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Cardboard box solar cooker wins prize

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THE ARTICLE

A solar-powered cooker made from a cardboard box has won an international environment award. The Kyoto Box, the brainchild of designer John Bohmer, beat 300 other inventions. Mr. Bohmer won the top prize of $75,000 in the Financial Times Climate Change Challenge. The simple Kyoto Box costs just $5 to make. People can cook rice in it, bake bread and boil water. It is an extremely simple design. It is made from two boxes, one inside the other. The boxes are covered with black paint and silver foil, which trap the sun's heat. The Kyoto Box beat another cool idea to protect the environment – a food additive that stops cows passing wind. Scientists estimate that gas from animals makes up 20% of all greenhouse gasses.

Mr. Bohmer was delighted with his prize. He told reporters: "This is the simplest idea I could find." He added that his "straightforward solution" was actually "discovered 240 years ago." Bohmer hopes his invention will help three billion of the world's poorest people. He said: "We're saving lives and saving trees. I doubt if there is any other technology that can make so much impact for so little money." His invention really should make a big impact in poor countries. Millions of children die every year from drinking dirty water. The Kyoto Box will mean they can now drink boiled water and so get fewer diseases. It should also halve the amount of firewood people need for cooking. This will save two tones of carbon per family per year.

WARM-UPS

1. ENVIRONMENT: Walk around the class and talk to other students about the environment. 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.

> *solar power / cookers / cardboard boxes / inventions / simple designs / food additives / being delighted / solutions / saving trees / drinking water / firewood / carbon*

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

3. BEING GREEN: How can we help the planet? Complete this table. Talk about what you wrote with your partner(s). Change partners and share what you found out.

	Current problems	Invention / solution needed
Cooking		
Lighting		
Transport		
Use of paper		
Water		
Factories		

4. GREENHOUSE GASSES: Students A **strongly** believe we will eventually stop creating greenhouse gasses; Students B **strongly** believe there is no way we can do this, not in a million years. Change partners again and talk about your conversations.

5. INVENTIONS: With your partner(s), think of what new uses you could put these things to. Share your ideas with your partner(s).

- cardboard boxes
- old computers
- car tyres / tires
- books
- old mobile phones
- milk and juice cartons
- newspapers
- old batteries

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

BEFORE READING / LISTENING

1. TRUE / FALSE: Look at the article's headline and guess whether these sentences are true (T) or false (F):

a. A chef has won a cooking award by using the Sun's rays. T / F
b. There were 300 entrants in a competition to help the environment. T / F
c. A new invention allows people to boil water in a cardboard box. T / F
d. A fifth of all greenhouse gasses come from animals. T / F
e. The inventor said his idea was extremely difficult and complex. T / F
f. The invention could help billions of poor people. T / F
g. The inventor suggested his invention was great value for money. T / F
h. Families will now need to use much less firewood for cooking. T / F

2. SYNONYM MATCH: Match the following synonyms from the article:

1.	award	a.	effect
2	brainchild	b.	excellent
3.	extremely	c.	very
4.	cool	d.	prize
5.	estimate	e.	reduce by 50%
6.	delighted	f.	reckon
7.	straightforward	g.	unclean
8.	impact	h.	idea
9.	dirty	i.	simple
10.	halve	j.	overjoyed

3. PHRASE MATCH: Match the following phrases from the article (sometimes more than one. combination is possible):

1.	A solar-powered cooker made	a.	the sun's heat
2	Mr. Bohmer won the top	b.	all greenhouse gasses
3.	It is an extremely	c.	in poor countries
4.	trap	d.	delighted with his prize
5.	gas from animals makes up 20% of	e.	solution
6.	Mr. Bohmer was	f.	from a cardboard box
7.	straightforward	g.	firewood people need
8.	help three billion of the	h.	prize of $75,000
9.	make a big impact	i.	simple design
10.	halve the amount of	j.	world's poorest people

WHILE READING / LISTENING

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

A solar-powered cooker made from a cardboard box has won an international environment _____. The Kyoto Box, the brainchild of designer John Bohmer, _____ 300 other inventions. Mr. Bohmer won the top prize of $75,000 in the Financial Times Climate Change Challenge. The simple Kyoto Box costs just $5 to _____. People can cook rice in it, bake bread and boil water. It is an extremely _____ design. It is made from two boxes, one inside the other. The boxes are covered with black paint and silver _____, which trap the sun's heat. The Kyoto Box beat another cool _____ to protect the environment – a food additive that stops cows _____ wind. Scientists _____ that gas from animals makes up 20% of all greenhouse gasses.

simple

passing

beat

idea

award

estimate

make

foil

Mr. Bohmer was _____ with his prize. He told reporters: "This is the simplest idea I could find." He added that his "straightforward _____" was actually "discovered 240 years ago." Bohmer hopes his invention will help three billion of the world's _____ people. He said: "We're saving lives and _____ trees. I doubt if there is any other technology that can make so much _____ for so little money." His invention really should make a big impact in poor countries. Millions of children die every year from drinking _____ water. The Kyoto Box will mean they can now drink boiled water and so get _____ diseases. It should also _____ the amount of firewood people need for cooking. This will save two tones of carbon per family per year.

poorest

fewer

dirty

delighted

saving

halve

solution

impact

LISTENING: Listen and fill in the spaces.

A solar-powered cooker made from a cardboard _____ international environment award. The Kyoto Box, the brainchild of designer John Bohmer, beat 300 other inventions. Mr. Bohmer _____ $75,000 in the Financial Times Climate Change Challenge. The simple Kyoto Box costs just $5 to make. People _____, bake bread and boil water. It is _____ design. It is made from two boxes, one inside the other. The boxes are covered with black paint and silver foil, which trap the sun's heat. The Kyoto Box beat another _____ the environment – a food additive that stops cows passing wind. Scientists _____ from animals makes up 20% of all greenhouse gasses.

Mr. Bohmer was delighted with his prize. He told reporters: "This is the _____ find." He added that his "straightforward solution" was actually "discovered 240 years ago." Bohmer hopes _____ help three billion of the world's poorest people. He said: "We're saving lives and saving trees. _____ is any other technology that can make so much impact for so little money." His invention really should _____ in poor countries. Millions of children die every year from drinking dirty water. The Kyoto Box will mean they can now drink boiled water and so _____. It should also halve the amount of firewood people need for cooking. This will save two tones of carbon _____.

AFTER READING / LISTENING

1. WORD SEARCH: Look in your dictionaries / computer to find collocates, other meanings, information, synonyms … for the words **'solar'** and **'power'**.

solar	**power**

- 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:

• award • beat • bake • design • trap • estimate	• find • added • lives • should • mean • per

STUDENT ENVIRONMENT SURVEY

Write five GOOD questions about the environment 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.

ENVIRONMENT 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 'environment'?

c) What do you think of the solar cooker idea?

d) Do you think $75,000 is a good prize for this invention?

e) What was the last brainchild you had?

f) What do you think of the design of the Kyoto Box?

g) Why do you think this invention is called the Kyoto Box?

h) Do you have any cool ideas to help save the environment?

i) How else can we stop animals from adding to greenhouse gasses?

j) What are the things you do that add to global warming?

ENVIRONMENT DISCUSSION

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

a) Did you like reading this article?

b) Do you think the simplest ideas are always the best?

c) Why do you think this idea took so long to be turned into something practical?

d) Do you think this idea will really help three billion people?

e) Do you agree that no other invention will make such a big impact for so little money?

f) What are the biggest environmental problems we face?

g) Are you happy with what your government is doing to help the environment?

h) Why do you think millions of people still drink dirty water today?

i) What do you do to save trees?

j) What questions would you ask designer John Bohmer?

LANGUAGE

A solar-powered cooker (1) _____ from a cardboard box has won an international environment award. The Kyoto Box, the brainchild of designer John Bohmer, (2) _____ 300 other inventions. Mr. Bohmer won the top prize of $75,000 in the Financial Times Climate Change Challenge. The simple Kyoto Box costs just $5 to make. People can cook rice in it, bake bread and boil water. It is an (3) _____ simple design. It is made from two boxes, one inside the (4) _____. The boxes are covered with black paint and silver foil, which trap the sun's (5) _____. The Kyoto Box beat another cool idea to protect the environment – a food additive that stops cows passing wind. Scientists estimate that gas from animals makes (6) _____ 20% of all greenhouse gasses.

Mr. Bohmer was delighted (7) _____ his prize. He told reporters: "This is the simplest idea I could find." He added that his "straightforward solution" was actually "discovered 240 years ago." Bohmer hopes his invention will help three billion (8) _____ the world's poorest people. He said: "We're saving (9) _____ and saving trees. I doubt if there is any other technology that can make so (10) _____ impact for so little money." His invention really should make a big impact in poor countries. Millions of children die every year (11) _____ drinking dirty water. The Kyoto Box will mean they can now drink boiled water and so get fewer diseases. It should also halve the amount of firewood people need for cooking. This will save two tones of carbon (12) _____ family per year.

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

1.	(a)	make	(b)	made	(c)	makes	(d)	making
2.	(a)	defeat	(b)	lose	(c)	beat	(d)	won
3.	(a)	extremely	(b)	extreme	(c)	extremity	(d)	extremes
4.	(a)	another	(b)	others	(c)	the other	(d)	other
5.	(a)	heating	(b)	heater	(c)	heat	(d)	heated
6.	(a)	up	(b)	at	(c)	to	(d)	down
7.	(a)	to	(b)	for	(c)	from	(d)	with
8.	(a)	at	(b)	of	(c)	to	(d)	by
9.	(a)	lifetime	(b)	alive	(c)	lifestyle	(d)	lives
10.	(a)	many	(b)	more	(c)	much	(d)	most
11.	(a)	for	(b)	from	(c)	of	(d)	to
12.	(a)	per	(b)	for	(c)	par	(d)	pre

WRITING:

Write about **the environment** for 10 minutes. Correct your partner's paper.

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 the Kyoto Box. Share what you discover with your partner(s) in the next lesson.

3. ENVIRONMENT: Make a poster about different environmental problems. How are they caused? How can they be solved? Show your work to your classmates in the next lesson. Did you all have similar things?

4. WATER: Write a magazine article about why in the 21st century, billions of people do not have access to clean drinking water. Include imaginary interviews with the leader of a very rich country, and someone who has no clean water to drink.

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 designer John Bohmer. Ask him three questions about his invention. Give him three ideas on what he should invent next to save the environment. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

TRUE / FALSE:

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

SYNONYM MATCH:

1.	award	a.	prize
2	brainchild	b.	idea
3.	extremely	c.	very
4.	cool	d.	excellent
5.	estimate	e.	reckon
6.	delighted	f.	overjoyed
7.	straightforward	g.	simple
8.	impact	h.	effect
9.	dirty	i.	unclean
10.	halve	j.	reduce by 50%

PHRASE MATCH:

1.	A solar-powered cooker made	a.	from a cardboard box
2	Mr. Bohmer won the top	b.	prize of $75,000
3.	It is an extremely	c.	simple design
4.	trap	d.	the sun's heat
5.	gas from animals makes up 20% of	e.	all greenhouse gasses
6.	Mr. Bohmer was	f.	delighted with his prize
7.	straightforward	g.	solution
8.	help three billion of the	h.	world's poorest people
9.	make a big impact	i.	in poor countries
10.	halve the amount of	j.	firewood people need

GAP FILL:

Cardboard box solar cooker wins prize

A solar-powered cooker made from a cardboard box has won an international environment **award**. The Kyoto Box, the brainchild of designer John Bohmer, **beat** 300 other inventions. Mr. Bohmer won the top prize of $75,000 in the Financial Times Climate Change Challenge. The simple Kyoto Box costs just $5 to **make**. People can cook rice in it, bake bread and boil water. It is an extremely **simple** design. It is made from two boxes, one inside the other. The boxes are covered with black paint and silver **foil**, which trap the sun's heat. The Kyoto Box beat another cool **idea** to protect the environment – a food additive that stops cows **passing** wind. Scientists **estimate** that gas from animals makes up 20% of all greenhouse gasses.

Mr. Bohmer was **delighted** with his prize. He told reporters: "This is the simplest idea I could find." He added that his "straightforward **solution**" was actually "discovered 240 years ago." Bohmer hopes his invention will help three billion of the world's **poorest** people. He said: "We're saving lives and **saving** trees. I doubt if there is any other technology that can make so much **impact** for so little money." His invention really should make a big impact in poor countries. Millions of children die every year from drinking **dirty** water. The Kyoto Box will mean they can now drink boiled water and so get **fewer** diseases. It should also **halve** the amount of firewood people need for cooking. This will save two tones of carbon per family per year.

LANGUAGE WORK

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