

Slide Show of Posters

In Notability Highlight Ideas that seem to make sense and record on green sheets—what we think right now!

1a. What happens in a chemical reaction?

New substances are made.

• Chemicals + substances are combined.

• Chemicals combine and make an concoction

• Substances mix together to make a product

• Changes

• Molecules split and re-combine

• Molecules

• Energy is released to make new molecules.

1b. What are some examples of chemical reactions?

Baking a cake.

Freezing Water

Baking soda and vinegar combined blowing up a balloon

• explosions

• hot water

• Babies - How are Babies made

• Baking cookies

• Storms

• Fire

• Sparks

• TNT

1c. What are the signs of a chemical reaction?

Bubbling,

Color change (food color)

temperature change

foaming

changing into liquid, gas, or solid

• Foil turning different into a different color after being dropped into copper chloride

• Bubbles

• Steam

• Boil

• Texture

• Weight

• Smell?

• changes

• fog

2a. What are several reasons doctors recommend regular exercise?

- keeps you healthy
- keeps you fit
- healthy mentally
- Lose weight
- Live longer
- Strength
- healthy
- apple-a-day keeps the doctor away
- Physical Therapy
- So you live a healthy life
- So you don't get fat and on to the my 60 lb life = shwa
- Without exercise, organs stop working then you DIE

2b. How is exercise related to breaking down fat?

- burns calories
- burns carbs
- You burn calories by bringing up your heart rate and making things work harder
- When you burn calories, it causes the parts in your body to break down overtime.
- It burns calories
- Burns calories
- ←
-

3a. Compare the amount of energy you are using when you are exercising to the amount used when resting.

When we are moving we are using ^{not} EE and KE but when we are laying down we are not using as much KE & EE.



We're moving when we exercise, which means we use more energy than we aren't moving

NOT using KE which leads to not using all of the other energies when resting.

• You move and don't move

• losing calories/fat

• more energy used when exercising than resting

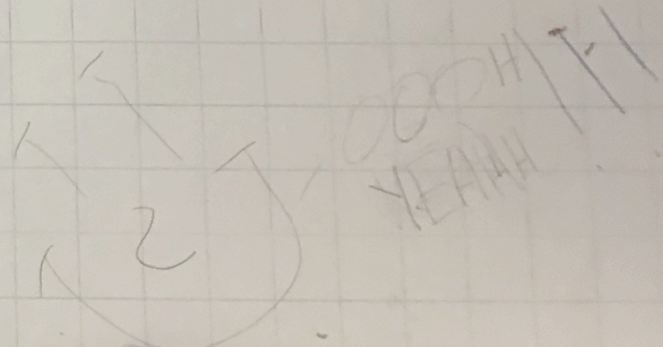
3b. Why is there a difference?

- Because your not using energy
- Because your not using your energy
- There is not as much energy being burned
- your not using energy because your not using your muscles or working anything

• Cause one is slow and one is

WOW!! ya know? WOW

• Get skinner/healthier?



4a. Why does your body need more oxygen/food when you are exercising than when you are resting?

- Red blood cells need more oxygen to convert food nutrients into more energy when you are exercising.
- Your muscles are ~~using~~ ^{using} more.
- Your heart needs a lot of oxygen because it's working a lot.
- Because you are working so your lungs are pumping in air to your lungs.
- Your body needs more oxygen and energy because you're working twice as hard and burning all your energy. You need more oxygen because you're breathing heavier.
- Because you have ~~more~~ ^{more}.
- To be able to inhale.
- Burning calories ~~more~~ ^{more} calories.

4b. What do you produce more of when you are exercising?

- You produce more CO_2 when you're exercising because you're breathing faster and more.
- Water Vapor from sweat.
- Produce more TE.
 - Blood due to increased heart rate.
 - Kinetic Energy from moving.
- Sweat.
- Smell.
- Sweat.
- Odor (Stink).
- CO_2 .

5A

(17)

5B

(18)

5a. What happens during energy conversions?

- One type of energy increases while the other decreases.
- They change (energy)
- Your energy converts into you moving and burning all your calories.
- New energy is being produced

5b. What are some examples of energy conversions?

1 = Food turns into energy

• KE to GE.

② $GE \rightarrow KE \rightarrow TE \rightarrow EE$

• $EE \rightarrow KE \rightarrow GE$

$EE \rightarrow GE$

$PE \rightarrow KE$

$KE \rightarrow GE \rightarrow TE$

• $GE \rightarrow KE \rightarrow TE \rightarrow EE$

• $PE \rightarrow GE \rightarrow KE \rightarrow EE$

• $GE \rightarrow KE \rightarrow EE$

8A

(29)

8B

(30)

T1. What is temperature a measure of?

• The measure of temperature is Thermal Energy ✓

• Heat

• Cold

• Warm

• Water

• Thermal Energy amount

• got no Ideas

• Fog

• Dew

• rain

• Te

T2. What is "normal" human body temperature? Do you think a worm has a similar body temperature? Why?

• Normal human body temperature 96-98°F ✓

• No, because worms are smaller than us so they can't store as much heat as us.

• No because they are smaller and live in different habitats so are designed for different temperatures

• No they live in the dirt, we don't

• No lives in different habitat and adapts differently.

• No they have smaller/shallow bodies & they live underground so they don't get as much TE as humans

• Same because humans and worms are warm blooded

NO because it's underground

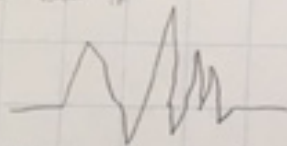
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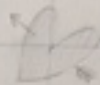
C1. What have you learned or heard about Carbon Dioxide (CO_2)?

1. You breathe it out
- It's your body's waste product
 - You breathe it in
 - We convert it to oxygen

you release it



• Carbon Dioxide is a type of Pollutant gas that machines make like cars or airplanes like an oven



C2. What body system(s) relate to (CO_2)? How?

7

- Breathing out you breath out CO_2

✓ Lungs because you breathe with them ✓

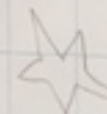
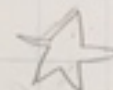
- Respiration

Lungs breath it

Breathing

Brain, receives O_2 / gets CO_2 Lungs

- Respiratory System



P1. Look at graph, what is the relationship between "steps" and calories? Why?

Why do you think weight is included? →



It is a proportional relationship.

When she goes 5000 steps
Calories burned are 500
So it is linear

Someone with a lower body weight
burns less calories than someone
with a larger body weight.

2 people walk same distance but
bigger person work harder than
short person

People with different weights need/burn more calories.
The heavier you are the more energy you need to use
to carry your weight.

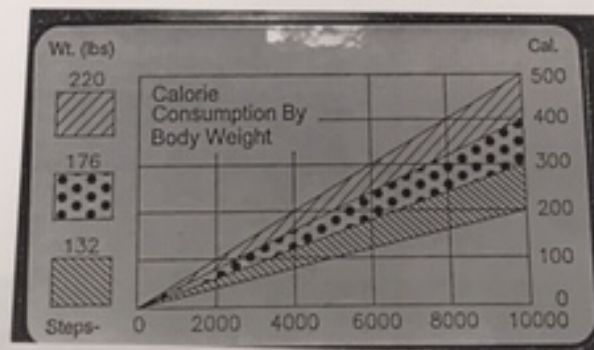
Carrying on back 90% weight

They're bigger

People with different weights have different
relationships

bigger people worked than
little people.

Determining calories from steps: Use
the graph on the pedometer



9A

(33)

9B


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H1. When you take your pulse what are you detecting?

* Your heart rate ✓

* Heart beat

* How fast the heart beat is

 Your BPM

pumping blood

* Your recording how fast your blood is moving through your body.

* BPM

H2. What body system(s) relate to your heart rate?

* Lungs

* Kidneys

* Veins

Van

* Circulatory System ✓

* Cardiovascular System ✓

* Brain

* Veins

* Lungs

* Respiratory system

* Muscles

* Hands

* Legs

* Cardiovascular system

* Red blood cells

* Heart

H3. What are things that impact your heart rate?

* Running

* Exercise

* Anxiety

* Weight

* Blood loss

* Temperature (in hypothermia)

* Elevation

* Sitting down

* Breathing/Taking over breaths

* Depression

* Nothing on the clock

* Electricity

* Stress/Physical exertion