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Level 6 - 19th December 2022

Satellite launched to map Earth's water

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https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

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Please try Levels 4 and 5 (they are easier).

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THE ARTICLE

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

A U.S.-French satellite has been launched with a mission to map all the world's oceans, lakes, reservoirs, rivers and other waterways. The satellite has been dubbed SWOT - Surface Water and Ocean Topography. It went into space just before dawn on Friday. Scientists hope data from the satellite will help them to monitor how climate change is adversely changing water levels. The U.S. broadcaster PBS said: "The satellite is needed more than ever, as climate change worsens droughts, flooding and coastal erosion." A NASA spokesperson spoke of the mission's importance. She said: "It's a pivotal moment....We're going to see Earth's water like we've never seen it before."

The SWOT satellite is about the size of an SUV (sports utility vehicle). It took 20 years to develop, at a cost of \$1.2 billion. High-precision radar equipment will measure the height of water on more than 90 per cent of Earth's surface. It will survey millions of lakes, as well as 2.1 million kilometres of rivers. Scientists will identify potential areas of water loss that could threaten local populations and coastlines. NASA said SWOT is a marked technological upgrade from its predecessors. A spokesperson said: "SWOT will give us a ten-fold improvement in the [accuracy] and spatial resolution of our measurements of water height." It will help scientists to better understand, "the critical role the oceans play in climate change".

 $Sources: \quad https://www.\textbf{pbs.org}/newshour/science/u-s-french-satellite-launched-to-map-almost-all-of-the-$

worlds-oceans-lakes-rivers

https://www.aljazeera.com/news/2022/12/16/us-france-satellite-to-map-worlds-oceans-rivers-

lakes

https://spacenews.com/falcon-9-launches-ocean-science-mission-for-nasa-and-cnes/

WARM-UPS

- **1. WATER:** Students walk around the class and talk to other students about water. 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?

satellite / mission / reservoir / dawn / climate change / water levels / drought / Earth SUV / radar / surface / scientists / water loss / upgrade / measurements / oceans

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

- **3. WATER WARS:** Students A **strongly** believe we should conserve water to avoid water wars in the future; Students B **strongly** believe water wars will never happen. Change partners again and talk about your conversations.
- **4. WORLD WATER:** What do you know about these bodies of water and waterways? What would you like to know? Complete this table with your partner(s). Change partners often and share what you wrote.

	What I Know	What I Want to Know
The Pacific Ocean		
The Great Barrier Reef		
The River Amazon		
The Dead Sea		
Loch Ness		
The Suez Canal		

- **5. OCEAN:** Spend one minute writing down all of the different words you associate with the word "ocean". Share your words with your partner(s) and talk about them. Together, put the words into different categories.
- **6. WATER USES:** Rank these with your partner. Put the worst uses of water at the top. Change partners often and share your rankings.
 - Hose pipes
 - Swimming pools
 - Car washes
 - Water parks

- · Golf courses
- · Bottled water
- Water pistols
- Fountains

VOCABULARY MATCHING

Paragraph 1

- mission a. In a way that prevents success or development.
- 2. reservoir b. A prolonged period of abnormally low rainfall, leading to a shortage of water.
- 3. dubbed c. A trip or expedition into space.
- 4. adversely d. Of crucial importance in relation to the development or success of something else.
- 5. drought e. A large natural or artificial lake used as a source of water supply.
- 6. erosion f. Gave an unofficial name or nickname to.
- 7. pivotal g. The process of being worn away by wind, water, or other natural agents.

Paragraph 2

- 8. precision h. Having a decisive or crucial importance in the success, failure, or existence of something.
- 9. measure i. The quality, condition, or fact of being exact and accurate.
- 10. potential j. Find the size, amount, or degree of something by using an instrument or device marked in standard units.
- 11. marked k. A thing that has been followed or replaced by another.
- 12. predecessor I. Clearly noticeable.
- 13. resolution m. Having or showing the capacity to develop into something in the future.
- 14. critical n. The degree of detail visible in a photographic or television image.

BEFORE READING / LISTENING

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

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

- 1. A Sino-American satellite will map the world's water. **T / F**
- 2. The satellite is called SWOT Satellite for Water and Ocean Topography. T / F
- 3. The satellite was launched early Friday evening. **T/F**
- 4. The broadcaster PBS said the satellite was very much needed. T / F
- 5. The satellite is the size of a sports utility vehicle. **T/F**
- 6. The satellite will survey 2.1 million kilometres of Earth's rivers. **T/F**
- 7. The satellite has the same level of technology as earlier satellites. **T/F**
- 8. The satellite will help scientists understand climate change more. T / F

2. SYNONYM MATCH: (The words in **bold** are from the news article.)

- 1. mission
- 2. dubbed
- 3. dawn
- 4. adversely
- 5. pivotal
- 6. develop
- 7. precision
- 8. survey
- 9. identify
- 10. role

- a. daybreak
- b. part
- c. vital
- d. inspect
- e. nicknamed
- f. exactness
- g. journey
- h. recognize
- i. negatively
- i. create

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

- 1. The satellite has been dubbed
- 2. climate change is adversely
- 3. climate change worsens droughts, flooding
- 4. It's a pivotal
- 5. see Earth's water like we've
- 6. sports utility
- 7. High-precision
- 8. Scientists will identify potential
- 9. threaten local populations and
- 10. the critical role the oceans

- a. vehicle
- b. never seen it before
- c. coastlines
- d. areas of water loss
- e. and coastal erosion
- f. SWOT
- g. play in climate change
- h. moment
- i. radar equipment
- j. changing water levels

GAP FILL

A U.SFrench satellite has been launched with a	dubbed
to map all the world's oceans, lakes,	importance
(2), rivers and other waterways. The satellite	adversely
has been (3) SWOT - Surface Water and	,
Ocean Topography. It went into space just before	pivotal
(4) on Friday. Scientists hope data from the	reservoirs
satellite will help them to monitor how climate change is	worsens
changing water levels. The U.S.	mission
broadcaster PBS said: "The satellite is needed more than ever, as	dawn
climate change (6) droughts, flooding and	uawii
coastal erosion." A NASA spokesperson spoke of the mission's	
(7) She said: "It's a (8)	
momentWe're going to see Earth's water like we've never seen	
it before."	
The SWOT satellite is about the size of an SUV (sports utility	fold
vehicle). It took 20 years to (9), at a cost of	precision
\$1.2 billion. High-(10) radar equipment will	precision
measure the height of water on more than 90 per cent of Earth's	play
(11) It will survey millions of lakes, as well as	potential
2.1 million kilometres of rivers. Scientists will identify	spatial
(12) areas of water loss that could threaten	develop
local populations and coastlines. NASA said SWOT is a	-
technological upgrade from its	marked
predecessors. A spokesperson said: "SWOT will give us a ten-	surface
(14) improvement in the [accuracy] and	
resolution of our measurements of water	
height." It will help scientists to better understand, "the critical	
role the oceans (16) in climate change".	

LISTENING – Guess the answers. Listen to check.

1)	It went into space just before a. drawn on Friday b. down on Friday c. dawn on Friday d. door on Friday
2)	data from the satellite will help them to monitor how climate change a. is at verse rich dangling b. is adversely changing c. is ad verse all changing d. is add verse really changing
3)	more than ever, as climate change worsens droughts, flooding a. and coast all erosion b. and coastal eroding c. and coastal erasure d. and coastal erosion
4)	A NASA spokesperson spoke of the mission's importance. She said it's a. a pivot all moment b. a pivot tall moment c. a pivotal moment d. a pivot tail moment
5)	We're going to see Earth's water like we've never a. seen it before b. see knit before c. seen nit before d. see nit before
6)	measure the height of water on more than 90 per cent a. of Earth's surface b. off Earth surface c. oft Earth's surface d. of Earth surface
7)	Scientists will identify potential areas of water loss that could a. treat in local populations b. threaten low call populations c. treating low call populations d. threaten local populations
	NASA said SWOT is a marked technological upgrade a. from mitts predecessors b. fro mitts predecessors c. from mites predecessors d. from its predecessors
9)	a ten-fold improvement in the accuracy a. and spay shall resolution b. and spatial resolution c. and spay shell resolution d. and space shell resolution
10) It will help scientists to better understand
	a. the critical roll
	b. the critical all
	c. the critical ruled. the critical role

LISTENING – Listen and fill in the gaps

A U.SFrench satellite has been launched with a (1)
all the world's oceans, lakes, (2) other waterways.
The satellite has been dubbed SWOT - Surface Water and Ocean
Topography. It went into space (3) on Friday.
Scientists hope data from the satellite will help them to monitor how climate
change (4) water levels. The U.S. broadcaster PBS
said: "The satellite is needed more than ever, as climate change
(5) and coastal erosion." A NASA spokesperson
spoke of the mission's importance. She said: "It's
(6)We're going to see Earth's water like we've
never seen it before."
The CMOT scholling is shown the size of an CUN
The SWOT satellite is about the size of an SUV
($_{(7)}$). It took 20 years to develop, at a cost of \$1.2
billion. High-precision radar equipment will (8) of
water on more than 90 per cent of Earth's surface. It will survey millions of
lakes, as well as 2.1 million kilometres of rivers. Scientists will
(9) of water loss that could threaten local
populations and coastlines. NASA said SWOT is a marked technological
upgrade (10) A spokesperson said: "SWOT will give
(11) improvement in the [accuracy] and spatial
resolution of our measurements of water height." It will help scientists to
better understand, "the (12) oceans play in climate
change".

COMPREHENSION QUESTIONS

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

1.	Which two countries developed the satellite?
2.	At what time of the day did the satellite launch into space?
3.	Which broadcaster said the satellite was needed more than ever?
4.	What might climate change erode?
5.	What kind of moment did NASA say the satellite's launch was?
6.	How much did the satellite cost?
7.	How much of the Earth's surface will the satellite map?
8.	What could water losses threaten besides populations?
9.	How much more accurate did NASA say the satellite was?
10.	What critical role of oceans will SWOT help scientists understand?

MULTIPLE CHOICE - QUIZ

- 1) Which two countries developed the satellite?
- a) the USA and the UK
- b) China and the USA
- c) the US and Italy
- d) the USA and France
- 2) At what time of the day did the satellite launch into space?
- a) 6:45am
- b) dawn
- c) 4pm
- d) midnight
- 3) Which broadcaster said the satellite was needed more than ever?
- a) Fox News
- b) CNN
- c) BBC
- d) PBS
- 4) What might climate change erode?
- a) islands
- b) clouds
- c) coasts
- d) water
- 5) What kind of moment did NASA say the satellite's launch was?
- a) a hysterical moment
- b) a monumental moment
- c) a touching moment
- d) a pivotal moment

- 6) How much did the satellite cost?
- a) \$1.4 billion
- b) \$1.1 billion
- c) \$1.2 billion
- d) \$1.3 billion
- 7) How much of the Earth's surface will the satellite map?
- a) 90%
- b) 80%
- c) 70%
- d) 60%
- 8) What could water losses threaten besides populations?
- a) water parks
- b) gold courses
- c) coastlines
- d) the bottled water industry
- 9) How much more accurate did NASA say the satellite was?
- a) a lot
- b) 10 times
- c) many times
- d) 100%
- 10) What critical role of oceans will SWOT help scientists understand?
- a) climate change
- b) reefs
- c) the creation of plankton
- d) underwater volcanoes

ROLE PLAY

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

Role A - Hose Pipes

You think hose pipes are the biggest waste of this valuable resource. Tell the others three reasons why. Tell them what is wrong with their uses. Also, tell the others which is the least wasteful of these (and why): swimming pools, golf courses or bottled water.

Role B - Swimming Pools

You think swimming pools are the biggest waste of this valuable resource. Tell the others three reasons why. Tell them what is wrong with their uses. Also, tell the others which is the least wasteful of these (and why): hose pipes, golf courses or bottled water.

Role C - Golf Courses

You think golf courses are the biggest waste of this valuable resource. Tell the others three reasons why. Tell them what is wrong with their uses. Also, tell the others which is the least wasteful of these (and why): swimming pools, hose pipes or bottled water.

Role D – Bottled Water

You think bottled water is the biggest waste of this valuable resource. Tell the others three reasons why. Tell them what is wrong with their uses. Also, tell the others which is the least wasteful of these (and why): swimming pools, golf courses or hose pipes.

AFTER READING / LISTENING

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

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

water	satellite

- 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:

mission	• size
 dubbed 	• radar
• dawn	 millions
 adversely 	• local
worsens	• fold
 moment 	• role

WATER SURVEY

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

Write five GOOD questions about water 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.

WATER 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 'water'?
- 3. What do you know about water?
- 4. What do you know about satellites?
- 5. What do you think of the SWOT satellite?
- 6. What is happening to your country's water?
- 7. What might spark water wars in the future?
- 8. How is climate change affecting water?
- 9. How would your country handle a drought?
- 10. What water problems has your country had?

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WATER 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 'satellite'?
- 13. What do you think about what you read?
- 14. What do you think of water?
- 15. What threats are there to levels and quality of water?
- 16. Is the SWOT satellite good value for money?
- 17. What would you do if water became scarce?
- 18. What role do oceans play in climate change?
- 19. What is climate change doing to the oceans?
- 20. What questions would you like to ask the topographers?

DISCUSSION (Write your own questions)

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

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DISCU	SSION (\bar{V})	Write y	our ow	n ques	stions	
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LANGUAGE - CLOZE

A U	.SFr	ench satellite	has be	en (1)	with a	mission to	map a	all the world's
ocea	ans, l	akes, reservo	irs, riv	ers and oth	er wat	erways. The	satel	lite has been
(2) _	:	SWOT - Surfa	ce Wat	er and Ocea	an Topo	ography. It v	went in	nto space just
befo	re (3)	on Frida	ay. Scie	entists hope	data fro	om the satell	ite will	help them to
mon	itor h	ow climate cha	ange is	(4) cha	nging v	vater levels. ⁻	The U.S	S. broadcaster
PBS	said:	"The satellite	e is ne	eded more	than e	ver, as clim	ate ch	ange worsens
(5)		flooding and	l coast	al erosion."	A NA	SA spokespe	erson	spoke of the
miss	sion's	importance.	She sa	id: "It's a (6)	_ moment	.We're	going to see
Eart	h's wa	ater like we've	never	seen it before	e."			
The	SWO	T satellite is a	bout th	ne size of an	SUV (sports utility	vehicl	e). It took 20
year	s to	develop, at a	cost o	of \$1.2 billio	n. Hig	h-(7) r	adar e	quipment will
mea	sure 1	the height of	water c	n more thar	1 90 pe	er cent of Ea	rth's (8) It will
surv	ey mi	illions of lakes	, as we	ell as 2.1 mi	illion ki	lometres of	rivers.	Scientists will
(9) _		potential area	s of wa	ater loss tha	at could	d threaten lo	ocal po	pulations and
						_		ade from its
•		•	•			_		ten-(11)
-		_		-				nents of water
_				to better und	ierstan	a, "the (12) _	rc	ole the oceans
piay	III CIII	mate change".						
Put	the c	orrect words	from	the table be	elow in	the above	article	
1.	(a)	latched	(b)	lurched	(c)	lunched	(d)	launched
2.	(a)	dibbed	(b)	daubed	(c)	dabbed	(d)	dubbed
3.	(a)	drawn	(b)	dawn	(c)	down	(d)	drawing
4.	(a)	perversely	(b)	aversely	(c)	adversely	(d)	conversely
5.	(a)	draughts	(b)	drafts	(c)	droughts	(d)	doubts
6.	(a)	pivotal	(b)	spigot	(c)	polyglot	(d)	capital
7.	(a)	precise	(b)	precision	(c)	precisely	(d)	précised
8.	(a)	surface	(b)	suffice	(c)	suffers	(d)	safes
9.	(a)	identity	(b)	identify	(c)	indemnify	(d)	infantile
10.	(a)	parked	(b)	barked	(c)	marked	(d)	harked
11.	(a)	bend	(b)	wrap	(c)	fold	(d)	cross
12.	(a)	critique	(b)	critics	(c)	criticism	(d)	critical

SPELLING

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

Paragraph 1

- 1. a nsisiom to map all the world's oceans
- 2. lakes, resroiesvr, rivers and other waterways
- 3. climate change is <u>dlrsaevye</u> changing water levels
- 4. climate change worsens rguothsd
- 5. flooding and coastal ooesirn
- 6. It's a ivlotpa moment

Paragraph 2

- 7. sports <u>iuttily</u> vehicle
- 8. High-<u>enpcosiir</u> radar equipment
- 9. identify <u>etptaoiln</u> areas of water loss
- 10. upgrade from its <u>cdpeoesersrs</u>
- 11. a ten-fold improvement in the <u>yracaccu</u>
- 12. <u>tislapa</u> resolution

PUT THE TEXT BACK TOGETHER

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

Number these lines in the correct order.

()	Ocean Topography. It went into space just before dawn on Friday. Scientists hope data
(1)	A U.SFrench satellite has been launched with a mission to map all the world's oceans, lakes,
()	from the satellite will help them to monitor how climate change is adversely changing water
()	areas of water loss that could threaten local populations and coastlines. NASA said SWOT is a marked technological
()	scientists to better understand, "the critical role the oceans play in climate change".
()	surface. It will survey millions of lakes, as well as 2.1 million kilometres of rivers. Scientists will identify potential
()	The SWOT satellite is about the size of an SUV (sports utility vehicle). It took 20 years to develop, at a cost
()	upgrade from its predecessors. A spokesperson said: "SWOT will give us a ten-fold
()	reservoirs, rivers and other waterways. The satellite has been dubbed SWOT - Surface Water and
()	improvement in the [accuracy] and spatial resolution of our measurements of water height." It will help
()	levels. The U.S. broadcaster PBS said: "The satellite is needed more than ever, as climate change worsens
()	momentWe're going to see Earth's water like we've never seen it before."
()	of \$1.2 billion. High-precision radar equipment will measure the height of water on more than 90 per cent of Earth's
()	droughts, flooding and coastal erosion." A NASA spokesperson spoke of the mission's importance. She said: "It's a pivotal

PUT THE WORDS IN THE RIGHT ORDER

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

- 1. map to mission A oceans . all world's the
- 2. went It space into just dawn . before
- 3. will Scientists from data satellite hope the help .
- 4. change climate is adversely levels . How changing water
- 5. the of spoke A mission's spokesperson importance . NASA
- 6. measure the water . Radar of height equipment will
- 7. potential water loss . Scientists will areas identify of
- 8. its predecessors . from upgrade technological marked A
- 9. accuracy . ten-fold a Give improvement us the in
- 10. critical understand Better the play . the oceans role

CIRCLE THE CORRECT WORD (20 PAIRS)

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

A U.S.-French satellite has been launched with a mission *to / for* map all the world's oceans, lakes, *reservoirs / reserves* rivers and other waterways. The satellite has been *dabbed / dubbed* SWOT - Surface Water and Ocean Topography. It went into space just before *drawn / dawn* on Friday. Scientists hope *datum / data* from the satellite will help them to monitor how climate change is *conversely / adversely* changing water levels. The U.S. broadcaster PBS said: "The satellite is needed more than *ever / never*, as climate change worsens *droughts / draughts*, flooding and coastal erosion." A NASA spokesperson spoke of the mission's importance. She said: "It's a *pivotal / pivot* moment....We're going to see Earth's water like we've never seen *it / all* before."

The SWOT satellite is about the size of an SUV (sports *utility / utilized* vehicle). It took 20 years to develop, at a cost *of / up* \$1.2 billion. High-precise / precision radar equipment will measure the height of water on more than 90 per cent of Earth's surface. It will *survey / scurvy* millions of lakes, as well as 2.1 million kilometres of rivers. Scientists will *indemnify / identify* potential areas *to / of* water loss that could *treat / threaten* local populations and coastlines. NASA said SWOT is a marked technological upgrade *from / up* its predecessors. A spokesperson said: "SWOT will give us a ten-fold improvement *on / in* the [accuracy] and spatial resolution of our measurements of water height." It will help scientists to better understand, "the *critique / critical* role the oceans play in climate change".

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

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

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

_ _.S.-Fr_nch s_t_ll_t_ h_s b__n l__nch_d w_th _ $m_ss_n t_m_p = ll th_w_rld's c_ns, l_k_s,$ r_s_rv__rs, r_v_rs _nd _th_r w_t_rw_ys. Th_ s_t_Il_t_ h_s b__n d_bb_d SW_T - S_rf_c_ W_t_r _nd _c__n T_p_gr_phy. _t w_nt _nt_ sp_c_ j_st b_f_r_ d_wn _n Fr_d_y . Sc_nt_sts $h_p_d_t$ fr_m $th_s_tll_t$ w_ll_s h_lp th_m t_ m_n_t_r h_w cl_m_t_ ch_ng_ _s _dv_rs_ly ch_ng_ng w_t_r l_v_ls. Th_ _.S. br__dc_st_r PBS $s_d:$ "Th_ s_tII_t _s n_d_d m_r_ th_n _v_r, _s cl_m_t_ ch_ng_ w_rs_ns dr__ghts, fl__d_ng _nd c__st_l _r_s__n." _ N_S_ sp_k_sp_rs_n sp_k_ _f th_ m_ss__n's _mp_rt_nc_. Sh_ s__d: "_t's _ p_v_t_l $m_m_nt....W_{r_g}$ g_ng t_s_r $g_rth's$ w_t_r l_k w_v n_v_r s__n _t b_f_r_." $Th_ SW_T s_t_II_t_ _s _b__t th_ s_z_ _f _n S_V$ (sp_rts _t_l_ty v_h_cl_). _t t__k 20 y__rs t_ d_v_l_p, _t _ c_st _f \$1.2 b_ll__n. H_gh-pr_c_s__n r_d_r _q__pm_nt w_ll m__s_r_ th_ h__ght _f w_t_r _n m_r_ th_n 90 p_r c_nt _f __rth's s_rf_c_. _t w_ll s_rv_y $m_{ll_ns} = f_{lk_s}, s_{w_{ll}} = s_{ll_ns} = 2.1$ _f r_v_rs. Sc__nt_sts w_II _d_nt_fy p_t_nt__I _r__s _f $w_t_r \mid_s th_t c_l d thr_t_n \mid_c_l p_p_l_t_ns_nd$ $c_stl_n_s. \ N_S_ \ s_d \ SW_T \ _s \ _ \ m_rk_d \ t_chn_l_g_c_l$ _pgr_d_ fr_m _ts pr_d_c_ss_rs. _ sp_k_sp_rs_n s__d: "SW_T w_II g_v_ _s _ t_n-f_Id _mpr_v_m_nt _n th_ [_cc_r_cy] _nd sp_t__l r_s_l_t__n _f __r m__s_r_m_nts _f w_t_r h__ght." _t w_II h_lp sc__nt_sts t_ b_tt_r _nd_rst_nd, "th_ cr_t_c_l r_l_ th_ _c__ns pl_y _n cl m t ch ng ".

PUNCTUATE THE TEXT AND ADD CAPITALS

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

a usfrench satellite has been launched with a mission to map all the worlds

oceans lakes reservoirs rivers and other waterways the satellite has been

dubbed swot surface water and ocean topography it went into space just

before dawn on friday scientists hope data from the satellite will help them

to monitor how climate change is adversely changing water levels the us

broadcaster pbs said the satellite is needed more than ever as climate

change worsens droughts flooding and coastal erosion a nasa spokesperson

spoke of the missions importance she said its a pivotal momentwere going

to see earths water like weve never seen it before

the swot satellite is about the size of an suv sports utility vehicle it took 20

years to develop at a cost of 12 billion highprecision radar equipment will

measure the height of water on more than 90 per cent of earths surface it

will survey millions of lakes as well as 21 million kilometres of rivers

scientists will identify potential areas of water loss that could threaten local

populations and coastlines nasa said swot is a marked technological upgrade

from its predecessors a spokesperson said swot will give us a tenfold

improvement in the accuracy and spatial resolution of our measurements of

water height it will help scientists to better understand the critical role the

oceans play in climate change

Level 6 Satellite launched to map Earth's water – 19th December 2022

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PUT A SLASH (/) WHERE THE SPACES ARE

From https://breakingnewsenglish.com/2212/221219-swot-water-satellite.html

AU.S.-Frenchsatellitehasbeenlaunchedwithamissiontomapallthewo rld'soceans, lakes, reservoirs, rivers and otherwaterways. The satellite hasbeendubbedSWOT-SurfaceWaterandOceanTopography.Itwent intospacejustbeforedawnonFriday.Scientistshopedatafromthesatell itewillhelpthemtomonitorhowclimatechangeisadverselychangingwa terlevels.TheU.S.broadcasterPBSsaid:"Thesatelliteisneededmoreth anever, asclimate changeworsens droughts, flooding and coastalerosi on."ANASAspokespersonspokeofthemission'simportance.Shesaid:" It'sapivotalmoment....We'regoingtoseeEarth'swaterlikewe'venever seenitbefore. "The SWOT satellite is about the size of an SUV (sport sutilit yvehicle). Ittook 20 years to develop, at a cost of \$1.2 billion. High-prec isionradarequipmentwillmeasuretheheightofwateronmorethan90p ercentofEarth'ssurface. It will survey millions of lakes, as well as 2.1 milli onkilometresofrivers. Scientists will identify potential areas of waterlos sthatcouldthreatenlocalpopulations and coastlines. NASA said SWOT is amarkedtechnologicalupgradefromitspredecessors. Aspokesperson said: "SWOT will give usaten-fold improvement in the [accuracy] and sp atialresolutionofourmeasurementsofwaterheight."Itwillhelpscientis tstobetterunderstand,"thecriticalroletheoceansplayinclimatechang e".

FREE WRITING

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

ACADEMIC WRITING

Everyone needs to conserve water immediately. 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 story. Share what you discover with your partner(s) in the next lesson.
- **3. WATER:** Make a poster about water. Show your work to your classmates in the next lesson. Did you all have similar things?
- **4. WATER WARS:** Write a magazine article about reducing water consumption now to avoid future water wars. Include imaginary interviews with people who are for and against this.

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 water. Ask him/her three questions about it. Give him/her three of your ideas on how to conserve it. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

VOCABULARY (p.4)

1. С 2. е 3. f 4. а 5. h 6. 7. d 8. 9. i i 10. m 11. 1 12. k 13. n 14. h

TRUE / FALSE (p.5)

2 F 3 F 4 Т 5 F 6 Т Т

SYNONYM MATCH (p.5)

1.	g	2.	е	3.	а	4.	i	5.	С
6.	j	7.	f	8.	d	9.	h	10.	b

COMPREHENSION QUESTIONS (p.9)

PBS

90%

Coasts

\$1.2 billion

coastlines

10 times

Climate change

A pivotal moment

4.

5.

6.

7.

8.

9.

WORDS IN THE RIGHT ORDER (p.19)

1.	The USA and France	1.	A mission t

- to map all the world's oceans. Dawn 2.
- 2. It went into space just before dawn. 3.
 - 3. Scientists hope data from the satellite will help.
 - 4. How climate change is adversely changing water levels.
 - 5. A NASA spokesperson spoke of the mission's importance.
 - 6. Radar equipment will measure the height of water.
 - 7. Scientists will identify potential areas of water
 - 8. A marked technological upgrade from its predecessors.
 - 9. Give us a ten-fold improvement in the accuracy.
 - 10. Better understand the critical role the oceans play.

MULTIPLE CHOICE - QUIZ (p.10)

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

ALL OTHER EXERCISES

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