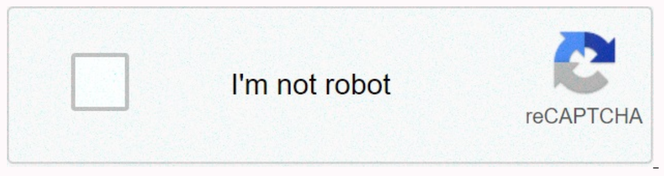

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Cellular respiration in germinating peas lab answers

About Laboratory 5 Cell Res breathing Cell res breathing is a procedure that alters the chemical energy of organic molecules into a type that can be used by organisms. Glucose can be fully oxidized when a suitable amount of oxygen is present. Cell res breathing C6H12O6 + 6O 2 -> 6CO 2 + 6H2O + equation for energy carbon dioxide is formed as oxygen is used. The pressure caused by C02 may cause the change to be cancelled due to oxygen consumption. To eliminate this problem, a chemical is added that selectively removes C02. Potassium hydroxide will react chemically with carbon dioxide by the following equation: C02 + 2 KOH -> K2CO3 + H20 breathing is a system used to measure cell res breathing. The pressure change of the respiratory home is directly proportional to the change in the amount of gas in the respiratory home, unless the volume and temperature of the respiratory resumetter changes. To determine the consumption of oxygen in two different respiratory system, it is possible to reach equilibrium in both respiratory system. A number of physical laws relating to gas are important to understand how the equipment used in this exercise works. The law states summarized in the General Gas Act: PV = nRT where: pressure of the number of molecules of P-gas V-gas R-gas constant T; In this experiment, the temperature of the gas hypothesis is much higher than that of cell resystwhile in germs peas, both trillions and non-germs. The cool temperature of other water wells makes it much slower on three breathing system. Materials needed for water baths, thermometers, masking tapes, washers, beads, indessesia peas, non-esque peat, beakers, graduation cylinders, ice, paper, pencils are needed in the laboratory. Start the experiment by setting two water trillions at room temperature and the other at 10 degrees Celsius. Next, look for the amount of peas, peas and beads and beads that are not indesessed alone. Repeat this step for another set of peas and beads. Assemble six breathing system to place enough KOH pellets to cover the bottom of the respiratory system. Place an absorbent cotton swab over the KOH pellets in each spifilometer and add the peas and beads. Place one set of breathing water in a room temperature water bowl and the other in a 10-degree water bowl. Slightly increase the breathing system and keep on both sides with masking tape for 5 minutes. Then lower the breathing system to the trillions and do readings at intervals of 5, 10, 15, 20, 25 and 30 minutes. Write the data to the table. Data: Question 1. In this activity, we are investigating the effects of insanity and indeerity and cold temperatures for rain and warm temperatures versus breathing rates. The peas that have been eddy should have more oxygen than those that do not. Peas that are indessed in warm temperatures Consumes more oxygen than peas that are singing in cold temperatures. 2. This activity use multiple controls. Identifies three or more controls and explains the purpose of each control. The water flow, held at a constant temperature of KOH, is the same for all breathing system 3, all tube equilibrium times. The results of the revised difference columns for inges and dry peas are analyzed in graphs at both room temperature and 10 degrees Celsius. 4. Describe and explain the relationship between the amount and time of oxygen consumed. The amount of oxygen consumed was the largest to persse the peas in warm water. Oxygen consumption increases over time in the seeding of warheads. 5. Complete the following table: 6. Why modify the reading of peas with a reading of beads? Displays the actual rate at which cellular resyding occurs in peas. Beads were control variables. 7. Pea seeds explain the effect of indessing (non-ing) on breathing. In order to grow and grow, seeds need to be re-planted. 8. Explain the results shown in the sample graph in the lab manual. As the temperature increased, the enzymes were degeneration, inhibiting their carcinogenicity. 9. What is the purpose of KOH in this experiment? KOH pellets absorb carbon dioxide and form insoluble sediment 10. Why did the glass bottle have to be fully sealed around the stopper? The stopper at the top of the glass bottle had to be completely sealed to prevent gas from leaking from the glass bottle, so no water could get into the vial. 11. What results are expected when the respiratory rate of 25g reptiles and 25g mammals is compared at 100 degrees Celsius using the same experimental design? Explain the reasoning. I expect breathing to be higher in mammals because of warm blood. 12. If small mammals' breathing was studied at both room temperatures of 21 degrees celsius and 10 degrees Celsius, what results could be predicted? Explain the reasoning. Breathing will be higher at 21 degrees because the animal will need to increase its body temperature. 13. Explain why the water moved to the respiratory home pipette. The peas went through cellular breathing, but they took oxygen and released carbon dioxide. Carbon dioxide reacted with KOH, reducing the gas volume of pipettes and vials. The water has moved to the pipette because the pipette tip has been exposed to a water well. 13. Design experiments that examine cell breathing rates in peas that have been insoessed for 0, 24, 48 and 72 hours. What kind of results would you expect? For what? One of the following seeds, which did not begin to persing, set up four breathing system. seeds that have been planted during the day; seeds that have been planted for two days; Seeds that have been planted for 3 days. It is not expected that there is no oxygen used by the seeds Yet. Seeds that had been planted for 3 days will consume the most oxygen. Error analysis: The seal on the resyrest may not be completely out of air. The use of KOH pellets may have caused errors in absorbed carbon dioxide instead of liquids. The temperature may have been slightly out of the water's water system. Conclusion: Oxygen consumption in the respiratory system with ingring peas was greater than that in the respiratory system with non-ing peas. Breathing rate was also affected by temperature. Breathing occurred at a faster rate in the respiratory system in warm water. Introduction Cell res breathing is a series of enzyme-mediated reactions that release energy from carbohydrates. It starts with a saitosol with glycorisis and is completed within the mitochondria. Cell resystwhile can be summarized in the following equation: C6H12O6 + 6O2 → 6CO2 + 6H2O + 686 kilograms of energy/ mole glucose oxidative cell resydrhing cell resystwhile can be measured in several ways, but oxygen consumption is used in this experiment. To do this, we use a number of physical laws of gas, including equations where P means pressure, PV = nRT, volumeV, N for number of molecules, R for gas constant, and T for temperature. This law shows the many relationships between these factors and their impact on each other. This experiment compares the respiratory rate of indeation and non-ing peat. Balsa is the process of growth of seeds. It requires a lot of energy to break the seed coat and as this energy needs continues to grow increasing. The seed must access this energy to breathe so that the breathing rate increases. However, seeds that do not essu are dormant and rarely use breathing. In order for the seed to live, some breathing must occur. The rate of hypothetical cell res breathing will be greater in bullets than dry peas, and the temperature will have a direct effect on this rate. Material This laboratory needed room temperature bath and 10 °C bath, ice, 100 mL graduation cylinder, 50 baler peas, paper towel, 150mL of water, dry peas, beads, 6 vials with attached stopper and pipette, absorbent surface, 5 mL pipe, 15% KOH, non-absorbent tape. How room temperature bath and 10 °C bath were prepared. Graduation cylinders of 100 mL were filled with 50 mL of water. Then, 25 seede peas were added, the amount of water displaced was determined and recorded. The peas were then removed and placed on paper towels until needed at Respirometer 1. The graduated cylinder was refilled with 50 mL of water. 25 dry peas were added, and beads were added until the volume of the eddy peas was the same. Peas and beads were placed on paper towels for use in Respiromator 2. After re-filling the graduated cylinder with 50 mL of water, the beads were added until the volume was the same again. I have a warhead. They were removed and placed on paper towels for use in Respirometer 3. The procedure was repeated to prepare the beads for use in the second balsa peas, dry peas, beads, and Respirometer 4, 5, 6. The breathing system was first prepared next by placing a small ward of the absorption surface at the bottom of each respiratory tract and saturating it with 15% KOH so as not to get anything on the side of the glass bottle. Next, a piece of absorbent cotton is placed on a KOH-soaked side. The first set of peas, peas, beads, and beads have been added to Respirometer 1, 2, and 3. Then the second set was added to 4, 5, 6. Masking tape slings are created for each water ball, which can hold the breathing system out of the water during equilibrium. Breathing system 1, 2, 3 was placed in the room temperature bath, respirometer 4,5, 6 was placed in a 10 °C water bath. The breathing system equalised for 10 minutes and then was completely immersion in the water well. They examined the leak and took initial readings. Additional readings were then taken every five minutes for 20 minutes. Pm.