S2 Biology CELLS Glossary Answer sheet

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| word  | meaning |
| catalyst | A substance which speeds up the rate of a chemical reaction without being changed or used up. |
| enzyme | protein made by living cells that acts as a biological catalyst. |
| protein | type of molecule that enzymes are made of |
| catalase | catalyses break down of hydrogen peroxide into oxygen and water |
| phosphorylase | catalyses builds up of glucose-1-phosphate into starch. |
| amylase  | catalyses the breakdown of starch into maltose |
| specific | term to describe the ability of an enzyme to act on only one type of substrate like a lock and key |
| lock and key theory  | idea that an enzyme and substrate molecules fit together like a lock and a key |
| substrate | substance upon which an enzyme acts |
| synthesis reaction | building up large molecules from smaller ones |
| breakdown reaction | breaking down large molecules to form smaller ones |
| optimum | condition at which an enzyme is most active |
| denatured | state of an enzyme that has been permanently destroyed by being heated to a temperature of over 50oC |
| aerobic respiration | chemical process that releases energy from food using oxygen |
| fermentation | chemical process that releases energy from food without using oxygen |
| glucose | fuel food containing energy |
| yeast | single celled fungus  |
| oxygen | gas needed for efficient release of energy from food during aerobic respiration  |
| ethanol | waste product of fermentation in yeast |
| carbon dioxide | waste product of respiration |
| respirometer | equipment used to measure the rate of respiration in living organisms |
| diffusion | movement of a substance from an area where it is high in concentration to an area where it is low in concentration |
| cell membrane | cell structure that allows only small molecules to cross into or out of the cell |
| glucose, oxygen, carbon dioxide & water | molecules small enough to diffuse across the cell membrane |
| starch | molecule too large to pass across the cell membrane |
| chromosomes | thread-like structure carrying the genetic code, found in the nucleus |
| cell division | how cells make more copies of themselves for growth and repair |
| cancer | uncontrolled growth of cells |