
Internet Usage

Each school has its own computer/internet acceptable-use policy. A teacher must make sure to have signed copies and permission slips from each student, or whatever their district requires. The following text may be reviewed with or handed out to the class.

Internet Safety

A hammer and a saw are valuable tools. Hammers and saws help make it possible to build houses, schools, and skateboard parks. What if we don't use these tools correctly?

If a hammer and a saw are not used correctly, we or others could get hurt. We think before using these tools. We decide when and how it is safe. For example, we do not use a hammer on a glass table. We do not try to saw a rope that is holding us up. We make sure that no one close to us can get hurt.

The internet is a valuable tool. Just like a hammer and a saw, the internet must be used correctly. You must think critically when you are using the internet. Before you click on a link, you must think: Is it safe or not safe? Before you write or post something, you must think: Will this information harm me or others in years to come?

There are many safety rules while using the internet. Each school has its own policy, too. You must always follow your school's policies as well as these top six safety rules:

1. Ask questions!

Be near an adult so that you can ask questions and report anything suspicious.

2. Keep private information to yourself!

Do not share your name, address, phone number, age, or school, and do not send a picture to anyone online.

Keep other people's information private, too. This includes information about your friends and parents' workplaces, credit card numbers, addresses, or emails.

Keep your passwords private. Combine uppercase, lowercase, and numbers when you make a password.

3. Don't be tempted!

Do not enter contests, clubs, or chat rooms without adult permission.

4. Do not keep secrets!

If someone asks to meet you somewhere, to talk on the phone, or for your picture, tell an adult immediately.

6. Follow the laws!

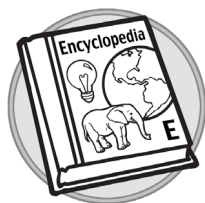
Never send mail that could hurt someone or make them feel threatened now or in the future. What you post may stay on the World Wide Web for years! Never copy commercial files without permission. Never use other people's passwords.

Research Notes for Students

There will be one or two ways you can search for facts. Use the icons below to guide you to the right sources. You may use online sources or books, charts, and other reference materials.

Note: Sometimes the first site you go to may not give you the exact information you need. When this happens, try another site or a different reference book. When you do find a site that is especially helpful or easy to use, you may want to bookmark it or remember its address. That way you can quickly find it when you need it.

Search Engine and/or Encyclopedia



To find factual information on the internet about any topic, you can use an online encyclopedia. Type in "encyclopedia" and click on the encyclopedia of your choice. Another way to find this information would be to simply use a program called a search engine. These programs use key words to search the Web. *Google*, *Yahoo!*, and *Bing* are examples of search engines. Just go to one of these sites and type **key words** into a search box. For example, type in "13th US president" to find out who was the 13th president of the United States.

Dictionary



Use an online dictionary to find the definitions of words. Type "dictionary [word to be defined]" or "[word to be defined] definition" into a search engine.

Thesaurus



A thesaurus is used to find synonyms (same meanings) and antonyms (opposite meanings). Type in "[word] synonyms" or "[word] antonyms" or "thesaurus [word]."

Calculator



Use an online calculator for solving addition, subtraction, and other math problems. Type in the problem (for example, "1 + 6") or the word "calculator." There will be many sites with calculators. Find the one you like the best. An example of an appropriate site would be <http://calculator-1.com/>.

Research Notes for Students *(cont.)*

Atlas



An atlas is a collection of maps. Go to a search engine and type in “atlas [name of place]” or “[name of place] map.”

Image Search



To find a picture of just about any person or thing, go to a search engine and type in the name of the person or thing and then the word “images.” You will usually have several different images to look at and compare.

(Teacher Note: Make sure settings are preset to filter out inappropriate images.)

Translator



Type the word “translate” into a search engine box. Then choose the translation site you are most comfortable with.

Metric Converter



Go to a search engine and type in “metric converter.” Click on what you are converting from and to what. Plug in the numbers. An example site would be <http://www.worldwidemetric.com/measurements.html>.

Temperature Converter



Go to a search engine and type in “temperature converter.” Click on what you are converting from and to what. Plug in the numbers. An example site would be <http://www.onlineconversion.com/temperature.htm>.

Currency Converter



Go to a search engine and type in “currency converter.” Click on what you are converting from and to what. Plug in the numbers. An example site would be <http://www.xe.com/>.

A Nose of Gold

“I have found Tycho Brahe’s lab notes,” Professor Con said. “If you give me more money for research, I am sure that I can turn copper into gold. Your investment will **benefit** us both.”

“Who is Tycho Brahe?” asked Susannah’s father.

“Tycho Brahe was an astronomer and an alchemist. He was born in 1546 and died in 1601. He was from Denmark. He had an observatory and lab in Denmark’s capital. That’s where he made observations about the planets and tried to turn copper into gold,” Professor Con answered.



Tycho Brahe

“Isn’t Oslo the capital of Denmark?” asked Susannah.

Nodding at Susannah, Professor Con said, “That’s right. Denmark’s capital is Oslo. The capital borders the strait that separates Denmark from Sweden.

“It was the King of Denmark himself who provided Brahe’s research funds. You see, Brahe lost his nose in a duel so he had to wear a replacement one. He had a replacement made of copper, but there was a problem with it. Copper melts at 1,083° Celsius, and so when Brahe would stand in direct sun too long or stand close to a hot fire, his nose would begin to melt! Brahe wanted a gold nose because a gold nose wouldn’t melt. The problem was the expense. It cost too much to make a nose out of gold. That’s when Brahe began to work on turning copper into gold. The king funded Brahe’s work because if Brahe could find a way to turn copper into gold, then it would benefit the king. He could become rich.”

“Is changing copper into gold really a possibility,” asked Susannah’s father. “If Brahe couldn’t do it, what makes you think you can?”

“I can,” Professor Con said with confidence. “Brahe left a chemical formula and instructions. The problem was that he didn’t have the lab equipment that we have today.” Holding out a piece of old, yellowed paper Professor Con said, “Take a look.”

Both Susannah and her father leaned over the page the professor was showing them and read, “1 Cu + 4 Ir + 6 H (melted) = Go.”

Professor Con explained, “Every element has a symbol. ‘Cu’ is the symbol for copper, ‘Ir’ is the symbol for iron, ‘H’ is the symbol for hydrogen, and ‘Go’ is the symbol for gold. Hydrogen is a gas, and Brahe didn’t have the equipment to melt it. That’s because hydrogen’s melting point is -259° Celsius.”

Susannah’s father said slowly, “Being able to turn copper into gold would be to my benefit, but I’m having a hard time believing any of this. Your tale of a nose cut off in a duel and replaced with a copper one is pretty far-fetched.”

Susannah said, “Dad, that part is believable, but trust me, you will not benefit if you invest in Professor Con’s research. He doesn’t know what he is talking about.”

A Nose of Gold *(cont.)*

What does Susannah know that her father doesn't? It is time to check facts.



Dictionary

1. If something benefits you, it _____.
2. Why might a school hold a benefit spaghetti dinner? _____

Atlas



Find a map of Denmark. Write **True** or **False**. If your answer is **False**, cross out the incorrect word(s) and write the correct word(s) on the line.

1. Denmark's capital is Oslo. _____
2. The capital borders the strait that separates Denmark and Sweden. _____



Image Search

Key Words:  *Tycho Brache nose*

Can you tell if Brache found a replacement for his nose? **Yes** **No**

Temperature Converter



Find the melting points of copper and hydrogen in degrees Fahrenheit. Then tell how these temperatures compare to the temperature on a hot day.

		Celsius	Fahrenheit	How compares?
1.	Copper	1,083°		
2.	Hydrogen	-259°		

Search Engine/Encyclopedia



Look up the chemical symbols for the following:

1. Copper _____
2. Iron _____
3. Hydrogen _____
4. Gold _____

In Your Own Words

On a separate piece of paper, write one or two paragraphs in which you explain why someone should or should not invest in Professor Con's research. When you write, try to use the word *benefit* at least one time.



The Lost City

Christopher's uncle picked Christopher up from school. Christopher's uncle was very excited. "Look," he cried, "I just received this in the mail. It says that I've won a free trip to Jordan and a tour of Petra. All I have to do is put 500 dollars down to reserve my spot, but I'll be reimbursed when the trip is over. I hope you don't mind going with me to the address on the envelope so I can pay my money and reserve my spot."

As Christopher's uncle drove, he said, "Ever since I was a young child, I've always been interested in **archaeology**. Ancient ruins fascinate me, and Petra has fabulous ruins. Did you know that Petra was a lost city that wasn't discovered until 1812?"

"How can a city get lost?" asked Christopher.

"Oh, it was abandoned about 2,000 years ago, but in the 6th century BCE, it was the capital of the Nabataea kingdom and the center of the caravan trade," answered Christopher's uncle. "It's like a fortress, because its buildings are cut out of rock."

"That still doesn't explain how a city could get lost," Christopher said.

"Archaeologists believe that part of the reason it was abandoned is that there was a huge earthquake that crippled their water supply. Then people forgot about it because it wasn't easily seen," Christopher's uncle explained. "You see, the city is located on the edges of the Wadi Araba desert. It is 50 miles south of the Dead Sea. The only way you can enter is through a long, narrow crevice. The crevice is only about five meters wide, and on both sides, there are towering sandstone walls hundreds of feet high."

"Sounds like the trip of a lifetime," Christopher said, as he and his uncle located the office that matched the address on the envelope.

Inside the office, there was a woman working. When Christopher's uncle showed her his letter, she said, "You can sign this paper and pay me now. Don't worry. You will get your money back. You will be reimbursed as soon as we land in Amman. Amman is the capital of Jordan, and that is where our hotel is located. The archaeologist who will be guiding us through Petra will meet us there."

"What does this say?" asked Christopher's uncle as he looked at the paper.

"Oh," said the woman laughing. "It is written in Arabic. Here, I'll read it and translate it into English as I go." She put her finger under the first word on the top left of the page. As she ran her finger across the page to the right, she said, "This payment of 500 dollars reserves my spot. I will be reimbursed at the end of the trip. I will not write graffiti on or otherwise harm this archaeological wonder."

"Sounds good to me," Christopher's uncle said as he picked up a pen.

"Wait," Christopher said suddenly. "You can't trust what's on the paper."

Christopher's uncle said, "Do you know how to read Arabic?"

"No," said Christopher, "but I'm not sure everyone is being honest here. I wouldn't give 500 dollars or even 500 dinars to this person."

The Lost City *(cont.)*

What does Christopher know that his uncle doesn't? It is time to check facts.

Dictionary



1. What is archaeology the study of? _____
2. An archaeologist would most likely be interested in
 - Ⓐ narrow crevices
 - Ⓑ being reimbursed
 - Ⓒ ancient cities
 - Ⓓ recent earthquakes

Image Search



Key Words:  *Petra Jordan*  *Petra Jordan entrance*

Write down a few adjectives or words to describe Petra's. . .

1. buildings: _____
2. entrance: _____

Atlas



1. Is Petra south of the Dead Sea? _____
2. Is Amman the capital of Jordan? _____

Search Engine/Encyclopedia



Key Words:  *in what direction is Arabic read?*

Circle the direction in which Arabic is read.

left to right or **right to left**

Currency Converter



What is 500 Jordanian dinars (JOD) worth in U.S. dollars? _____

In Your Own Words

On a separate piece of paper, write a paragraph in which you explain why Christopher doesn't think the woman is being honest. Include some reasons why Christopher's uncle might not have been suspicious.



Visitor from Argentina

“Our guest speaker Dr. Vasto will arrive shortly,” Ms. Ming said to the class. “Dr. Vasto is from Argentina, and he is going to tell us about an animal that is native to a particular region of his country. In the few minutes before he arrives, I’d like to know what you students know about Argentina.”

“Argentina is in South America,” Jamie said. “It’s not the largest country in the world, but it’s the largest country in South America. It’s the largest Spanish-speaking country in the world, too.”

“Its capital is Buenos Aires. It is bordered by the Pacific Ocean to the south and east. Its country neighbors are Chile, Bolivia, Paraguay, and Uruguay,” Amy said.

Before anyone could say anything more, Dr. Vasto arrived. “*Estoy muy contento de estar aquí hoy,*” Dr. Vasto said. “I’m going to tell you about a very unique and special amphibian. This amphibian lives in the Pampas region. The Pampas region is a **vast** area made up of flat, fertile grasslands. These vast plains are located in central and eastern Argentina.”

Dr. Vasto continued, “This amphibian weighs 27 to 64 kilograms. It has a body length of 100 to 120 centimeters. Its tail measures 70 to 90 centimeters. That’s a long tail, but this amphibian uses it in a unique way. It uses it like a bicycle kickstand to balance on two legs! It uses its long, tubular snout in a unique way, too. It uses it as a snorkel as it swims.”

“What in the world could he be talking about?” whispered Jamie to Amy.

“I’m talking about an animal that doesn’t have any teeth,” Dr. Vasto said with a smile. “It has a tongue that looks like a strand of spaghetti. It’s about 60 centimeters long. The tongue has tiny, backward-pointing spines that are covered in sticky saliva. It eats a vast number of ants and termites every day. It eats up to 30,000!”

“Could it be a giant anteater?” asked Amy in a puzzled voice.

“Yes!” Dr. Vasto said. “It is the *oso hormiguero*. When this animal feeds, it may dart its tongue into an ant mound 150 times per minute! Then, after a minute, it moves onto another ant mound. This way, despite the vast number of ants it eats, it never wipes out the population.”

After Dr. Vasto left, Jamie asked, “Why didn’t Dr. Vasto use inches and pounds?”

“Argentina uses the metric system,” Ms. Ming answered. “Most countries do.”

Amy said, “That explains the centimeters and kilograms, but there’s another word Dr. Vasto used that I’m not sure is correct.”

Ms. Ming started to laugh. Then she said, “So our guest said something that was incorrect, but so did Amy and Jamie.”

Visitor from Argentina (cont.)

What was said that was incorrect? It is time to check facts.

Thesaurus



1. What are three synonyms for *vast*?

2. Name one thing you would describe as vast. _____

Atlas



Check what was said about Argentina. Write **True** or **False**. If your answer is **False**, cross out the incorrect word(s) and write the correct word(s) on the line.

- _____ 1. Argentina's capital is Buenos Aires. _____

- _____ 2. Argentina is the largest country in South America. _____

- _____ 3. It is bordered by the Pacific Ocean. _____

Translator (from Spanish to English)



1. *Estoy muy contento de estar aquí hoy.* _____

2. *oso hormiguero* _____

3. Did Dr. Vasto mean to say *anfibio* or *mamífero*? _____

Metric Converter



What are the anteater's measurements in standard units?

1. Length: 100 to 120 centimeters = _____ to _____

2. Tail: 70 to 90 centimeters = _____ to _____

3. Tongue: 60 centimeters = _____

Image Search



Key Words: *giant anteater tongue*

Describe the anteater's tongue. _____

In Your Own Words

Imagine you are visiting a school in Argentina and speaking about an animal from your country. On a separate piece of paper, write one paragraph in which you describe the animal. Think about what it looks like, where it lives, what it eats, and its behavior.



The Alibi

Inspector Crane looked carefully around the scene of the crime. Millions of dollars' worth of diamonds had been stolen from the bank's vault. The bank was located in Albany, New York. There had been a rash of similar thefts in other banks, and Inspector Crane believed that the same mastermind was behind all of the robberies. "It's Vinnie Vile," Inspector Crane said.

"Two questions," Police Officer Grackle said. "First, does the name fit? Second, if this looks like one of Vile's jobs, why hasn't he been arrested yet?"

Inspector Crane said, "Vinnie Vile is indeed **vile**, so yes, the name fits. Vile's behavior is nasty and criminal, but that doesn't mean he isn't smart. Vile hasn't been caught yet because he always has the perfect alibi. He has always been able to prove he was elsewhere during the time of the crime."

Police Officer Grackle said, "The security tapes show that the theft occurred between 2:00 and 3:00 P.M. Sunday afternoon. So let's go see what Vile was doing then."

"I was talking on my phone to my friend in Wellington, New Zealand," Vinnie Vile said to Inspector Crane and Police Officer Grackle when they questioned him. "My friend is an ornithologist whose main interest of study is the kiwi."

"You were talking to someone about a bird?" asked Police Officer Grackle in disbelief.

"That's right," Vinnie Vile said. "I was talking on a landline phone in this house. Check the records." Smugly grinning, Vile continued, "The kiwi is an amazing bird. It's flightless, and it's found only in New Zealand. It's got a really long beak, and it's the only bird with nostrils at the end of its beak. This means that it can locate worms and other insects underground without even seeing or feeling them. It just sticks its nose into the ground and smells them! The kiwi is also famous for its eggs. The kiwi is only about the size of a chicken, but its eggs are almost as big as an emu's eggs! A kiwi's eggs are one of the largest in proportion to body of any bird in the world. Just one egg may weigh 20 percent of the mother's weight! Call my friend in New Zealand. He'll tell you what we were talking about on Sunday between 2:00 and 3:00 P.M."

Inspector Crane called New Zealand. Vinnie Vile's friend said, "Yes, I am an ornithologist. I study birds, and my specialty is the kiwi. Did you know that the kiwi's body temperature is 38 degrees Celsius, which is more like a mammal than a bird."

"Enough bird facts," Inspector Crane cut in. "What time were you talking to Vinnie Vile?"

"Between 2:00 and 3:00 P.M. on Sunday," was the quick reply. "I remember exactly because two other ornithologists were here. Both of them will tell you they were here on Sunday afternoon and heard me converse with Vinnie."

Police Officer Grackle was listening in. He said, "I don't need to hear anything more. I've got enough information to discredit Vinnie Vile's alibi!"

The Alibi (cont.)

What did Police Officer Grackle hear that makes him so sure? It is time to check facts.

Thesaurus



1. What is not a synonym for *vile*?

- Ⓐ disgusting Ⓑ evil Ⓒ kind Ⓓ revolting

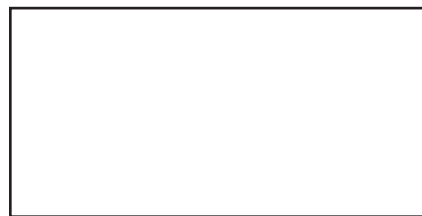
2. What is one food or dish you consider to be vile? _____

Image Search



Key Words:  *kiwi bird*

Draw the outline of a kiwi's head and beak.



Temperature Converter



Is 38 degrees Celsius close to the average human temperature (98.6°F)?

Yes No

Calculator



1. If a kiwi's egg weighs 20% of its body weight, how much would the egg weigh if the bird weighs 10 pounds?

- Ⓐ 1 pound Ⓑ 2 pounds Ⓒ 5 pounds Ⓓ 20 pounds

2. If a person could lay an egg that was 20% of his or her body weight, how big would the egg be if the person weighed 105 pounds?

- Ⓐ 10.5 pounds Ⓑ 15 pounds Ⓒ 21 pounds Ⓓ 25 pounds

Search Engine/Encyclopedia



1. What is the current time and date in Wellington, New Zealand? _____

2. What is the current time and date in Albany, New York? _____

In Your Own Words

Do you think Police Officer Grackle can discredit Vinny Vile's alibi? On a separate piece of paper, write a paragraph in which you explain why or why not. Then, give some reasons why at first one might think Vinnie's friend was completely honest.

Answer Key

Fact Find #1: Nightingale Floors

Thesaurus

1. Possible answers include *odd*, *different*, and *strange*.
2. Possible answers include *typical*, *ordinary*, and *usual*.
3. turns it into its opposite (an antonym)

Image Search

1. Blarney
2. Blarney
3. No, it would be too heavy.

Search Engine/Encyclopedia

1. Tokyo
2. Dublin
3. The castles are not in the capital cities.

Fact Find #2: A Nose of Gold

Dictionary

1. helps you or is good for you
2. to raise money

Atlas

1. False, Oslo, Copenhagen
2. True

Image Search: Yes

Temperature Converter

1. 1,981°F; much hotter
2. -434°F; much colder

Search Engine/Encyclopedia

1. Copper — Cu
2. Iron — Fe
3. Hydrogen — H
4. Gold — Au

Fact Find #3: The Lost City

Dictionary

1. human history, past cultures, and the way people lived
2. C

Image Search

1. cut out of rock, colorful, columns
2. narrow, tall, rocky sides

Atlas

1. Yes
2. Yes

Search Engine/Encyclopedia: right to left, top to bottom

Currency Exchange: Answers depend on the current exchange rate.

Fact Find #4: Visitor from Argentina

Thesaurus

1. huge, boundless, big, gigantic
2. Answers will vary.

Atlas

1. True
2. False, Argentina, Brazil
3. False, Pacific, Atlantic

Translator

1. I am so glad to be here today
2. giant anteater
3. anfibio = amphibian; mamífero = mammal; meant to say *mamífero*

Metric Converter

1. 39 to 47 inches
2. 27.5 or 28 to 35 inches
3. 23.6 or 24 inches

Image Search: Answers will vary.

Fact Find #5: The Alibi

Thesaurus

1. C

Image Search: beak should be longer than head

Temperature Converter

1. Yes

Calculator

1. B
2. C

Search Engine/Encyclopedia: Answers will vary, but the difference between the two times will be 16 or 17 hours.

Fact Find #6: Falling Faster than Sound

Dictionary

1. to fall or drop straight down at high speed

Calculator:

1. 19.47 miles
2. 229 mph

Image Search: Baumgartner's