

### Photosynthesis Quiz A

- 1) Fill in the blanks below to make a complete balanced equation for photosynthesis. Include all numbers of molecules where applicable.

\_\_\_\_\_ + \_\_\_\_\_ -----> \_\_\_\_\_ + \_\_\_\_\_

- 2 \_\_\_\_\_ What color of light is not absorbed, that is, it is reflected out of a plant by green chlorophyll?
- 3 \_\_\_\_\_ What term means the stacks of green disks found in the chloroplast?
- 4 \_\_\_\_\_ The energy that chlorophyll has obtained from sunlight is carried from the light reactions to the dark reactions by what 2 energy carrier molecules?
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_ What is the name of the orange-colored plant pigment?
- 7 \_\_\_\_\_ What two main colors of light are absorbed and used by the chlorophylls?
- 8 \_\_\_\_\_
- 9 \_\_\_\_\_ What is the name of the experimental process that separates mixtures of substances on a strip of paper so that they can be identified?
- 10 \_\_\_\_\_ What are the two products of photosynthesis (See #1 above)?
- 11 \_\_\_\_\_ Plant pigments such as chlorophyll are able to absorb and store what kind of energy?
- 12 \_\_\_\_\_ In what plant organelle does photosynthesis occur?
- 13 \_\_\_\_\_ Which of the 2 main sets of reactions that occur during photosynthesis can occur either in light or when it is dark?
- 14 \_\_\_\_\_ Which of the 2 main sets of photosynthetic reactions can only occur in the presence of light?
- 15 \_\_\_\_\_ In what part of the chloroplast do the light independent reactions take place?
- 16 \_\_\_\_\_ In what part of the chloroplast do the light dependent reactions take place?
- 17 \_\_\_\_\_ If an object is purple, what color(s) does it reflect?
- 18 \_\_\_\_\_ If an object is red, what color(s) does it absorb?
- 19 \_\_\_\_\_ The energy carriers ATP and NADPH<sub>2</sub> give the energy they received from light to make what organic molecule during the dark reactions?
- 20 \_\_\_\_\_ What term means groups of plant pigments surrounding a central chlorophyll molecule on the surface of a thylakoids?

- 21\_\_\_\_\_What is the name of the yellow plant pigment?
- 22\_\_\_\_\_What is the name of the short-term energy storage molecules that all cells use?
- 23\_\_\_\_\_What term means “splitting of water”, the first step of the light dependent reactions of photosynthesis?
- 24\_\_\_\_\_Which plant pigment is the main photosynthetic pigment?
- 25\_\_\_\_\_What term means any plant pigment (like carotene) that is a helper pigment?
- 26\_\_\_\_\_What term means one individual disk within the grana?
- 27\_\_\_\_\_Name the enzyme that synthesizes ATP on the surface of the thylakoid during the light dependent reactions.
- 28\_\_\_\_\_What gas is released into the air during the light dependent reactions of photosynthesis?