

# Soil and Water Conservation

1. Do the following:

- a. Tell what soil is. \_\_\_\_\_  
Tell how it is formed. \_\_\_\_\_
- b. Describe three kinds of soil. 1 \_\_\_\_\_ 2 \_\_\_\_\_ 3 \_\_\_\_\_  
Tell how they are different. \_\_\_\_\_  
\_\_\_\_\_
- c. Name the three main plant nutrients in fertile soil.  
1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
Tell how they can be put back into the soil when used up. \_\_\_\_\_  
\_\_\_\_\_

2. Do the following:

- a. Define soil erosion \_\_\_\_\_  
\_\_\_\_\_
- b. Tell why it is important and how it affects you. \_\_\_\_\_  
\_\_\_\_\_
- c. Name three kinds of soil erosion and describe each. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- d. Take pictures or draw two kinds of soil erosion. (attach)

3. Do the Following:

- a. Tell what is meant by conservation practices. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- b. Describe the effects of three kinds of erosion control practices. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- c. Take pictures or draw three kinds of erosion control practices. (Attach)

4. Do the following:

- a. Explain what a watershed is. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- b. Out line the smallest watershed that you can find on a contour map.

- c. Then outline on your map, as far as possible, the next larger watershed which also includes the smallest with in it.
- d. Explain what a river basin is. Tell why all people living in it should be concerned about land and water use on it. \_\_\_\_\_

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- 5. Do the following:
  - a. Make a drawing to show the water cycle.
  - b. Show by demonstration at least two of the following actions of water to the soil: percolation, capillary action, precipitation, evaporation, transpiration
  - c. Explain how removal of vegetation will affect the way water runs off a watershed.

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- d. Tell how uses of forest, range, and farmland affect usable water supply. \_\_\_\_\_

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- e. Explain how industrial use affects water supply. \_\_\_\_\_

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- 6. Do the following:
  - a. Tell what is meant by water pollution. \_\_\_\_\_

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- b. Describe the common sources of water pollution and explain the effects.

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- c. Tell What is meant by “primary water treatment,” “secondary waste treatment,” and “biochemical oxygen demand.”

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- d. Make a drawing showing the principles of complete waste treatment. (attach)
7. Do TWO of the following:
- a. Make a trip to two of the following places. Write a report of more than 500 words about the soil and water and energy conservation practices you saw.
    1. An agricultural experiment.
    2. A managed forest or woodlot, range, or pasture.
    3. A wildlife refuge or a fish or game management area
    4. A conservation-managed farm or ranch.
    5. A managed watershed.
    6. A waste-treatment plant.
    7. A public drinking water treatment plant.
    8. Industry water use installation.
    9. Desalinization plant.
  - b. Plant 100 trees, bushes and/or vines for a good purpose.
  - c. Seed an area of at least 1/5-acre for some worthwhile conservation purpose, using suitable grasses or legumes alone or in a mixture.
  - d. Study a soil survey report. Describe the things in it. On tracing paper over any of the soil maps, outline an area with three or more different kinds of soil. List each kind of soils by full name and map symbol.
  - e. Make a list of places in your neighborhood, camps, school ground, or park having erosion, sedimentation, or pollution problems. Describe how these could be corrected through individual or group action.
  - f. Carry out any other soil and water conservation project approved in advance.