

1962 First American in Orbit

I. Kindergarten – 2nd Grade

Language Arts

Describe the kind of bicycle you would like and tell where you would ride it.

Mathematics

Price Comparisons: 1962 and today

Social Studies

Oral Histories: Interview using prepared questions

Science

II. 3rd and 4th Grade

Language Arts

Writing project using sentences from interview

Mathematics

Price comparisons: 1962 and today

Social Studies

Science

III. 5th grade and above

Language

Oral Histories

Mathematics

Price comparisons: 1962 and today

Social Studies

Science

Toys

Some toys that children enjoyed in 1962 were much like those from earlier time periods. Wagons, dolls, bicycles, and blocks were still popular. But newer toys such as Etch-A-Sketch and the Easy Bake Oven made the list of most-asked-for toys.

List of Toys

Wagons

Bicycles/tricycles

Paper dolls

Blocks

Etch-A-Sketch

Easy Bake Oven

Toy Pictures

In 5-6 sentences describe the kind of bicycle you would like and tell where you would ride it. This activity could be oral or written.

Price Comparisons: 1962 and Today

Cheerios \$.25/box
Chicken \$.29/pound
Heinz Catsup \$.28/bottle
Jello \$.35/4 pack
Butter \$.66/pound
Gasoline \$.28/gallon
Man's necktie \$.50
Milk \$.26/gallon
Bananas

Product graphics

1. You have just awakened in January of 1962. Today your breakfast is a bowl of Cheerios with milk, a glass of milk, and a banana. Look at the price list above. Tell how much your mother paid for these foods at the grocery store.
2. Use the price list above. How much would the same food items cost your mother today?
3. Today, you are traveling to school on a school bus. Your school system will pay _____ for each gallon of gasoline for your bus. But in 1962, the same gallon of gas would have cost _____. (Grade 2: How much more does that gallon of gasoline cost today than in 1962?)
4. Next week is Christmas. You want to buy your dad a necktie. Today the tie will cost you _____. But in 1962 the same neckties would have cost _____. (Grade 2: How much more will the necktie cost today than in 1962?)

Oral Histories

Oral histories are a good way for students to learn firsthand about 1962, the year that John Glenn became the first American to orbit the Earth. Many members of students' families remember the excitement and suspense of this famous space mission. Students should ask a grandparent or neighbor to relate their memories of John Glenn's flight. Listen carefully or use a tape recorder to capture the stories of the person interviewed.

Suggested questions:

1. How old were you in February of 1962?
2. How did you learn about John Glenn's orbital flight?
3. How did your school use the flight as part of your lessons?
4. What do you remember hearing about the U.S. space program in the news

John Glenn's Orbital Flight

On February 2, 1962, John Glenn, from New Concord, Ohio, rode a rocket into space. He circled the Earth in a small capsule large enough for only one person. His mission was to fly around the Earth three times. He talked to scientists on the ground through a radio while he traveled. John wore a special suit that protected him from the icy cold of space and brought in air for him to breathe. After his third trip around the Earth, John guided his capsule back toward our planet. When he got close to the ocean, a parachute opened, so that he could splash into the ocean. A helicopter picked him up and carried him safely to a huge ship called an aircraft carrier.

Organize the pictures below to track the progress of John Glenn's orbital mission.

Oral Histories

Many people vividly remember the day that John Glenn made his historic orbital flight. Interview family member or neighbor who experienced the excitement of America's success in putting an astronaut into orbit.

Use the suggested questions below to conduct your interview. Listen carefully, take notes, or use a tape recorder to collect responses.

1. How old were you on January 2, 1962?
2. Did your school/class prepare you to watch the flight? How?
3. Were you really excited about the event?
4. How did your family talk about John Glenn's flight?

Write 5 or 6 sentences telling how the person you interviewed felt about the historic event. Be sure to use correct spelling and capitalization. Be careful to use correct punctuation. Read your sentences aloud to make sure they flow. Use the following words in your sentences: astronaut, orbit, orbital flight, John Glenn.

Price Comparisons
1962 – Today

Many items found in homes today were also found there in 1962. By 1962 many homes contained a television set. Radios were still an important source of news and were used to listen to music.

More families owned cars than ever before. Most boys and girls had a bicycle and most households had a telephone. There were no cellular telephones though. All telephones were plugged into a wall and their use was paid for through a monthly phone bill.

Kitchen appliances (stoves, refrigerators, toasters) were similar to the ones we have today but there were no microwave ovens and very few dishwashers. Clothes washing machines and clothes dryers were common.

Price List (Averages):

	1962 (new)	Today
Black and white TV	\$179 -- \$799	\$1,000
Radio	\$15	\$15
Bicycle	\$70	\$160
Stove (gas)	\$150	\$800
Refrigerator	\$400	\$1,000
Clothes washer	\$185	\$850
Clothes dryer	\$130	\$850
Car (avg)	\$4,000	\$20,000

1. Which item on the above list costs about the same today as in 1962? _____

2. How much more does a new bike cost today than in 1962? _____

3. If you earned \$10.00 a week on your paper route, how long would it take to save enough money to buy a new bike? _____ weeks.

1962
Everyday Concerns

While the world watched John Glenn and the other Mercury astronauts train for flights into outer space and successfully complete their missions, people carried on with their everyday lives. Children went to school. Adults went to work. Students joined clubs. And people everywhere enjoyed entertainment.

1. The goal of the Mercury Astronaut Program directed by NASA was to see if humans could survive in space for short periods of time. When the astronauts returned from space, they were treated to parades.

Imagine a parade in John Glenn's small home village of New Concord, Ohio. The day is cold because the parade takes place in March. Pretend you're attending the parade. Describe what you might see and hear. (Responses might be oral, as part of a discussion, or written. Written responses should be 6-7 sentences long with correct spelling and punctuation.)

2. Walt Disney released popular children's movies and 101 Dalmatians was one of his newest. Watch the movie and write 6-7 sentences to tell what it's about. Remember that your response could be oral or written.

U. S. Space Program

Space travel didn't seem real to many people in 1962. In fact, it was the stuff of science fiction. There were many science fiction stories and movies about powerful rocket ships flying through space. Several of them told about traveling to the moon and other planets. Until Americans saw the news reports about Alan Shepard's launch into space as part of the Mercury Program in May of 1961, many people didn't think such a trip was possible. Shepard's flight lasted only 15 minutes but, in 1971 he returned to space and landed on the moon.

Although John Glenn wasn't the first man in space or even the first American in space, he was the first American to orbit the earth. An orbit is a path in space around the Earth. Glenn's flight took place in February of 1962. NASA (National Aeronautics and Space Administration) was very careful to guard the safety of its astronauts. The men traveled in tiny, well-built space capsules that supplied them with air to breathe. Each man named his own capsule. With help of his children John Glenn named his capsule Friendship 7. Each astronaut used the number "7" in the name of his capsule because, in the Mercury Program, there were seven astronauts.

Complete the following sentences using the word bank below.

1. Alan Shepard traveled above the Earth in a _____.
2. Alan Shepard was pushed into space by a powerful _____.
3. Even though his flight was short, Alan Shepard needed to take _____ with him to breathe.
4. Ten years after his first space flight, Alan Shepard traveled all the way to the _____.
5. John Glenn was the first American to _____ the Earth.
6. Men who flew into outer space were called by the new title _____.
7. The agency that directed the space program is called _____.
8. There were _____ astronauts in the Mercury Program.

Word Bank:

air
moon

orbit
astronaut

NASA
space capsule

rocket
seven

Oral Histories

Oral histories are a good way for students to learn firsthand about important events. Many people who were old enough to remember John Glenn's orbital flight in 1962 are living today and would enjoy being interviewed by a student.

Listen carefully or use a tape recorder to capture the stories you hear.

Use the following questions to conduct your interview.

1. How old were you in 1962?
2. How did you learn about John Glenn and his orbital flight?
3. Did your school prepare students to view the flight as a current event?
4. Did your school use the flight as part of your lessons?
5. What do you remember hearing about the U.S. space program in the news?
6. What did John Glenn's achievement mean to you?
7. How did your family discuss the John Glenn orbital flight? The space program?

The first U.S. orbital space flight in February of 1962 was a giant step for America in the space race. John Glenn orbited the Earth in his capsule, named Friendship 7, three times. Yuri Gagarin, a Russian cosmonaut, was the first human in orbit. Gagarin's flight took place in 1961. His capsule was named Vostok 1. The space race was a contest between the two nations. By February of 1962, the U.S. was playing catch-up.

Think about the following:

1. Each orbit of Friendship 7 took 90 minutes to complete. Not counting the time needed to achieve orbit and complete re-entry, how long (in minutes) did John Glenn spend orbiting the planet?
2. Yuri Gagarin in Vostok 1 orbited the Earth one time in 108 minutes. How much longer did it take Vostok 1 to make one orbit than Friendship 7?
3. During each of Glenn's orbits he traveled 25,300 miles around our planet. How many miles did he travel during all three orbits?
4. John Glenn was the first American astronaut to eat in space. He ate a tube of applesauce one hour and four minutes into his flight. Did John eat during his first, second, or third orbit around the Earth?

Vietnam War on the Homefront

In her living history presentation, Clara Glenn talks about events that were of great concern in 1962. She worries about America's involvement in the **Vietnam War** in Southeast Asia. Young American men are required to "register for the draft" when they reach the age of 18. The military **draft** inducts American men into the armed services (U.S. Army). Many servicemen are sent to fight in the Vietnam War. At home, the war is becoming unpopular.

Some citizens doubt the need for the war. They had been told that fighting in Vietnam would keep the world safe from the spread of **communism**, a form of government very different from our **democracy**. But some Americans have begun to believe that is not true. They have also begun to lose faith in the country's leaders who insist that they must continue to fight.

Protests against U.S. involvement in the war are springing up around the nation, especially around colleges and universities. Students and non-students alike are **marching** in the streets, carrying signs, chanting, and singing what are known as protest songs. They call for peace. Fearing riots, state governors and city mayors call out police officers to control crowds.

Some **protestors** stage "**sit-ins**". A sit-in is a protest in which people sit down in a place that will get them attention. They refuse to move even if they are blocking traffic. They also sing, chant, and call for peace. Once in a while, police are called to take away the protestors who relax their bodies. They become limp, dead weight, so they are difficult to carry from the site of the sit-in. In many cases, participants of sit-ins are arrested.

Sometimes angry protestors and angry police officers clash and fight each other. Peaceful protests occasionally turn into **riots**, and people get hurt. Some protestors have been arrested. For many Americans, this is a time of anxiety and fear.

Often protests are staged in churches or other building where speakers, some famous, talk to crowds who have come to take part in **rallies** for peace. They encourage people to write letters to their government officials and congressmen asking for help in ending the war. Many anti-war songs are written and sung during this time.

Clara is right to worry about this painful chapter in our history.

Using the terms in bold type in the paragraphs above, complete the following:

1. Name three ways Americans showed their disagreement with the Vietnam War.
2. What two types of government are mentioned in the paragraphs above? Which type is the American form of government?
3. What word describes a non-peaceful protest in which people and property can be harmed?
4. Tell where in the world the country of Vietnam is located.
5. In your own words, describe a military draft.

Students in 1962

In 1962 students had the opportunity to join many school clubs. Sports clubs, service clubs, and clubs that centered around school subjects like science, journalism, and languages were popular. To encourage language students to improve their learning of a new language, some teachers set up a system of pen-pals. Pen-pals are people who write letters to each other for the purpose of getting to know each other and their cultures.

Pretend that it is 1962 and you are writing to a Spanish student your age who wants to improve his/her English skills. Write a short letter (2-3 paragraphs) describing the excitement of John Glenn's orbital flight. Your letter could be written about getting ready to watch the launch. It could describe the day of the launch (it took place on a school day). You could even write about the celebrations that took place following John Glenn's return from space.

Remember to use your language arts skills. Use proper capitalization and punctuation, spelling and grammar. Make sure you write in complete sentence. If you need a name for your pen-pal, you may use Ernesto or Jaunita.

A Danger-filled Flight

John Glenn was no stranger to dangerous jobs. As a fighter pilot during World War II, he risked his life over Southeast Asia to help the U.S. and its allies win the war. He served again during the Korean Conflict. Later, he became a military test pilot making sure that planes performed as safely in the air as engineers had planned at their drawing boards and in their laboratories. In doing these jobs, John Glenn saved many lives.

As an astronaut in the Mercury Program, John continued to do dangerous work. While many Americans knew him as a war hero, many more would remember him as the first American to orbit the Earth.

There are plenty of stories describing the long difficult road to liftoff for the Mercury astronauts. For John Glenn, the months before launch involved many cancelled flights. On those occasions, Glenn sat in his capsule, Friendship 7, and waited only to be removed and taken back to Mission Control. Finally, on February 20, 1962 at 9:47 a.m., the rocket and the weather cooperated. The word was, "GO".

Liftoff was perfect as the Atlas rocket carried Lt. Col. John Glenn from Cape Canaveral, Florida to its destination 160 miles above the Earth's surface. From there Glenn would orbit the planet three times. Trouble struck just after the first orbit had been completed. 90 minutes into the flight, difficulty with the automatic control systems forced Glenn to take manual control to keep the capsule stable.

During the second orbit, NASA engineers feared that the capsule's heat shield had come loose. Upon reentry the capsule had to be turned so that it could drop into the atmosphere, then into the sea, on its bottom. That's where the heat shield was located, just beneath the retrorockets which were anchored with heavy strapping.

The plan was always to throw away the retrorockets after they had done their job of turning the capsule. NASA instructed John not to dump the rockets but to keep them in place across the heat shield. The mission control crew hoped the strapping would hold the shield in place. If not, reentry temperatures of 9,500 degrees Fahrenheit (almost the temperature of the sun's surface) would incinerate the capsule and its pilot.

A defective light switch on a control panel had warned of trouble that wasn't there. The heat shield wasn't loose at all. John splashed safely into the Atlantic, 800 miles southeast of the Cape, where he was picked up by the aircraft carrier Noa.

Discuss the following:

1. What do you think the effect on the U.S. space program would have been if John Glenn had not survived his orbital flight?
2. Inside the capsule John's helmet was only 18 inches from his instrument panel. How do you think this tight space would affect astronaut fitness for orbital missions?
3. John's top speed during orbits was 17,545 miles per hour. Why do you think he didn't feel as if he were moving through space? You might have to research some physical science for this one.