

What do you plan to research for your project?

Print

Problem: I am going to create a cooling system for a backpack.

Topics related to the problem:

- 1) *Why do people sweat?*
- 2) *What is sweat?*
- 3) *What ventilations systems have already been created?*
- 4) *What are backpacks?*
- 5) *What is a cooling system?*

Star three topics you will research during research time

ONE MAIN IDEA I SHOULD RESEARCH IS... why do people sweat?

Sometimes heavy sweating is normal. You may sweat a lot when you exercise, when you are too hot, or when you are frightened.

Your body works best when its temperature is about 98.6°F (37°C). When your body gets hotter than that, your brain doesn't like it — it wants your body to stay cool and comfortable. So the part of your brain that controls temperature, called the hypothalamus (say: hi-po-THAL-uh-mus), sends a message to your body, telling it to sweat.

Website Address (copy exactly):

<https://stanfordhealthcare.org/medical-conditions/skin-hair-and-nails/excessive-sweating/causes.html>

<https://kidshealth.org/en/kids/sweat.html>

A SECOND MAIN IDEA I SHOULD RESEARCH IS... what is sweat?

Sweating is your body's way of cooling down.

Sweat is mainly water, but it also contains some salts.

Website Address (copy exactly):

<https://stanfordhealthcare.org/medical-conditions/skin-hair-and-nails/excessive-sweating/causes.html>

<https://www.betterhealth.vic.gov.au/health/conditionsandtreatments/sweat#bhc-content>

A THIRD MAIN IDEA I SHOULD RESEARCH IS... what is a cooling system?

A cooling system is defined as a mechanism that utilizes air or water as a heat exchange medium to remove heat from an environment

Website Address (copy exactly):

<https://www.sciencedirect.com/topics/physics-and-astronomy/cooling-system>

FIVE WORDS I NEED TO KNOW FROM MY RESEARCH ARE...

1)Word: Perspiration

Definition: a saline fluid secreted by the sweat glands : **sweat**

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.merriam-webster.com/dictionary/perspiration>

2)Word: Backpack

Definition:a pack (see [pack entry 1 sense 1a](#)) that usually has two shoulder straps and is carried on the back: such as

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.merriam-webster.com/dictionary/backpack>

3)Word:Sweat

Definition: to excrete moisture in visible quantities through the openings of the sweat glands :

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.merriam-webster.com/dictionary/sweat>

4)Word: Hypothalamus

Definition: a basal part of the diencephalon that lies beneath the thalamus on each side, forms the floor of the third ventricle, and includes vital autonomic regulatory centers

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.merriam-webster.com/dictionary/hypothalamus>

5)Word: Health

Definition: the general condition of the body

Website Address (copy URL from definition website exactly – No ‘Google Search’):

<https://www.merriam-webster.com/dictionary/health>

Many people have to carry backpacks around all day. Backpacks make lots of people sweaty especially when it gets really hot outside. When you sweat it sometimes bleeds through cloths and nobody wants it to look like the shirt went through a marathon. Cooling systems make everybody feel better. Creating a backpack that can provide cooling to the person will benefit the market because people would love to have a backpack that doesn't make them sweat.

"Sometimes heavy sweating is normal. You may sweat a lot when you exercise, when you are too hot, or when you are frightened." According to Stanford health people can sweat in many situations not just from doing exercise. "Your body works best when its temperature is about 98.6°F (37°C). When your body gets hotter than that, your brain doesn't like it — it wants your body to stay cool and comfortable. So the part of your brain that controls temperature, called the hypothalamus (say: hi-po-THAL-uh-mus), sends a message to your body, telling it to sweat." According to Kids Health your brain always wants to stay a certain temperature and it is crucial to keep it a certain level. This is important because now the cooling backpack has to keep the body at a certain temperature to keep the subject from sweating and overheating.

Sweating also known as perspiration happens when you sweat excessively. "Sweating is your body's way of cooling down." As stated in the article by Stanford Health. This shows that even though you feel very hot and overheated the sweating is you body making an effort to get you back to a normal temperature. "Sweat is mainly water, but it also contains some salts." As stated in the article by Better Health. This information tells us that even though most of sweat is water some is salt which means that when you sweat your body is also pushing out unwanted chemicals.

Everybody loves a good ac unit that keeps them cool throughout the day. "A cooling system is defined as a mechanism that utilizes air or water as a heat exchange medium to remove heat from an environment." Based on the information from the website a cooling system is a mechanical device that takes air from outside cools it down and sends it back out to cool a object or subject down. Cooling systems are usually used inside a building or to cool a machine or engine of some sort. Cooling systems are beneficial during warmer months to keep people cool.

Three facts learned are people sweat due to exercise or uncomfortable situations, sweat is the body's way of cooling you down, and that a cooling system takes air and spits it back out cooler. Sweating is a normal thing to do and helps your body. Cooling systems help get our brains back to the preferred temperature. Backpack that provides cool air and prevents sweating will benefit people because they won't get overheated.

Works Cited

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