will mean scientists can look at the building blocks of *virus / viruses*. This means we will find cures for many diseases.

Talk about the connection between each pair of words in italics, and why the correct word is correct.

INSERT THE VOWELS (a, e, i, o, u)

From https://breakingnewsenglish.com/1710/171007-chemistry.html

Th_ 2017 N_b_I Pr_z_ _n ch_m_stry h_s g_n_ t_ thr__ sc__nt_sts f_r th__r w_rk _n ph_t_gr_ph_ng m_l_c_l_s. Pr_f_ss_rs J_cq__s D_b_ch_t, J__ch_m Fr_nk _nd R_ch_rd H_nd_rs_n w_ll sh_r_ th_ \$1,090,000 pr_z_. Th_y d_v_l_p_d _ sp_c__l w_y _f t_k_ng ph_t_s _f m I c I s. M I c I s r th v ry sm II st b Id ng bl_cks th_t m_k_ _p th_ c_lls _n __r b_dy. _v_ryth_ng _nd _v_ry_n_ _s m_d_ _f m_l_c_l_s. Th_ thr__ ch_m_sts d_v_l_p_d _ t_chn_q__ c_ll_d cry_-_l_ctr_n m_cr_sc_py (cry_-_M). Th_s _II_ws sc__nt_sts t_ z__m _n t_ _m_z_ng n_w l_v_ls. Sc__nt_sts c_n n_w s__ th_ngs _n __r b_d__s th_t w_ h_v_ n_v_r s__n b_f_r_. Thy cns hwth bld ngbl cks flf m v. Th_ N_b_I Pr_z_ c_mm_tt__ s__d th_ n_w cry_-_M t_chn_q__ w_ll ch_ng_ sc__nc_ f_r_v_r. _t s__d th_ t_chn_q__ h_s "m_v_d b__ch_m_stry _nt_ _ n_w _r_". Th_ N_b_I ch__rp_rs_n s__d: "S__n, th_r_ w_II b_ n_ m_r_ s_cr_ts. N_w w_ c_n s__ th_ _ntr_c_t_ d_t__ls _f th_ b__m_l_c_l_s _n _v_ry c_rn_r _f __r c_lls _nd _v_ry dr_p _f __r b_dy fl__ds. W_ c_n _nd_rst_nd h_w $th_y _r_ \ b__lt _nd \ h_w \ th_y _ct _nd \ h_w \ th_y \ w_rk$ t_g_th_r _n l_rg_ c_mm_n_t_s. W_ _r_ f_c_ng _ r_v_l_t__n _n b__ch_m_stry." Pr_f_ss_r Fr_nk s__d th_ $pr_ct_c_l _s_s \ f_r \ th_ \ t_chn_q__ \ w_r_ \ "_mm_ns_". \\$ Cry_-_M w_II m__n sc__nt_sts c_n l__k _t th_ b__Id_ng blcks fvrss. Thsm nsw wllfndcrsfr m ny d s s s.

PUNCTUATE THE TEXT AND ADD CAPITALS

From https://breakingnewsenglish.com/1710/171007-chemistry.html

the 2017 nobel prize in chemistry has gone to three scientists for their work on photographing molecules professors jacques dubochet joachim frank and richard henderson will share the \$1090000 prize they developed a special way of taking photos of molecules molecules are the very smallest building blocks that make up the cells in our body everything and everyone is made of molecules the three chemists developed a technique called cryo-electron microscopy (cryo-em) this allows scientists to zoom in to amazing new levels scientists can now see things in our bodies that we have never seen before they can see how the building blocks of life move

the nobel prize committee said the new cryo-em technique will change science forever it said the technique has "moved biochemistry into a new era" the nobel chairperson said "soon there will be no more secrets now we can see the intricate details of the biomolecules in every corner of our cells and every drop of our body fluids we can understand how they are built and how they act and how they work together in large communities we are facing a revolution in biochemistry" professor frank said the practical uses for the technique were "immense" cryo-em will mean scientists can look at the building blocks of viruses this means we will find cures for many diseases

PUT A SLASH (/) WHERE THE SPACES ARE

From https://breakingnewsenglish.com/1710/171007-chemistry.html

The 2017 Nobel Prize inchemistry has gone to three scientists for their wo rkonphotographingmolecules.ProfessorsJacquesDubochet,Joachim FrankandRichardHendersonwillsharethe\$1,090,000prize.Theydeve lopedaspecialwayoftakingphotosofmolecules. Molecules are the very s mallestbuildingblocksthatmakeupthecellsinourbody. Everythingand everyoneismadeofmolecules. The three chemists developed a techniq uecalledcryo-electronmicroscopy(cryo-EM). This allows scientists t ozoomintoamazingnewlevels. Scientists cannow seethings in our bodi esthatwehaveneverseenbefore. They can see how the building blocks of lifemove.TheNobelPrizecommitteesaidthenewcryo-EMtechniquewil Ichangescienceforever. Itsaidthetechnique has "moved biochemistryi ntoanewera". The Nobel chair persons aid: "Soon, the rewill be no mores ecrets. Nowwecan see the intricated etails of the biomolecules in every co rnerofourcellsandeverydropofourbodyfluids. Wecanunderstandhowt heyarebuiltandhowtheyactandhowtheyworktogetherinlargecommu nities. Wear efacing are volution in biochemistry. "Professor Franks aidt hepracticalusesforthetechniquewere"immense".Cryo-EMwillmea nscientistscanlookatthebuildingblocksofviruses. Thismeanswewillfin dcuresformanydiseases.

FREE WRITING

Write about chemistry for 10 minutes. Comment on your partner's paper.				

ACADEMIC WRITING

The Nobel Prize money should be one billion dollars. Discuss.			

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 news. Share what you discover with your partner(s) in the next lesson.
- **3. CHEMISTRY:** Make a poster about chemistry. Show your work to your classmates in the next lesson. Did you all have similar things?
- **4. NOBEL PRIZES:** Write a magazine article about the Nobel Prizes. Include imaginary interviews with people who are for and against them.

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. WHAT HAPPENED NEXT?** Write a newspaper article about the next stage in this news story. Read what you wrote to your classmates in the next lesson. Give each other feedback on your articles.
- **6. LETTER:** Write a letter to an expert on chemistry. Ask him/her three questions about it. Give him/her three of your ideas on what new things scientists should find out in the future. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

TRUE / FALSE (p.4)

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

SYNONYM MATCH (p.4)

- 1. work
- 2. share
- 3. developed
- 4. allows
- 5. before
- 6. forever
- 7. era
- 8. fluids
- 9. communities
- 10. cures

- a. efforts
- b. split
- c. made
- d. lets
- e. previously
- f. for always
- g. time
- h. liquids
- i. groups
- i. remedies

COMPREHENSION QUESTIONS (p.8)

- 1. 3
- 2. \$1,090,000
- 3. Everything and everyone
- 4. Zoom in
- 5. Move
- 6. Science
- 7. Secrets
- 8. In large communities
- 9. Biochemistry
- 10. Many diseases

MULTIPLE CHOICE - QUIZ (p.9)

1. d 2. b 3. d 4. c 5. d 6. c 7. a 8. c 9. b 10. a

ALL OTHER EXERCISES

Please check for yourself by looking at the Article on page 2. (It's good for your English ;-)