5.4 Chemical Changes in the Environment pg. 128

Name: Date:

1. In our natural environment, where may one find matter?(4 marks)

2. Why can matter sometimes turn into something else and used over and over?(1 mark)

Chemical Changes in the Living Environment pg. 128

3. A. What is a spectacular example of chemical changes in the living world?(1 mark)

   B. A forest fire may be the end of a forest if it completely burns, but the beginning of what?(1 mark)

   C. What happens to the leaves and trunks of trees?(3 marks)

   D. What do you think happens to the new materials from (C)?(1 mark)

4. What is another example of a chemical changes in a forest, but happen slowly?(2 marks)

5. When things change chemically, such as trees in a forest, what happens to the matter that made them up?(1 mark)

Chemical Changes in the Non-Living Environment pg. 129

6. A. What chemical change happens to metals, such as iron, when it gets wet?(1 mark)

   B. Provide 3 examples of products that will rust after sitting in rain and snow over seasons?(3 marks)

7. What happens to iron when it rusts?(2 marks)

8. What other metals combine with oxygen in the air, and become a different colour from their original forms?(2 marks)

9. What are examples of materials we use that industries make through chemical changes?(2 marks)

10. In the mining industry, what separates valuable metals from rock?(1 mark)

Science Works pg. 131

11. What does R & D stand for?(1mark)

12. Scientists that work in R & D do what? (3 marks)

13. In applied R & D, how do they use the knowledge from research?(2 marks)

14. Chemistry plays a big role in materials science, because it provides information about what?(3 marks)

15. A. How does materials science help in the medical field? Provide 2 examples.(2 marks)

B. What sort of things have been developed and invented through materials science for the medical field?(4 marks)

16. What is Teflon commonly used for?(1 mark)

17. What is Dacron used for?(1 mark)

18. What is Gore-Tex used for?(1 mark)

19. What does space explorations need from material scientists?(3 marks)

20. A. What are some improvements found in commonly used materials such as paints?(1 mark)

    B. What materials is now in the paints to make this possible?(1 mark)

    C. What are the dangers of this material/chemical and what can it pollute?(2 marks)

21. A. What is a new material that Materials Scientists are working on that is safer, but still prevents rusting/corrosion?(1 mark)

    B. How does this new product work in reducing/stopping things from rusting?(2 marks)

22. Regarding electronics, what has scientists done over the years and what has this allowed?(2 marks)