

The PowerPot

1. Warmer

Imagine that you're on a camping trip out in the wild, far away from any buildings with power sockets. You can't connect any equipment to the power supply. Your mobile phone needs recharging. Luckily, you and your friends have invented a device that will let you recharge it. What technology is it based on? What spare parts do you carry with you?

2. Keywords

Study the keywords and definitions. Which words are the hardest? Focus on them!

1. have to (v) needing to do something.
2. sort of (n) kind of
3. component (n) part of something
4. difference (n) what makes one thing NOT similar to another
5. indicator (n) something that points out information
6. ready (adj) set for action; prepared
7. thermoelectric (adj) electricity produced by heat
8. overcome (v) succeed despite difficulties
9. regulate (v) control or adjust using rules or systems
10. modify (v) change something
11. prevent (v) stop something from happening
12. improve (v) make better.
13. module (n) part of a system that can be added, removed or replaced
14. even (adv) used for emphasis; to make a meaning stronger (German: noch)
15. development(s) (n) changes that occur in an organism as it grows
16. energy (n) ability to do work
17. array (n) a group of numbers that are arranged in order, often put into column and rows
18. weigh (v) /wei/ to measure how heavy something is

3. Watch Video

Read these questions.

1. What technology is the PowerPot based on?
2. What components is it made of?
3. How does it work?
4. What devices does it provide power for?
5. What problems did the inventors have to overcome?
6. Which users and what markets do the inventors want to reach?
7. Is there more than one model? What for?
8. Kickstarter is a crowd-funding platform. Did this invention get funding?
9. Find out at least one more fact about this invention by googling 'PowerPot'.
10. Would you buy one? Why or why not?

Now watch the video, and answer the questions.

<https://www.kickstarter.com/projects/david-toledo/the-powerpot/>

Grammar Practice

Tenses

The simple present is used in 3 cases.

- a. General truths: "The sun rises in the east."
- b. Habits: "I drink coffee every morning."
- c. Conditions: "Today is sunny."

How is the simple present used in the sentence(s) below?

1. To use the PowerPot, you simply pour in water, place the pot on a fire, and plug in whatever you want to power.
2. It is portable, compact, and weighs about half a pound.
3. It works as long as you can create a big enough temperature difference between the bottom of the pot and the contents inside.
4. But if you need more power, we're also offering this 10 watt model, which will power larger devices, such as tablets.
5. Now you don't have to worry about having a pile of batteries to keep all your electronic gizmos going, or hope that the sun will be shining when you need it.
6. You can charge up your headlamp at night while you cook up some Ramen, and run speakers all evening powered by campfire.
7. You can get one for yourself or your loved ones, and the next time the power goes out, you can use a gas stove or even a candle to charge your cellphone.
8. Most of them build fires every day for cooking, and the PowerPot would fit into their daily routine, saving them time and money otherwise spent searching for power.

Word Roots & Stems

Rule: The suffix -ly changes an adjective into an adverb: a slow driver -> drive slowly.

Identify the word that ends with -ly in each sentence and underline it.

1. It is essentially a backpacking pot that makes electricity as you heat water inside of it.
2. First we needed a power regulator to safely charge electronic devices.
3. You can buy them online , and what they do is take a temperature difference, and turn it directly into electricity with no moving parts.

Fill in the blanks below following the models.

angrily	(angry - y + i) + ly	He spoke angrily to his enemies.
correctly	correct + ly	Answer correctly and you could win a million euros!
absolutely	_____	_____
silently	_____	_____
softly	_____	_____

Vocabulary Practice

Use the words in the box to complete the sentences.

have to	sort of	components	difference	indicator	ready
thermoelectric	overcome	regulated	modify	prevent	improve
modules	even	development	energy	array	weighs

1. He worked hard to _____ his grades.
2. She _____ her lack of education and became a famous inventor.

3. The video game has different _____ for sports games, driving games or flying games.
4. There are many _____s between school and work.
5. The locked door _____s fumes from escaping from the fume cabinet.
6. A car stereo has three _____: an amplifier, a CD player and speakers.
7. Dinner will be _____ in twenty minutes.
8. It is so easy that _____ a child can do it.
9. Red skies at sunset are an _____ of good weather in the morning.
10. Sports statistics are often put into _____s where they are organized into columns and rows.
11. I _____ leave at 4 o'clock or I will be late for my appointment.
12. The fruit seller always _____ the fruit.
13. Organisms obtain _____ through the process of cellular respiration.
14. In humans, the most dramatic physical _____ takes place in the teenage years.
15. The thermostat _____ the temperature in the room.
16. We are looking for a different _____ solution.
17. The bus was _____ed to allow wheelchairs on board.

Matching

Write the letter of word that matches the definition on the line.

A have to (v)	1. _____ Make better.
B sort of (n)	2. _____ Succeed despite difficulties.
C component (n)	3. _____ Denoting electricity produced by heat.
D difference (n)	4. _____ A part of a system that can be added, removed or replaced.
E indicator (n)	5. _____ What makes one thing NOT similar to another.
F ready (adj)	6. _____ Stop something from happening.
G thermoelectric (adj)	7. _____ A part of something.
H overcome (v)	8. _____ Set for action; fully prepared.
I regulate (v)	9. _____ Used for emphasis, to make a meaning stronger.
J modify (v)	10. _____ Something that points out information.
K prevent (v)	11. _____ A group of numbers that are arranged in order.
L improve (v)	12. _____ Ordered or needing to do something.
M module (n)	13. _____ To measure how heavy something is.
N even (adv)	14. _____ Something that drives work.
O developments (n)	15. _____ The changes that occur in an organism as it grows.
P energy (n)	16. _____ To control or adjust with rules or systems.
Q array (n)	17. _____ A kind.
R weigh (v)	18. _____ To change something.

Word families

Which word fits?

1. Green is very different/difference from red.
2. Still, some people can't different/differentiate between red and green.
3. On this form we have to indicate / indication our name and address.
4. Many work procedures have been modified/ modification.
5. We have improved/improvement procedures.
6. The weight (wert) / weigh (wei) of this case is 1.25 kg.

Transcript

Hi Kickstarters, I'm Paul ... and I'm David ... and this is our invention, the PowerPot.

The PowerPot is a portable thermoelectric generator that creates energy for your USB devices as you heat water inside of it. Please enjoy our video.

Development of the PowerPot began in 2007, when we got our hands on some thermoelectric modules. You can buy them online, and what they do is take a temperature difference, and turn it directly into electricity with no moving parts.

We began with taking old pots from my mom, and modifying them to suit our needs. Eventually we developed a pot that produced a useable amount of power even if it wasn't super pretty. After designing a working generator, we still had problems to overcome. First we needed a power regulator to safely charge electronic devices. We also had to fire-proof components and improve its overall portability. All these developments led us to the current PowerPot, which we need your help to scale production. It's essentially a backpacking pot that makes electricity as you heat water inside of it. To use the PowerPot, you simply pour in water, place the pot on a fire, and plug in whatever you want to power. Charging will begin within seconds.

The PowerPot is a 5 watt generator that will put up to an amp into your USB devices. All the cabling is fire resistant, and we've encapsulated all the electronic parts to prevent them from getting wet and dirty. The PowerPot has a regulated USB output with an LED indicator to conveniently charge your cellphone, mp3 player, and much more. It's portable, compact, and weighs about half a pound. You can put everything you need inside the pot and have a charger that is ready to go anytime, anywhere. It works as long as you can create a big enough temperature difference between the bottom of the pot and the contents inside. So you can get creative, like using a geothermal hot springs and some snow.

The PowerPot is a useful addition to any sort of adventure. Now you don't have to worry about having a pile of batteries to keep all your electronic gizmos going, or hope that the sun will be shining when you need it. You can charge up your headlamp at night while you cook up some Ramen, and run speakers all evening powered by campfire. The PowerPot is also great for home preparedness. You can get one for yourself or your loved ones, and the next time the power goes out, you can use a gas stove or even a candle to charge your cellphone.

There are many people in developing nations who don't have reliable access to electricity at home, but still use cellphones. Most of them build fires everyday for cooking, and the PowerPot would fit into their daily routine, saving them time and money otherwise spent searching for power.

As a backer of our project, not only can you preorder yourself the PowerPot, but you can also preorder a PowerPot for someone around the world who needs a USB charger powered by fire. We're also offering an array of gadgets including batteries, lights and stoves.

This 5 watt model works great for charging handheld devices such as phones and mp3 players. But if you need more power we're also offering this 10 watt model, which will power larger devices, such as tablets. Please back our project now. Thanks for watching.