

# Wind Energy for the 90's

NAME: \_\_\_\_\_

**The following questions are related to the video "Wind energy for the 90's". Answer all the questions as you watch the video. This will be collected and graded as 1 modular unit grade.**

1. List 3 different ways that we currently produce electricity in the U.S.? \_\_\_\_\_  
\_\_\_\_\_
2. What do the letters OPEC stand for? \_\_\_\_\_  
\_\_\_\_\_
3. Why do we need alternative ways of producing electricity, other than burning fuels? \_\_\_\_\_  
\_\_\_\_\_
4. What were early windmills designed and built to do? \_\_\_\_\_  
\_\_\_\_\_
5. When were the first electricity producing windmills built? \_\_\_\_\_  
\_\_\_\_\_
6. Where are 80% of the electricity producing windmills located in the U.S.? \_\_\_\_\_  
\_\_\_\_\_
7. Why is the San Geronio Pass such a great place for generating electricity from wind? \_\_\_\_\_  
\_\_\_\_\_
8. How many wind turbines are there in the San Geronio Pass? \_\_\_\_\_  
\_\_\_\_\_
9. What wind speeds allow today's wind turbines operate most efficiently? \_\_\_\_\_  
\_\_\_\_\_
10. What does an anemometer do? \_\_\_\_\_  
\_\_\_\_\_
12. Explain what the following parts of a wind turbine do :  

Hub	_____
Low Speed Shaft	_____
transmission	_____
generator	_____
13. What RPM (speed) is necessary to generate utility grade electricity? \_\_\_\_\_  
\_\_\_\_\_

14. Why would it be bad to place one windmill directly behind another? \_\_\_\_\_.
15. List 2 reasons why we do not have electricity producing windmills everywhere. \_\_\_\_\_.
16. List 2 down sides of nuclear power generation. \_\_\_\_\_.
17. List 2 down sides of wind power generation. \_\_\_\_\_.
18. List 2 positive effects of generating power from wind. \_\_\_\_\_.
19. What does "renewable energy" mean? \_\_\_\_\_.
20. List 3 renewable energy sources available to us in the world today. \_\_\_\_\_.

