**PHOTOSYNTHESIS/RESPIRATION**

**Test Review Guide**

**DEFINE THE FOLLOWING TERMS:**

1. DNA 14. ATP
2. ADP 15. aerobic respiration
3. anaerobic respiration 16. photosynthesis
4. glycolysis 17. accessory pigments
5. lactic acid 18. enzyme
6. reactant 19. product
7. photon 20. pigment
8. energy 21. inorganic
9. potential energy 22. thylakoid
10. cristae 23. chemosynthesis
11. coenzyme 24. heterotroph
12. autotroph 25. oxaloacetic acid
13. ribulose bisphosphate

26. What factors does photosynthetic rate depend upon?

27. Why do leaves appear green?

28. Where does glycolysis occur?

29. Where does the Calvin cycle take place?

30. What are the 2 types of fermentation?

31. Where does the citric acid cycle occur?

32. Why/how does ATP store energy?

33. What is the equation for photosynthesis?

34. What is the equation for respiration?

35. What is the primary organic product produced as a result of photosynthesis?

36. Why are photosynthesis and respiration said to be complementary processes?

37. What is the correct order of light in the visible spectrum from longest to shortest wavelength?

38. The complete breakdown of 1 molecule of glucose by means of aerobic respiration results in the formation of how much ATP?

39. What is the role of NADP, FAD and NAD+?

40. What is the primary energy source for most organisms?

41. What is the primary purpose of the electron transport chain?

42. What is the primary purpose of the light dependent reactions?

43. What is the primary purpose of the light independent reactions?

44. What is the primary purpose of glycolysis?

45. What is the primary purpose of the citric acid cycle?

46. During the process of respiration, where does the electron transport chain occur?

47. During the process of photosynthesis, where does the electron transport chain occur?

48. How are the Calvin cycle and the citric acid cycle similar?

49. In the process of aerobic respiration, what serves as the final electron acceptor?

50. What is the importance of phosphoglyceraldehyde (PGAL)?