

Use the following chart to answer questions 7 and 8.

Electromagnetic Strength

Set-Up	Number of Batteries	Number of Coils on a Nail	Number of Paper Clips Lifted (1 gram each)
A	1	20	5
B	1	40	10
C	2	40	20
D	2	80	40

7. Mark plans to make an electromagnetic crane in order to pick up his toy metal cars, each of which weighs between 10 and 15 grams. If Mark wants to make an electromagnet just strong enough to make sure each of the cars can be lifted, which electromagnet would be the best one to choose?
 - a. Set-up A
 - b. Set-up B
 - c. Set-up C
 - d. Set-up D

8. For his birthday Mark received a toy metal truck to go with his collection. The truck weighed 75 grams; therefore, his electromagnet could not pick it up. Following the pattern in the chart, how would Mark increase the strength of his electromagnet so that he could pick up the new toy truck?
 - a. 2 batteries and 90 coils
 - b. 4 batteries and 80 coils
 - c. 1 battery and 80 coils
 - d. 1 battery and 90 coils

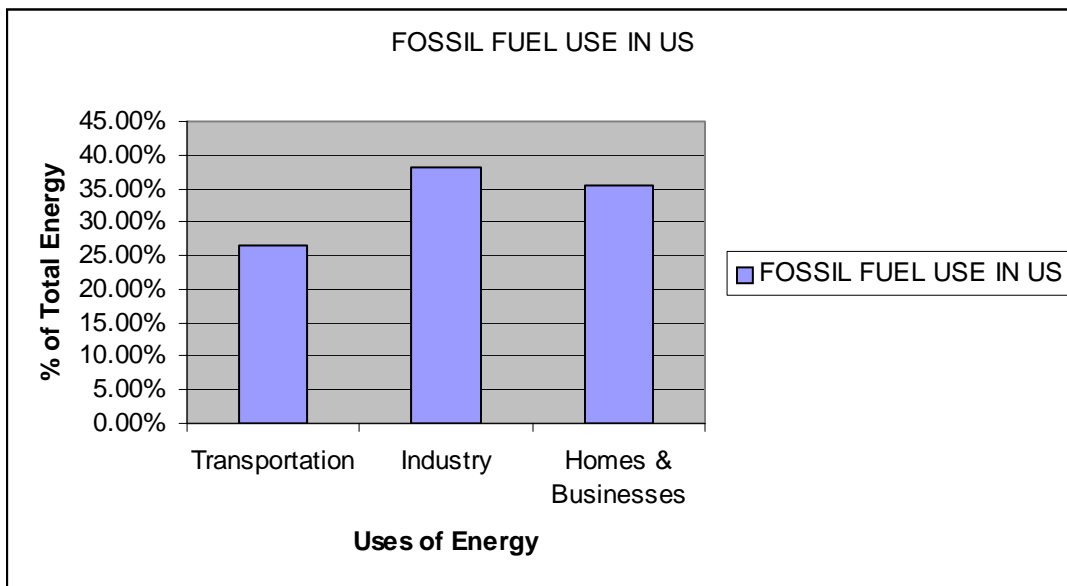
9. Tyrone and Natasha were discussing their upcoming field trip and disagreed on which kind of magnet would be best to test outdoor objects for magnetism. Tyrone wanted to take an electromagnet since its strength could be increased as needed. Natasha disagreed and insisted that a bar magnet would be better. Which scientific explanation would help them make the best choice?
 - a. A bar magnet has the ability to attract metal objects only as long as it is connected to an electrical power source.
 - b. It makes no difference since electromagnets and bar magnets operate in the same way.
 - c. An electromagnet has a magnetic field only as long as it is connected to a bar magnet.
 - d. An electromagnet has the ability to attract metal objects only as long as it is connected to an electrical power source; a bar magnet does not need to be connected to an electrical power source.

Sample assessment pages from Earth A Module

III. Multiple Choice (3 points each)

Circle the letter in front of the best answer choice.

Use this bar graph to answer Questions 12 and 13.



12. What conclusion can be drawn from this graph?
- Homes and businesses use approximately 10 % more energy than what is used in transportation.
 - Industry uses twice as much energy as transportation.
 - Transportation uses 30 % more energy than homes and business.
 - The difference in energy use between the highest percentage of use and the lowest percentage of use is 40%.
13. Which information is NOT given on this graph?
- Fossil fuel that is used for energy by transportation.
 - A comparison of energy being used by the USA and Europe.
 - A comparison of energy being used by transportation, industry and homes and businesses in the US.
 - The percentage of energy being used adds up to approximately 100%.
14. A critical attribute of nonrenewable resources is:
- They are inexhaustible.
 - They are the only source of energy available at this time.
 - They can be easily replaced in an average person's lifetime.
 - They can be used up and cannot be replaced in an average person's lifetime.

V. Discussion (5 points each)

Answer the following questions in paragraph form.

29. Why is it important for people to conserve and protect our natural resources?

30. Give one example each of ways people can reduce, reuse or recycle products.

31. Write a short public service announcement to urge people to participate in a newly formed curbside, recycling program. Convince them that this is not only important for the environment, but that it would benefit them personally.

Sample of Alternate Assessment Grading Rubric from Life Science A Module

NAME _____ DATE _____

ASK AN OCEANOGRAPHER
Scoring Rubric

CATEGORY	REQUIREMENTS	INDIVIDUAL POINTS	GROUP POINTS
		40 pts.	0 pts.
Research Information	<ul style="list-style-type: none"> • Background information on oceanographer • Explanation of field of study • Accomplishments and contributions of the oceanographer • Other interesting facts • Use of note cards following guidelines 		
		40 pts.	50 pts.
Interviewing Techniques	<ul style="list-style-type: none"> • Members well versed in information on oceanographer • Use of interesting questions and informative answers • Voice and presentation quality • Creativity • Meets time requirements 		
		20 pts.	50pts.
Cooperative Group Behaviors	<ul style="list-style-type: none"> • Followed cooperative group procedures • Used time management • Members of group involved in all stages of the TV interview 		
Totals			