What is an Environmental Engineer?

Draw and label a picture of an environmental engineer at work.

Explain your drawing of an environmental engineer:
What is an Environmental Engineer?

Draw a picture of an environmental engineer at work.
Label your picture.
What is an Environmental Engineer?

Which of the following would an environmental engineer do for his or her job? Mark ALL that apply:

- decide how to stop harmful plants from growing in a lake
- rescue dolphins from fishing nets
- figure out new ways to clean the air
- drive ferry boats to get people to an island
- solve air, soil, and water problems
- design bridges, roads, and tunnels
- study what whales eat
- design vegetable gardens
- find ways to clean up an oil spill
- drive machines to cut down trees
- prevent damage to land, water, and soil
Directions: For each question below, circle the BEST answer.

1. Which of the following is an environmental engineer MOST LIKELY to design?
   A. a zoo
   B. a garden
   C. a way to clean water
   D. computer-controlled boats

2. At work, an environmental engineer is MOST LIKELY to:
   A. test soil for contaminants.
   B. design electric engines for boats.
   C. design a new habitat for animals.
   D. pick up glass, paper, and plastic for recycling.

3. Which of the following is LEAST LIKELY to be the job of an environmental engineer?
   A. designing a technology to clean up pollution
   B. figuring out where pollution is coming from
   C. running and repairing a machine that cleans up pollution
   D. helping a town figure out how to clean up river pollution
Directions: Circle AT LEAST 4 sources of pollution in the picture below.
1. Which of the following are possible sources of pollution? Mark ALL that apply:

- [ ] oil spilled by broken machines
- [ ] leaves that fell from the trees onto the ground
- [ ] soap from washing clothes
- [ ] waste from farm animals
- [ ] fertilizer that people put on their grass to make it grow
- [ ] chemicals made in a factory
- [ ] an empty water bottle that someone threw on the ground

2. Do you think that rain could ever be a source of pollution? Explain.

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Directions: For each question below, circle the BEST answer.

A girl wants to clean water with a lot of large leaves and small particles floating in it.

1. Which of the following filters would work BEST to QUICKLY remove the large leaves from the water? A filter made of:
   A. sand.
   B. paper.
   C. cotton balls.
   D. a metal screen.

2. Now she needs to remove the small particles from the water. What would be the BEST thing she could do to remove the small particles?
   A. clean the water with soap
   B. use a filter material that is softer
   C. use a filter material with smaller holes
   D. it is not possible to remove the small particles
Two students make a water filter. A diagram of their filter is shown to the right. They pour cloudy brown water with leaves in it into the top of their filter. The leaves don’t come through, but the water that comes out is still brown.

2. Explain how you could improve the water filter so that it will help remove brown color from the water.

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Draw your design plan in the box on the back.
3. Draw your water filter design plan in the box below. Label the parts.
Two students make a water filter. A diagram of their filter is shown to the right. They pour cloudy brown water with leaves in it into the top of their filter. The leaves don’t come through, but the water that comes out is still brown.

Directions: Design a water filter that will help remove brown color from water. You can sketch your ideas on the back of this page.

Draw your design plan in the box below. Label the parts.
What is an Environmental Engineer?

Draw and label a picture of an environmental engineer at work.

A good picture would show someone working to solve problems with air, water, soil, and the natural environment. The picture may include someone designing a technology to clean air, water or soil; someone testing soil or water sample to look for pollutants or other problems, etc.

Explain your drawing of an environmental engineer:

Answers will vary, but may include: someone concerned with solving problems with air, water, soil, and the natural environment.
What is an Environmental Engineer?

Draw a picture of an environmental engineer at work.
Label your picture.

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What is an Environmental Engineer?

Which of the following would an environmental engineer do for his or her job? Mark **ALL** that apply:

- [X] decide how to stop harmful plants from growing in a lake
- [ ] rescue dolphins from fishing nets
- [X] figure out new ways to clean the air
- [ ] drive ferry boats to get people to an island
- [X] solve air, soil, and water problems
- [ ] design bridges, roads, and tunnels
- [ ] study what whales eat
- [ ] design vegetable gardens
- [X] find ways to clean up an oil spill
- [ ] drive machines to cut down trees
- [X] prevent damage to land, water, and soil
Name: _____________________________________ Date: ________________

Directions: For each question below, circle the BEST answer.

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2. Do you think that rain could ever be a source of pollution? Explain.

   Yes, it could be acid rain. Acid rain is rain that includes some acid and can be harmful to the environment.
A girl wants to clean water with a lot of large leaves and small particles floating in it.

1. Which of the following filters would work BEST to QUICKLY remove the large leaves from the water? A filter made of:
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   - D. it is not possible to remove the small particles
Two students make a water filter. A diagram of their filter is shown to the right. They pour cloudy brown water with leaves in it into the top of their filter. The leaves don’t come through, but the water that comes out is still brown.

The filter is not catching particles that are very small, which are causing the brown color.

2. Explain how you could improve the water filter so that it will help remove brown color from the water.

Answers will vary, but may include: add more sand to the filter, use a finer sand (or other material) to the filter so that it will trap more of the brown color, etc.

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A good picture might show: more sand in the filter, a finer sand (or other material) in the filter so that it will trap more of the brown color, etc.
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