Name: Date: Period:

Homework: Biochemistry and Plants

1. What are the following nutrients more commonly known as?

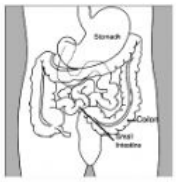
CARBOHYDRATES	AMINO ACIDS	LIPIDS
_____	_____	_____

2. What are the names of all of the molecules found in the cellular respiration equation?

Cellular Respiration

$$C_6H_{12}O_6 + 6O_2 \longrightarrow 6H_2O + 6CO_2 + energy$$

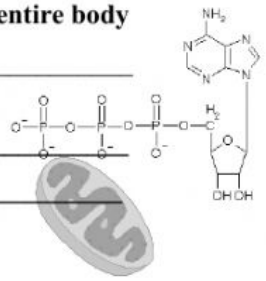
_____ _____ _____ _____



3. Which body system is responsible for breaking down and absorbing nutrients into your body?

_____

4. Which body system is responsible for distributing nutrients to the entire body once they have been absorbed? _____

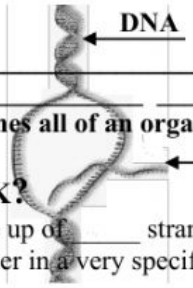


5. What molecule is made in the cells to be used as an energy source? _____

6. What organelle (part of the cell) is this molecule produced in? _____

7. Use your notes to fill in the following information.

Genetics



DNA is the _____ for your entire body.

The sequence of _____ _____ carries the information that determines all of an organisms physical traits.

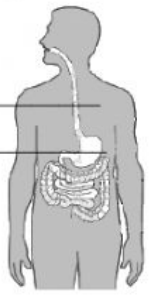
HOW DOES DNA WORK?

A double helix of DNA is made up of _____ strands of DNA. These strands line up their nitrogenous bases with each other in a very specific way:

_____ pairs with _____ _____ pairs with_____

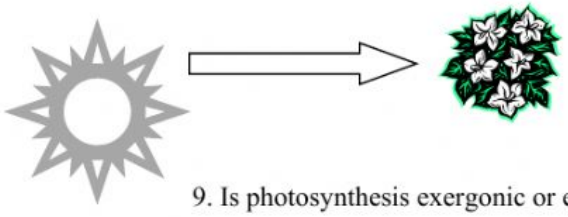
These strands are broken apart so that they can be _____ into RNA.

The RNA is then _____ into amino acids



8. Is digestion exergonic or endergonic? Explain your answer? _____

_____



9. Is photosynthesis exergonic or endergonic? Explain your answer? __

_____

10. What part of the plant is responsible for absorbing the sunlight that the plant needs for photosynthesis?

_____

11. What part of the plant is responsible for absorbing water that the plants needs to for every cell?

_____

12. Where exactly does carbon dioxide enter the plant? _____

_____

13. What organism helps plants by turning nitrogen into a form that the plants can absorb through their roots? _____

14. What would allow a plant to survive in an area where sunlight was very limited?

_____

_____

15. What would allow a plant to survive in a desert where water was scarce and often only found deep underground?

_____

16. What do you call of the waxy coating on the leaves that keeps water from evaporating from them?

_____