

English Language Arts (ELA) Writing Test

Fourth Grade

Informative/Explanatory Prompt

Name _____

Interesting Materials

Source #1

Tomorrow's Materials

It is common to see buildings made of wood, spoons made of metal, and clothing made of cotton. All of these materials have been used for many years because they are strong and available in nature. But scientists and inventors are always looking for new materials to make useful objects. Let's take a look at two of tomorrow's materials. They just might amaze you.

Our first material of tomorrow is called Neptune balls, also known as sea balls. They are made of Neptune grass, a type of seaweed found in the Mediterranean Sea. Pieces of dead Neptune grass get rolled into balls in the waves, and then the balls wash up on the shore. They are a common sight on the beach, but nobody thought they were useful until recently. Somebody studied Neptune balls closely and decided to try using them as insulation.

Insulation is a material that keeps something from losing heat. People put insulation inside the walls of houses to help keep them warm inside. Neptune balls work very well as insulation. They keep heat from escaping. In addition, they do not rot or grow mold, and they do not catch on fire. Neptune balls are totally natural and found easily on beaches. Nobody uses them for anything else. Today, Neptune balls are collected in the countries of Albania and Tunisia. Then a company in Germany shakes the sand from the balls, chops them into smaller pieces, and sells the material.

Next, we will explore a material that can be found not just in one sea, but all over the world. It's spider silk! Some people have been using spider silk as a material for centuries. For instance, it has served as fishing line and in bandages for cuts. Scientists are now trying to make a material that acts in exactly the same way. They believe this material would be very profitable. However, nobody has been able to gather large amounts of spider silk for human use. Small amounts will never make much money.

Why do people want to use spider silk? First, it's extremely strong. A piece of spider silk is about five times stronger than a piece of steel of the same weight. Some experts say that a spider web with strands as thick as a pencil could stop a jumbo jet in flight! Second, spider silk is very flexible.

You can stretch a strand by nearly half of its original length. Finally, spider silk is lightweight. Inventors are always searching for materials with these qualities.

Spider silk could be used to make strong but flexible car parts, such as bumpers and airbags. Sponges and long-lasting clothing are other possibilities for this material. These are only a few of the ideas that have come up.

Tomorrow, or perhaps the next day, you just might hear more about Neptune balls or spider silk. In fact, you might have seaweed to thank for keeping you warm inside on a cold day. And you might have a spider to thank for a coat that lasts for years. Stay on the lookout!

Source #2

Rubber: From Tree to Tire

Rubber is a waterproof, long-lasting material. Like many other materials today, it comes in both natural and man-made forms. The source of natural rubber is latex. This milky fluid is found in many types of plants, including the rubber tree. Latex hardens into rubber. Then it can be dried and pressed into objects such as balls and shoes. Rubber got its name when people started using it to rub pencil marks off paper.

As a material, rubber had some growing pains. Using pure natural rubber can be a problem because it softens in heat, hardens in cold, and begins to rot and smell over time. In 1839, Charles Goodyear invented vulcanization. This process causes rubber to strengthen and then keep its strength and level of hardness. Thanks to vulcanization, Goodyear made a lot of money on a product that still bears his name: tires. Today man-made rubber has replaced natural rubber in many products. About half of the man-made rubber produced in the world is used in tires.

That does not mean people have stopped using natural rubber. Rubber trees still grow on large farms called plantations. The latex is used to make products such as rubber bands and erasers.

No more than 90 percent of the world's rubber comes from farms in Asia. The major rubber-producing countries are Thailand, Indonesia, and Malaysia. A rubber tree produces about 19 pounds of latex every year.

Directions:

The sources that you read were about different materials. Write an informative essay in which you contrast two interesting materials that you read about and how the materials are used. Use information from the sources in your essay.

Manage your time carefully so that you can:

- Read the passages;
- Plan your responses;
- Write your response; and
- Revise and edit your response.

Be sure to include:

- an introduction
- support for your controlling idea using information from the passages; and
- a conclusion that is related to your controlling idea.

Your writing should be in the form of a well-organized, multi paragraph essay.

Planning Sheet

English Language Arts (ELA) Writing Test

Fourth Grade

Opinion Prompt

Name _____

Bikes in Your Community

Source #1

Bike Sharing Programs

Bike sharing programs allow people within a city to use bikes for a fee. People in Europe have been using bike sharing programs for years. Bike sharing stations have started to pop up in many of our own cities, too. This creative idea has been spreading across the country over the past few years. At the beginning of 2013, there were 22 programs running in American cities. Because the idea is so popular, people think that the number of programs will double very soon. These cities have other types of public transportation, too, such as subways and buses.

Bike sharing programs were started so that people would be able to use a bike easily when they needed one. The programs give people the option to use bikes to travel short distances around a big city. There are many bike stations that are set up in the city. People take a bike out of one station, use it for some time, and then return it to another station within the city.

People can use the bikes on any day and at any time. All of the stations are self-service stations. Each “dock,” or area that holds the bikes, has an electronic machine. This machine takes payment from the customer and releases one of the bikes. The machine also starts to track the time that the bike is being used. The machine at the dock where the bike is returned can then calculate the total time the bike was in use.

Many people are using the bicycles in these programs. And cities are welcoming the stations. These are signs that bike sharing programs are a success.

Source #2

Bike Sharing: A Great Idea

New and exciting programs have started in many cities: bike sharing programs. These innovative programs allow people to borrow and use bikes for a small price. They are a wonderful idea for many reasons.

When you decide to ride a bike to get somewhere instead of driving a car, that decision brings positive changes. One change that happens is that it takes a car off the road. This helps in a few ways. For one thing, it reduces traffic. If more people decided to ride a bike to get to and from work every day, fewer cars would be on the road at the same time. Rush hour traffic might not be that bad if this happened. It also helps to get rid of some of the pollution that cars produce. Over time, having fewer cars on city streets would help the environment greatly. Just think how much cleaner the air would be if this program were successful in all the major cities in the United States!

Bike sharing is also convenient for many of us. People living in a big city might not want to buy their own bicycles. Bikes can be expensive. They are also not easy to store in a small apartment. Unfortunately, bikes often are a target to be stolen. The bike sharing program is a great way to avoid all of these problems. The cost to use the bikes in these programs is low. When you are finished using the bike, you drop the bike off at a docking station. Where you will store the bike is not a problem. Also, if you don't own the bike, you won't worry about it being stolen after you have dropped it off.

Riding a bicycle is great exercise. Even short bike trips can help people live a healthier lifestyle. Bike sharing programs make it easier for busy people to be more active. These programs also create jobs. When a bike needs to be fixed, someone will need to fix it. Who will be there to answer any questions the public may have about the programs? People will need to be hired to do these tasks. Because the programs have become so successful, hundreds of jobs have already been created. As the programs spread to other cities, the number of available jobs will increase.

Bike sharing programs add so much value to the city and the people who live and work there. More and more cities are seeing the benefits. Many of them are making plans to start a bike sharing program. It is even possible that we may one day see these wonderful programs in every large city across America!

Source #3

Bike Sharing: In Need of Repair

Bike sharing involves the use of bikes in a city for a fee. People pick up a bike at a bike docking station and then return it later to any station in the city. The number of cities with bike sharing programs continues to grow. Some of the larger cities have thousands of bikes and hundreds of stations as part of their program. At first, this sounds like a great idea, but unexpected problems have come up. Not everyone sees these programs as a good solution. They were designed to make life easier, but they have actually been causing some big headaches.

First of all, the bike docking stations are self-service, allowing people to use the bikes at any time. This means that an employee is not present at any of the stations. If something does not work properly when you try to take out a bike, nobody is there to help. This has been known to happen quite often. You can try to pay again and see if the bike will unlock the second time. You can also just leave the bike and lose your money. Calling customer service is another option, but that will take time. One of the hopes for these stations is that people will start using bicycles instead of other forms of transportation. If you need to be somewhere at a certain time, waiting to speak to a customer service representative to fix the problem is not something you would want to do. It is certainly easy to see how frustrating this can become.

Secondly, think about the space one or two bicycles take up. Then imagine thousands of them on already-crowded streets and sidewalks. That crowded picture in your head is a reality. These bikes are sitting on the street so that the public can access them. They are sitting in front of stores and apartment buildings where people live. Some docking stations hold up to 50 or 60 bicycles. These docks are taking up a lot of valuable space all over the city.

Finally, if you have ever walked around busy city streets, you know that you need to be alert. You need to watch for cars and buses, and you need to be careful not to bump into anyone walking beside you. Now, add thousands of people on bicycles. This can be a dangerous situation. The people riding the bikes may not always be experienced bike riders, either. As a result, someone could get seriously hurt.

The overall idea of the bike sharing program may be a good one. Is it worth the problems it creates, though? If people want to use a bike to get around, they have options. They can either buy their own or rent one from a bike store. Having a bike sharing program as a third option is simply not necessary.

Directions:

The passages you read were about bike sharing. Write an essay in which you give your opinion about whether or not a bike sharing program would work in your community. Use information from the sources in your essay.

Manage your time carefully so that you can:

- Read the passages;
- Plan your responses;
- Write your response; and
- Revise and edit your response.

Be sure to include:

- an introduction
- support for your opinion using information from the passages; and
- a conclusion that is related to your opinion.

Your writing should be in the form of a well-organized, multi paragraph essay.

Planning Sheet

English Language Arts (ELA) Writing Test

Fifth Grade

Informative/Explanatory Prompt

Name _____

Ocean Exploration

Source #1

Oceans: Earth's Final Frontier

In the past 50 years, explorers have set their sights on the stars. Our ships have orbited Jupiter, Saturn, Venus, and Mercury. However, many scientists believe explorers should now turn their attention down instead of up. According to these experts, the oceans are Earth's last unexplored frontier.

Seventy percent of our planet lies under water. This "world ocean" consists of the Pacific, our largest ocean, followed by the Atlantic, Indian, Southern, and Arctic Oceans. We have explored less than 5 percent of these waters. In fact, we have better maps of the surface of Mars than we do of our oceans.

Underwater Geography

What's so exciting about exploring the bottom of the ocean? Actually, the ocean bottom contains as many different features as our continents.

- **Mountains** - The longest mountain range in the world is completely under water. Called the Mid-Atlantic Ridge, it stretches for more than 35,000 miles. This chain of mountains runs across the Atlantic Ocean and into parts of the Indian and Pacific Oceans.
- **Valleys** - The ocean also contains deep valleys. The deepest place on Earth—the Mariana Trench—plunges seven miles below sea level.
- **Seamounts** - The ocean also features unusual forms we do not see on land. Pillars of rock and minerals stretch several stories high. Chimneys spout acid into the water. Seamounts, or underwater volcanoes, spew mud and gas into the sea.
- **Hydrothermal Vents** - These holes on the ocean bottom eject material heated by the earth's core. Vents warm the surrounding waters from a chilly 37 degrees up to 392 degrees. In addition to the vents, the ocean contains hot springs that shoot out 650-degree water—hot enough to melt lead.

Strange Sea Creatures

Many of these unique habitats have alien-like creatures living there. Scientists have discovered 160-foot jelly creatures living around hydrothermal vents. Living near hot springs are 10-foot-tall tubeworms and giant clams. We have learned of these life forms only recently. Many creatures have yet to be found. This makes sense because the ocean is Earth's largest habitat.

Many of these creatures live at the greatest depths, which pose the most dangers to human divers. Some, like the frilled shark, may hold clues to our planet's past.

Measuring more than 5 feet long, the frilled shark swims about 5,000 feet below the surface. Scientists include this creature in a group called "living fossils"—animals similar to those who swam the seas during the time of the dinosaurs.

The deepest ocean-dweller discovered so far might be the fangtooth fish.

Sometimes found only 6,500 feet down, its habitat extends to the icy waters 16,500 feet below the surface. The fangtooth may only be about 6 inches long,

but it looks as scary as its name. Its long, pointed teeth are the largest of any other fish its size.

At 8 inches long, the creepy-looking Pacific viperfish has jagged teeth that look like needles. It swims 13,000 feet down into the darkness, luring its prey with luminous dots on its belly. Most creatures living deep in the ocean have a glow-in-the-dark feature. It can be used to communicate, to attract prey, or for defense. This feature is called bioluminescence, a chemical reaction within an organism that produces light.

Exploring the oceans may lead us to discover many new land forms and animals. Scientists also hope it will help us learn more about the planet, and even about ourselves. Studying hot springs and vents could help us discover new ways to produce energy. Other findings could lead to new medical treatments. We could also study creatures that survive in strange habitats—without heat, light, or oxygen. This could help us discover new ways to survive here on Earth—or even among the stars.

Source #2

Dive Technology

To explore the oceans, divers have to overcome hazards to human life. These include extreme darkness, freezing cold temperatures, and crushing water pressures. Through the years, inventors have tackled these challenges to make advances in underwater technology.

The Aqualung

In the 1940s, ocean explorer Jacques Cousteau helped invent the Aqualung. This device allowed divers to breathe under water. The Aqualung was a metal oxygen tank attached to a breathing tube that controlled the flow of oxygen. It was strapped with a harness to a diver's back. Scientists have since improved upon this invention, now known as SCUBA, for Self Contained Underwater Breathing Apparatus.

The Jim Suit

Even the most experienced scuba divers can go down only 130 feet for 10 minutes. To go beyond these limits, inventors created the Jim Suit. Based on astronauts' space suits, the Jim Suit protects wearers from deadly water pressure and contains built-in oxygen. In 1979, ocean scientist Sylvia Earle tested the Jim Suit in a record-breaking dive. She explored the ocean floor 1,250 feet below the surface for 2¹/₂ hours.

The Deepsea Challenger

In 2012, filmmaker James Cameron introduced his new invention: a one-person submarine called *The Deepsea Challenger*. Before, the deepest a submarine could travel was 4 miles down. Cameron broke this record when he took *The Deepsea Challenger* to the bottom of the Mariana Trench. Seven miles down, it is the deepest place on Earth.

Cameron's design is an example of advanced technology because it sits vertically in the water. This allows the sub to descend faster, rotating as it goes to keep it on course. *The Deepsea Challenger* has lights, 3-D cameras, and a scooper arm to collect samples. This revolutionary invention could transform ocean exploration.

Source #3

Lights, Camera, Invention!

In 2012, the only vehicle able to take people to the deep sea was almost 50 years old. What would it take to reinvent the **submersible**¹? As it turns out, a film director.

James Cameron is most famous for award-winning films like *Titanic* and *Avatar*. He sometimes jokes that he makes blockbuster movies to support his passion for exploring the seas. His filmmaking fortune did help him fund his revolutionary invention: *The Deepsea Challenger*, a one-man submersible that in 2012 traveled to the deepest place on Earth. However, Cameron's passion for ocean technology did not begin here.

In 1989, Cameron directed *The Abyss*, a science fiction movie in which characters traveled to the ocean depths. During filming, he introduced new ways of using cameras under water. Later, he controlled his robotic cameras inside the wreck of the sunken ship *Bismarck*. During the making of *Titanic*, Cameron made many dives to the wreck of the actual ship.

In this way, Cameron has been able to make films and advance underwater technology at the same time. He can use his ideas right away and study the results. Perhaps it is this combination of skill and creative thinking that has allowed Cameron to design submersibles in a new way.

With *The Deepsea Challenger*, Cameron has literally “upended” the design.

Instead of traveling horizontally, his sub moves vertically, like a torpedo. This makes the ship much faster. He replaced the heavy steel shell with a lightweight foam structure. This allows the ship to rise quickly from the bottom. And he put the thrusters on the top, rather than the bottom. This prevents the craft from stirring up the seabed. Now the pilot (and cameras!) can clearly see the ocean floor.

submersible¹—submarine

Directions:

The passages were about exploring the oceans through technology. Write an informative essay in which you explain how technology has helped explorers overcome challenges related to deep-sea exploration. Use information from the sources in your essay.

Manage your time carefully so that you can:

- Read the passages;
- Plan your responses;
- Write your response; and
- Revise and edit your response..

Be sure to include:

- an introduction
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-

Your writing should be in the form of a well-organized, multi paragraph essay.

Planning Sheet

English Language Arts (ELA) Writing Test

Fifth Grade

Opinion Prompt

Name _____

Water Choices

Source #1

The Bottled Water Industry: A Real Goldmine

The bottled water industry is certainly one to watch. Billions of dollars are spent on bottled water every year. And this industry appears to be growing more powerful around the world.

Every year, people drink more and more bottled water because of its convenience. Studies have shown that people in America buy and drink more bottled water than people in other countries; however, more and more people in other countries are increasing the amount of bottled water they consume. The industry as a whole is growing 10% each year, which means if 100 people bought bottled water last year, then 110 people will buy it this year. That is a huge increase in sales in a relatively short period of time.

In 2011, a study showed that a total of 9.1 billion gallons of bottled water was sold in the United States. If you break that number down, it comes out to almost 30 gallons of bottled water for each person. That means that, on average, every single person in the country drank four bottles of water each week for the whole year—and these numbers are expected to grow. That's a lot of bottled water that people are drinking!

What makes this industry so interesting? One reason is the fact that people are spending a lot of money on something that they can essentially get for free. Bottled water companies are making huge profits selling a product to people who can get it simply by turning on their faucet. Why? This question causes many debates. People have different opinions about the bottled water industry. But one thing we can all agree on is that bottled water is sold practically everywhere, and people are buying it. It looks like the demand for this product is here to stay.

Source #2

Bottled Water: The Right Choice

Bottled water is a subject about which people have very different opinions. Some argue that bottling water is a bad idea. But the reality is that bottles of water are being sold everywhere and people continue to buy them. People see the benefits of bottled water; it is a wise alternative to tap water.

One of the biggest advantages of bottled water is the convenience of it. It is important for people to drink plenty of water throughout the day to stay healthy. It becomes even more important to drink water when you exercise or play sports. One rule of thumb is that people tend to drink more water if they are able to get it easily.

It is easy to grab a bottle of water before you leave the house so that you have it with you on your way to school. And taking a bottle of water and putting it in your gym bag on your way to a workout will help make sure that you have enough water while you exercise. Likewise, if you are thirsty and looking at options in a vending machine, a bottle of water offers a healthy choice to quench your thirst.

Many people feel that bottled water also tastes much better than tap water. Each brand of bottled water has a consistently good taste to it, but tap water tastes different depending on where it comes from. Different factors may cause tap water to taste better or worse to different people. Variances in tap water can be a problem when you are in different and unfamiliar places. How do you know how the tap water will taste? How do you know if it is clean enough? Bottled water will always taste the same wherever you buy it.

Another advantage of bottled water is that it can be shipped and stored easily. Sometimes natural events will cause the water supply to become damaged. When this happens, people will not be allowed to drink the water. Because water can be shipped so easily, getting clean water to the people who are affected can be done quickly. When a storm is coming that may cause us to lose electricity for a while, it is important to have enough clean water. We are actually told to have at least a three-day supply of water for each person. One gallon per person per day is the recommended amount. Buying a few cases of bottled water is simple enough to do to be prepared.

People will continue to have their own opinions about bottled water; however, it is hard to deny that some real benefits come from this product that many of us enjoy on a daily basis.

Source #3

Bottled Water: The Wrong Choice

People all over the world buy bottled water, mainly because it is convenient to do so. Although bottled water does have some conveniences, it also comes with some harmful effects. These negative effects are not worth the ease of purchasing a bottle of water.

First, the bottle that holds the water needs to be made. The process of creating the plastic bottle is actually quite damaging to the environment. We are living in a time when we are all trying our best to limit the greenhouse effect and reduce our use of fossil fuels. The amount of fuel used to run the machines that are making the bottles is tremendous. Then even more fuel is being used by the trucks to deliver the bottles of water all over the world. This is not helping our efforts to reduce our use of fossil fuels.

Then, what do people do with their plastic bottles when they are finished drinking the water? Unfortunately, not enough people are recycling. A study showed that only one out of every six plastic bottles is recycled by Americans. The other five bottles are going to our already-overflowing landfills, where they will sit for years to come, taking up more of our land. It is believed that the people in our country add 24 billion plastic bottles each year to landfills. That is just terrible!

What makes this entire process even more terrible is the fact that we have access to clean, tasty water right in our own homes. Many people incorrectly believe that bottled water is cleaner than tap water. This is actually not true. The water that comes from your sink at home has gone through many different treatments and tests. Water companies are required to follow strict rules to make sure the tap water does not have anything in it that would harm us. Bottled water companies do not have to follow those same strict rules. As a result, the water in the bottles that we pay for may actually contain things that might be harmful to us.

And then there is the matter of the consumer cost of bottled water. It is true that tap water is not free. But although we must pay to have running water in our house, the difference in the cost of bottled water compared to tap water is huge. About 450 gallons of tap water costs the same as just one bottle of water.

The damage to our environment, the possible health risks, and the cost all greatly outweigh the convenience of bottled water. It is time to start filling your washable water bottle with tap water and stop buying bottled water.

Directions:

The passages are about bottled water. Write an essay in which you give your opinion about whether or not selling bottled water would be a good choice for your school. Support your opinion with evidence from the sources.

Manage your time carefully so that you can:

- Read the passages;
- Plan your responses;
- Write your response; and
- Revise and edit your response.

Be sure to include:

- an introduction
- support for your opinion using information from the passages; and
- a conclusion that is related to your opinion.

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Planning Sheet

