FLPS

English

Name _____

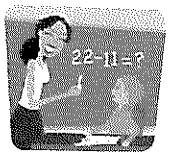
Transition English

Study Guide

MP-2

Estimation

Cross-Curricular Focus: Mathematics



Name: _____

Estimation can be a powerful tool in mathematics. You can use it to check an answer when you are finished solving a problem. It will tell you whether or not your answer is **reasonable**. If your answer is somewhat close to your **estimate**, you know that you are on the right track. If your answer is off by hundreds, thousands or more, you know that you need to check your work. You may have missed something simple. Maybe you did not line up the place value columns. You might have put a decimal point in the wrong place. Sometimes you have to go back to the beginning and start again. Your estimate tells you when that is necessary.

An estimate is also useful for finding an answer quickly when an **approximate** answer is good enough. If you are the host of a birthday party and want to know about how many people are coming, an estimate will probably work. However, if it is a seated dinner where each guest has a steak of his own, an estimate is not very practical. It may leave you with too many, or even worse, too few plates to serve your guests.

Knowing when to use an estimate, and when to solve for an exact answer is a life skill that comes with practice. Shopping is an excellent activity to help you practice your skills of estimation. You have $23, and you are buying something that costs $9.98. You can quickly change the numbers into friendly numbers in your head by rounding. Twenty-three is close to 20, and $9.98 is close to 10. If you have $20 and spend $10, you will have $10 left.

When you go into the music store, you keep in mind that you have about $10 left to spend. This saves you time as you look for a CD to play during your party. You know that if the CD costs more than $10, you will not have enough money to buy it.

When you find a CD you think you want, you can look on the back and estimate again. If the playing time says 129 minutes, you can estimate that it plays for about two hours.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is one beneficial thing about using estimation?

_____

_____

2) What is the difference between an approximate answer and an exact answer?

_____

_____

3) What is meant by the term friendly number ?

_____

_____

4) Describe a time when you used estimation. How was it helpful?

_____

_____

5) Use what you have learned. What is a good estimate for 48 + 37 ? Round to friendly numbers, then estimate the sum. _____

_____

Endangered Species

Cross-Curricular Focus: Life Science

Today, some type of animals are an **endangered** species. This means there are very few animals of that kind left on Earth. The animals could face **extinction**. Extinction is when all the animals of that kind die. When a type of animal is extinct, it is gone forever.

One problem for animals is that their habitat is sometimes destroyed by humans. As human populations increase, more and more space is needed for people. Building areas for people to live pushed animals out of their natural homes. Forest and swamp habitats are the most threatened. Trees are cut down to make room for homes and businesses. Swamps are filled in so that neighborhoods can expand. The habitat is destroyed. The animals have nowhere else to go. Without a habitat, the number of animals begins to go down.

Humans must prevent the extinction of animals due to the loss of their habitat. We have to become more aware of animal populations when considering building and expansion projects. Other options may not be as convenient, but the survival of the animals needs to be taken into consideration. Better planning and an awareness of how human actions affect animals can make a difference. It is still possible to maintain a diverse animal population for future generations to enjoy.

Another major cause of endangerment of animals is overhunting by humans. The practice of shooting animals as a sport can quickly bring the animals to extinction. This is a worldwide problem. The governments of countries around the world must unite to agree on laws regarding animals. Some animals may have large enough populations so hunting will not endanger them. Others must be protected.

There is still hope for animals who are already on the endangered species list. Some organizations are working hard to recreate habitats for them. Breeding programs are helping animal populations increase. We all have to be aware and think before we act. The things we do can affect more than just ourselves.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What would be the result if worldwide laws were passed to protect animal habitats?

_____

_____

2) Give an example of something that can be done to help keep endangered animals from becoming extinct.

_____

3) What statement supports the idea that the author believes animals need to be protected?

_____

_____

4) Based on the article, what does extinction mean?

_____

_____

5) What is one way that humans affect animal populations?

_____

_____

Discrimination Against Gold Rush Immigrants

Cross-Curricular Focus: History/Social Sciences

Immigrants came to California in the late 1840s and early 1850s for the Gold Rush. Many of them faced awful discrimination. They were not treated fairly by those around them.

Two of the largest immigrant groups were the Chinese and the Irish. Almost 50,000 Chinese came, attracted by the gold. In Ireland, the Potato Famine had killed thousands of Irish people between 1845 and 1849. There was not enough food for the people who lived there to eat. Those who were lucky were sponsored by wealthy patrons. The patrons paid travel expenses for them to start a new life in America.

The United States government gave in to the pressure of citizens and passed some unfair laws during this time. In 1850, immigrant miners were forced to pay a Foreign Miners Tax of $20 per month. That gave the immigrant only the right to look for gold alongside the other miners. Many had to give up their dreams of gold. They were not able to pay the tax.

By the 1870s, the Irish and Chinese populations in California were very large. Many citizens grew worried. They thought the immigrants were trying to take their jobs. They thought they were using resources that belonged to them.

Chinese and Irish immigrants were sometimes forced off their land. Some were told they must live in certain cities or areas. The land where they had lived was taken over by **squatters.** Squatters are people who settle on land they do not own in the hopes of claiming it after a period of time. The immigrants struggled to find jobs or had to take hard jobs for very little pay. Occasionally, immigrants went on **strike** to try to improve their working conditions and pay. The strikes were not usually successful.

The Chinese **Exclusion** Act of 1882 prevented any more Chinese immigrants from coming to the United States. The law was not changed until 1943.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What is a squatter?

_____

_____

2) You read that the Chinese and Irish were made to live in certain areas. Do you think this was fair? Why or why not? _____

_____

3) Who were the two immigrant groups that suffered discrimination? _____

_____

_____

4) What did the Foreign Miners Tax of 1850 make immigrants do?

_____

_____

5) If you had been an immigrant who went to the Gold Rush, would you have stayed even though there was discrimination? Why or why not?

_____

_____

Charge It!

Cross-Curricular Focus: Physical Science

Name: _____

Many people do not really understand how **electricity** works. They just know that when they need power to run an appliance, they have to plug it into the wall.

Energy comes from charged particles that are moving around. Have you ever rubbed a balloon against your clothes to make it stick? Have you held a balloon or a comb over someone's head to watch his hair stand up straight? That's static electricity and electrically charged particles. But these particles don't do much unless we control their energy.

Static electricity builds up on certain materials. Other materials, though, let electrical charges flow through them. This creates an electric current. Electric current travels very easily through metals like copper, gold, silver, and aluminum. We call materials that electric current flows through easily **conductors**. Water is also a good conductor of electricity. That's why electrical charges can travel through people, too. There is water in every cell of a person's body. Electric current can travel through these cells.

Since metal is a good conductor of electricity, electrical wires are often made out of metal. Wiring can also be made out of non-metal materials, such as graphite.

Conductors have to be enclosed in a material that is an **insulator**. Insulators do not allow electric current to pass through them. The rubber coating that you see on electrical cords covers the metal. The electric current stays inside the cord so we can direct the current to the appliance that needs power. Other good insulators are glass and some plastics.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What are two materials that are good conductors of electricity?

_____

_____

2) How is static electricity different from electric current?

_____

_____

3) What could happen if the rubber coating on a power cord is damaged?

_____

_____

4) Is water a conductor or an insulator?

_____

_____

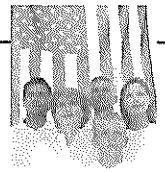
5) In your own words, explain the difference between a conductor and an insulator.

_____

_____

Responsibilities of Citizenship

Cross-Curricular Focus: Social Sciences



You are a citizen of the country you were born in. Usually, citizens live in their country as loyal members of society. Many countries also have options so people who are not natural-born citizens can become citizens of that country. When they complete the requirements, they are called naturalized citizens.

As a citizen of your country, you have some rights, duties and **responsibilities**. U.S. law guarantees the rights of all citizens. It doesn't matter what U.S. state the citizen lives in, the rights are the same for all citizens. This is because the U.S. Constitution is the supreme law of the land. The rights of citizens of the United States are protected in the Bill of Rights. The Bill of Rights is the first ten **amendments** to the U.S. Constitution. A citizen has the right to speak freely and the right to religious freedom. A citizen who is accused of a crime has a right to a fair trial and a trial with a jury.

In exchange for their rights, citizens have duties and responsibilities.They have a duty to serve on a jury when asked. They should obey all laws. In wartime, they must serve in the armed forces when required to. They must pay taxes to support the services and programs of the government. Good citizens vote in **elections** to express their opinion on how the government should be run.

In addition to a national **citizenship**, people are citizens of a state and a city. They have similar rights and responsibilities in each level of citizenship.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) In your own words, explain what it means to be a citizen.

_____

_____

2) What are the first ten amendments to the U.S.Constitution called?

_____

_____

3) What is a naturalized citizen? _____

_____

_____

4) Describe some of the duties and responsibilities of a citizen. _____

_____

_____

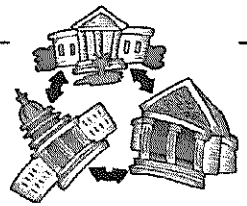
5) What are two rights guaranteed to citizens in the U.S. Constitution?

_____

_____

Branches of Government

Cross-Curricular Focus: History/Social Sciences



There are three different levels of government in the United States: federal, state and local. Officials in each level are elected by the people to serve and protect the people within the **jurisdiction**, or area of authority. The federal government handles relations between the United States and other countries, including war, peace treaties and trade. It is also in charge of printing money and running the military. State governments are responsible for public education, health and safety. Local governments provide services, such as parks, police and fire protection, to members of the community.

The federal government is the national level of government. It is divided into three separate **branches**: the **legislative** branch, the **judicial** branch, and the **executive** branch. The three branches work together to make sure the power is balanced, and no individual branch becomes too powerful. This is known as a system of checks and balances.

Congress is the legislative branch. It is responsible for making laws. Congress is made up of two separate chambers: the Senate, and the House of Representatives. Each state is represented in each chamber. A state elects two senators to the Senate. Each state's representation in the House of Representatives is based on the state's population.

The judicial branch is responsible for interpreting laws and for hearing court cases. These court cases decide if a law has been broken or if a laws is unjust. The Supreme Court is our nation's highest court and has power over all lower courts when deciding matters concerning in the U.S. Constitution.

The executive branch is responsible for executing, or carrying out, laws. The president of the United States is in charge of this branch and is assisted by his cabinet of advisors. The president signs bills into law and can also veto proposed laws. In addition, the president is commander in chief of the U.S. armed forces.

The three branches of the federal government work together to ensure that the rights of citizens are not lost. The ultimate power in the U.S. government belongs to the people. Citizens entrust their power to government officials by voting to elect them.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) What does a system of checks and balances protect against?

_____

_____

2) Which of the branches of the federal government is divided into two separate chambers? What are the chambers?

_____

_____

3) What is the difference between representation in the House and representation in the Senate?

_____

_____

4) What is the judicial branch responsible for?

_____

_____

5) The president of the U.S. is in charge of which branch of government? _____

_____

Self Reflection

Cross-Curricular Focus: Study Skills

Name: _____

Do you ever feel like you are just running from one activity to another? In school, do you rush from one subject to another?

When things happen at such a fast pace, it is easy to lose sight of what you are doing or learning. It is important to stop yourself every now and then to think about what you've been doing or learning.

Self **reflection** means slowing down and calming yourself, including calming your mind. By being calm and going slowly, you give your brain a chance to evaluate the input it has already received. Some people prefer to do these self reflections only in their mind. Others keep a journal or written notes. Either method works, depending on your own personal learning. Whether written or purely mental, the process is the same.

School textbooks are often divided into chapters and units of study. This makes it easier for someone to begin the process of self reflection. Look for the times when you complete a unit of study in the subjects you are learning, such as math, social studies, science and art. Sometimes you know the unit is over because there is some kind of test or quiz. Use these natural breaks as opportunities to stop and reflect.

Find a quiet place. You can even be sitting at your desk at school when you finish something early and the other students are still working. If you are going to take notes, take out paper or your reflection journal. Write down some notes on the new things that you learned in the unit. Let your mind think about the notes you have written and make some connections. Sometimes just pausing to think deeply allows your brain to make connections. Having lots of connections allows your brain to quickly retrieve information when you need it again.

Next, think about things that you are unsure of. For example, maybe you learned about a certain body system, but you're not sure how it works together with the other body systems. Maybe you learned a new way to solve a math problem, but you're not sure when to use it. Writing down your questions will help you remember to look for answers the next time you are working with the same topic.

Self reflection is an essential skill for a successful student. If you have never taken the time to reflect, try it now.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Why should you write down questions about what you have learned?

_____

_____

2) Do you have any experience with self reflection? Explain. _____

_____

_____

3) What are some of the benefits of self reflection?

_____

_____

4) Do you think it would be easier for you to reflect in a journal, or just mentally? Why?

_____

_____

_____

5) Name at least one subject where you want try using self reflection.

_____

_____

_____

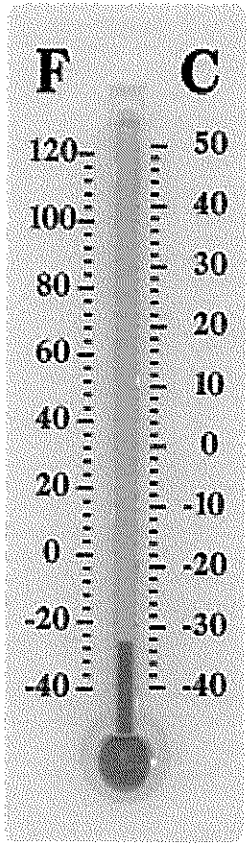
Measuring Temperature

Cross-Curricular Focus: Physical Science

Name: _____

The thermometer is the most common tool for measuring **temperature**. Many thermometers use two different temperature scales: Fahrenheit and Celsius. You may have wondered how they relate to each other. Both scales were invented in the 1700's and are named after their inventors.

The Fahrenheit scale was invented by Gabriel Fahrenheit. He set the boiling point for water at 212°, and the freezing point at 32°. Temperatures are measured all along the scale, much like a number line or ruler. The unit of measurement for temperature is a degree, instead of an inch on a ruler.



Anders Celsius invented the Celsius scale after the Fahrenheit scale. He kept Fahrenheit's anchor points. The anchor points are the temperatures at which water would freeze or boil. Celsius however, changed the numbers of his temperature scale. Under the Celsius scale, water freezes at 0° and boils at 100°. This numbering scale has been adopted for most scientific purposes. It works well with the metric system.

Many thermometers work because liquid changes its volume, or the amount of space it takes up, based on its temperature. When a liquid is cold, it takes up less space than it does when it is warm. Many of the changes in temperature are very small. Thermometers use a large bulb filed with liquid and a very narrow tube to show the changes. The markings on the thermometer are based on the freezing point and boiling point of water. Why? Because Gabriel Fahrenheit chose them as conditions that are easy to recreate. Anders Celsius agreed. Sometimes, inventors set the standard for everyone.

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) Which scale came first: Fahrenheit or Celsius?

_____

_____

2) Why do scientists use the Celsius scale?

_____

_____

3) Why do many thermometers use liquid?

_____

_____

4) What is the unit of measurement for temperature?

_____

_____

5) Which temperature would be more comfortable for most people: 80° Fahrenheit or 80° Celsius?

_____

_____

Ecology: Taking Care of Earth

Cross-Curricular Focus: Life Science

The term **ecology** comes from a Greek word that means "the study of the house." Ecology is the study of how all living things interact with their environments. In a way, Earth is the house of all living things. We all live together on this planet and it is our home. Today, we also understand ecology to mean taking care of the Earth so that humans, plants and animals can all thrive. However, we can damage the environment. Sometimes the damage is **irreversible**.

Ecology is a huge area of study. It covers every part of a living creature's ecosystem that affects its ability to live. Ecology considers how a living thing reacts to climate, soil conditions. It also studies how much clean water is available and and the amount natural resources. By learning about how living things, including humans, affect each other, we can make smart decisions that protect all living things and the resources they need.

There are many things that children can do to help make sure that their world stays healthy. The decisions you are making today can affect the future.

Conservation is one area of ecology where we can all make a difference. It does not matter how old we are or where we live. Conservation means using Earth's limited resources wisely so that they don't run out. When you are home, take a moment to think about how you use resources. Many people waste resources. Leaking toilets, half-filled dishwashers or clothes washers, and unattended hoses all waste precious water. If you leave lights on and appliances running in rooms where they are not being used, you are wasting energy.

There's another way we can help conserve Earth's resources. We can show our support of businesses that make their products using methods and materials that do not damage Earth. By buying their products, we are telling them that we appreciate their efforts to be Earth-friendly.

We need to take the time to learn about how to save resources. More importantly, we must then put into practice what we learn. Children can do their part. They can show their families some ways to save resources. Together, we can all make a difference.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) The passage compares Earth to a house. How are they alike?

_____

_____

2) What does ecology study?

_____

_____

3) Sometimes Earth-friendly products are a little more expensive. Why should you buy them anyway?

_____

_____

4) Why do you think people leave lights on when they are not using them?

_____

_____

5) What is one thing that you, personally, could do today to help conserve resources?

_____

_____