



20 years

Impulse





IMPULSE

INTERVIEW WITH
CREATORS AND
EDITORS

FEATURES OF
SCHOOL LIFE

THEN
AND NOW

SCHOOL NEWSPAPER “IMPULSE” 20 YEARS ON THE WAY!



Today, I am pleased to welcome you to the pages of our jubilee newspaper “Impulse“. For twenty years now, we have been confidently moving forward, bringing you the most current news, important events, and bright moments of our school life. At this anniversary moment, we want to revisit the days when “Impulse“ was just beginning its journey and celebrate all the achievements we have accomplished over the years. In this special issue of “Impulse,“ you will find plenty of interesting materials, interviews, photographs, and articles. We have gathered all the best to give you a magical glimpse of our past journey.

Thank you for being with us all these years. May “Impulse“ continue to lead us to new heights!

Nikita Makarov



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INTERVIEW WITH CREATORS AND EDITORS

We met with those who invested their hearts and talents in creating the newspaper at its inception, as well as those who recently joined our team. During these meetings, we discussed the development and changes that have occurred over the years of the newspaper “Impulse” existence.

Vladimir Nikolaevich Shubinkin, a graduate of our lyceum and one of the first editors of our newspaper, who continues to be connected with our lyceum today as a computer science teacher.

- How did “Impulse” come about and were there any competitors in the lyceum?

- I first heard the idea of creating a school newspaper from my classmate Alexey. He voiced it to our class. But, unfortunately, no one supported it then. After a while, the pioneers appeared - the newspaper “Breezes of the Wind” in a wall format. It was something new for the lyceum, and for a while, the newspaper enjoyed great popularity despite irregular updates. But the core editorial team soon graduated from school, and the newspaper ceased to exist. The second ones were “Reflections”. Honestly, I already forgot whether they or we were the first to start releasing not a wall, but a handout version. But when the second newspaper appeared, I felt somehow offended for Alexey's idea, because he voiced it before the competitors appeared. Then we still gathered and decided to release our product.



- What moments or events in working on the newspaper have been most memorable for you?

- Alexey became the editor-in-chief, the layout designer, and the inspiration. I got the position of deputy editor-in-chief. There were



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also a couple of correspondents and even one “loafing idler.” Alexey also suggested the name “Impulse.” I liked it: on one hand, it's a physical term that fits well with the physics and mathematics lyceum, on the other hand, it associates with the phrase “impulse of life” and similar expressions. I remember for the first issue, I interviewed the editor-in-chief of “Reflections.” In those prehistoric times, when phones were at best push-button relics, Alexey handed me a clunky tape recorder, likely recording on tape with atrocious quality. Thus, I had to rely heavily on memory to reconstruct the interview. Our humble beginnings saw us pinning the inaugural issue of “Impulse” to the central column of the third floor, adjacent to the windows. As we gained momentum, we transitioned to laying out subsequent issues on the recreation tables. A bold endeavor to print an issue in a proper printing house on newsprint paper ensued, only to be thwarted by exorbitant costs. In an attempt to recoup expenses, we attempted to peddle copies for a mere 50 kopecks each. Such were the trials and tribulations of our early days, etched in the annals of our newspaper's history.

- What changes have you noticed in the “Impulse” newspaper during your absence from school, and what would you wish for your native newspaper?

- Upon my return to school, I was taken aback to hear from a teacher that “Impulse” not only perseveres but also shows signs of progress. It appears that the caliber of articles may have even elevated. I sincerely hope our beloved local newspaper continues to thrive, occasionally gracing us not only with standout pieces but also with comprehensive editions. Witnessing such resilience and advancement in our community publication is undeniably heartening.

The work is easy, 15 minutes will be enough.

@Shubinkin V. N.



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Alexey Zhiznevsky - a graduate of our lyceum, the first editor-in-chief of our newspaper.

- How did Impulse come about?

- Answering the question of how “Impulse” appeared, I will tell a little about the backstory. When I studied at the previous school, we also published a newspaper in the form of a wall newspaper. It came out once every 2-3 months, and we designed it on tracing paper. When I entered Lyceum 131, I saw how students from a parallel class released their printed newspaper, and I remembered my idea. In general, we decided to make a newspaper. But this time it was printed. We gathered together with the class and asked the guys who wanted to join this business. Thus, a small team was formed, which worked closely on new issues. At first, these were printed sheets that were posted on the bulletin board. I immediately decided that it would be a circulation newspaper, with 1 issue posted on the bulletin board.



- What moments or events in working on the newspaper were the most memorable for you?

- At that time, I found the idea interesting that we would have 2 newspapers in school. The newspaper from the students of the parallel class and ours. We could have debates on our pages and fight for the reader's attention. But unfortunately, the team from the parallel class did not release the newspaper on a regular basis. We released 1 issue, and then saw an article in the printed publication of our competitors. The article was called “Impulse Newspaper, Attack of Clones,” and it criticized the materials published on our pages. We published a response in the next issue...

- How did you choose the name and logo of the newspaper?

- We chose the name “Impulse”. It seemed to fit very well in



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various senses. Impulse is a term from physics, and we are still a physics and mathematics lyceum. This name is close to our scientific field and our educational institution. Impulse is a measure of the body's motion, which is equal to the product of mass by velocity. Naturally, this shows that we are constantly moving, not standing still, moving forward. In the word “impulse,” there is such a particle as “pulse,” so here we wanted to emphasize that the newspaper is a reflection of the pulse of school life. We tell about what is happening in school, what is happening in the life of the lyceum. We reflect the life that takes place within the walls of our educational institution. The logo that was invented is like a wave, as if on the screen of an oscilloscope. This logo reflects the pulse, so it is also multifaceted.

- What would you wish for your native newspaper?

- I extend my heartfelt wishes for the “Impulse” newspaper to continue thriving as a cherished tradition of our lyceum. Its enduring presence brings immense joy, consistently delivering insightful and engaging content that delights us all. Witnessing the newspaper persist and evolve is a source of great satisfaction. Moreover, I envision the future of the “Impulse” newspaper embracing innovation beyond the realms of traditional print and online formats. Introducing new mediums, such as video releases, would undoubtedly enhance the reader experience and keep the publication relevant in today's dynamic media landscape. As trends in content continue to evolve globally, I believe it's only a matter of time before we see such adaptations taking place. While it may be unrealistic to expect immediate leaps akin to those of Olympic champions, there's inherent value in striving for excellence. This commitment to quality ensures that our newspaper remains a vital and respected part of our educational environment.

You are the blacksmiths of
your own happiness.

@Solovtsova O. S.



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Amirova Rozaliya - a graduate of our lyceum, the chief editor of “Impulse“ from 2014 to 2016.

- How did you get involved with “Impulse“?

- During my studies at the Lyceum, I decided to join the creation of the school newspaper. It was a great experience for me, which allowed me to learn how to work in a team and develop my communication skills.

- What moments in working on the newspaper were the most memorable for you?

- Participation in contests and events for school newspapers was very interesting and useful. We could exchange experiences with other editorial teams, learn new techniques and methods of work. Seeing how our teachers and classmates were happy about the release of a new issue of the newspaper was very pleasant and motivated us to work even harder. -

What didn't you manage to do during your time working in the editorial office of the “Impulse“ newspaper?

- Creating a newspaper is not just about writing articles, but also about implementing all ideas for sections. It was necessary to carefully think through the structure of the newspaper, select the most relevant topics, and create content that would be interesting not only to students but also to teachers and parents. Working on the newspaper,

I learned to quickly and efficiently work with information. This helped me develop organizational and planning skills, as well as improve my ability to analyze and process large volumes of information.



What's the difference, I don't have any imagination anyway.

@Khokhryakova E.A.



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Ekaterina Petrova - a graduate of our lyceum, the chief editor of “Impulse“ from 2017 to 2022.

- How did you come to “Impulse“?

- In 2017, when I was only in 7th grade, Elvira Kotdusovna Zagidullina suggested that I start writing articles for the school newspaper “Impulse“. Not suspecting that this would be the beginning of my fascinating journalistic career, if it can be called that, I agreed. Since then, my life has changed a bit: I became the chief editor, wrote letters from the chief editor on the front page.



- Which sections did you prefer?

- I had my own sections in the newspaper: “We are proud of them“ and “Interview with an interesting person“. The heroes of my articles were the students of the Lyceum themselves, and it was fascinating.

- How did you manage the official “Impulse“ group on VKontakte social network?

- In the following year, in 2018, I took on a new task and began to manage the official “Impulse“ group on the VKontakte social network. It was difficult to keep the interest of readers fresh and varied with posts every day, but I coped. Now it's already 2024, I'm already a graduate, but I'm pleased to see that the newspaper continues its work and my group is still popular!

- How do you assess your contribution to the development of the “Impulse“ newspaper?

- I am glad that my contribution to the development of “Impulse“ has remained noticeable. Perhaps some of my readers or subscribers also dream of becoming journalists or writers, and perhaps someone is already

Too much good is evil!

@Semenov A.V.



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honing their skills and preparing to become a new talent in the world of journalism. I hope that my experience and hard work will help someone to fulfill their dreams, and perhaps their works will also be printed on the pages of “Impulse“. This media project has become a significant part of my school life, and I am proud to have contributed to its development!

Holidays at school

Holidays within the walls of the lyceum become not only a reason for joy but also a special time when we create a unique atmosphere of happiness and mutual understanding together. From preparation to the completion of each event, we experience a sense of unity and inspiration that helps us overcome any difficulties. In this section, we invite you to see which holidays in our lyceum are celebrated in a special way.

“The Gifts of Autumn“ Exhibition - this celebration marks the beauty and abundance of autumn. Students present their artistic works as well as recipes and culinary masterpieces created using autumnal products.

Teacher's Day - a particularly significant holiday for our lyceum, as it is dedicated to those who work every day for our development and education.

New Year is celebrated with joy and happiness. Students organize a themed concert and also participate in the organization of New Year decorations.

Give them a grenade for
March 8th!

@Mitachkin V. I.

February 23rd (Defender of the Fatherland Day) - this day is dedicated to celebrating the courage and heroism of men. Events are held at the lyceum



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dedicated to the defenders of the Fatherland, such as sports competitions and thematic lessons.

Ski trip - this is remains a cherished event for students, offering something for everyone to relish, whether it's the thrill of the slopes or the camaraderie of the journey.

March 8th - this International Women's Day, serves as a poignant occasion for lyceum students to express gratitude and admiration for the women within their community, extending warm wishes to teachers, administrators, mothers, and grandmothers alike.

Victory Day - stands as a solemn commemoration of the triumph in the Great Patriotic War. Lyceum students honor this day by partaking in the revered “Immortal Regiment” march, paying homage to the heroes of the past.

Children's Day is another festive affair, where students embark on foot or bicycle hikes, fostering a sense of adventure and camaraderie among peers as they explore the great outdoors. These cherished events form the tapestry of memorable experiences that enrich the lives of lyceum students.





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Guess the Teacher

You are presented with interesting facts about teachers. Your task is to match the fact with the teacher.

- | | |
|--|----------------------|
| 1. He/She lived for 3 months in America and sold ice cream. | A. Shubinkin V. N. |
| 2. He/She experienced an earthquake in Kamchatka. | B. Sochneva T. N. |
| 3. He/She climbed a burning tree to extinguish it. | C. Belyakov A. R. |
| 4. He/She played professional volleyball. | D. Semyonov A. V. |
| 5. He/She set up a Christmas tree underwater in the Blue Lake. | E. Ryabets A. V. |
| 6. He/She participates in the Heroes Race. | F. Aitov R. R. |
| 7. He/She scored 100 points on the Unified State Exam in Computer Science. | G. Zelichyonok A. B. |
| 8. He/She has written over 50 fairy tales in their lifetime. | H. Mitachkin V. I. |

There are a couple of pebbles here...

@Khokhryakova E. A.



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SCHOOL LIFE PARTICULARITIES

School life is a unique period that is remembered for a lifetime. Over the past twenty years, schools have undergone significant changes, affecting various aspects of school life. In this section, we will examine the peculiarities of school life, drawing parallels between the past and the present, as well as discussing the role of Olympiads and exams in the lives of today's students.

Academic Subjects - Over the past two decades, school subjects and curriculum have undergone significant changes. While the emphasis used to be mainly on traditional subjects such as mathematics, literature, and history, nowadays, new disciplines reflecting modern challenges and societal requirements have appeared in the curriculum. For example, information technology, programming, robotics, and global studies have become an integral part of the educational process.

Modern Teaching Methods in schools include the use of interactive technologies such as computers, tablets, and projectors. Teachers utilize various programs and applications to create interactive lessons that help students better assimilate the material. Gamification methods are also actively used, where students earn points or rewards for completing tasks.

Olympiads and exams hold a crucial role in school life, providing students with the platform to showcase their knowledge and secure university admissions. Over the past two decades, they have become indispensable facets of the learning process, shaping students' academic paths and fostering a culture of excellence. Through these assessments, students not only demonstrate subject mastery but also cultivate critical thinking skills and resilience.

Difference exists, square exists, let's decompose!

@Yumatova A. N



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BCOIII

All-Russian School Olympiad (Vserossiyskaya shkolnaya olimpiada, or “BCOIII”) is a system of annual subject Olympiads for students in state, municipal, and non-state educational organizations implementing general education programs. In the lyceum, there are a large number of winners and laureates of the All-Russian School Olympiad, but the best among them also qualify for international Olympiads. We invite you to familiarize yourself with an interview with one of the most famous graduates - Nikita Perov, the winner of the international chemistry Olympiad.

- How did you start your Olympiad journey?

- It all started with a city math club and Olympiads in this subject. I didn't achieve any special success there, but it formed my love for exact sciences. In the lyceum, I became very interested in physics and chemistry, but in the latter, I managed to achieve good results right away and without much effort. That's how my path in Olympiad chemistry began.

- What is the most effective way to prepare for an Olympiad?

- Solving problems from previous years and reading good books. There is no other way. Also, do not forget about practice, which also requires sufficient attention.



- What advice would you give to future and current Olympiad participants?

- Rest more and worry less about Olympiads. As cliché as it may sound, life doesn't end at Olympiads; it only begins. And you should try to make this experience as positive as possible.



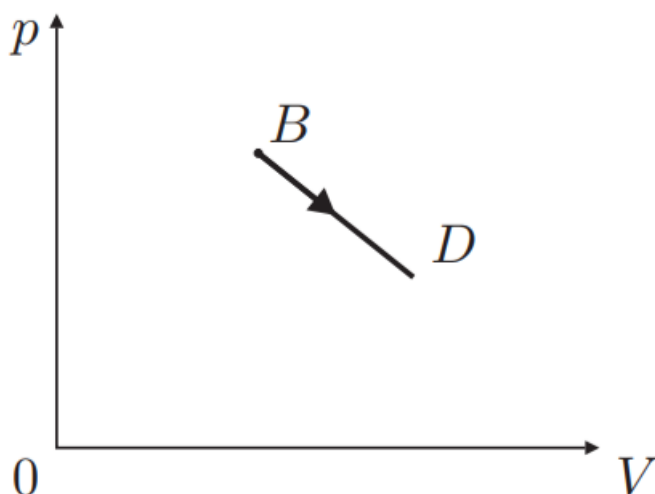
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Olympiad Tasks

In this section, we invite you to consider interesting and captivating problems in mathematics and physics from the all-Russian stage of the All-Russian School Olympiad (Vserossiyskaya shkolnaya olimpiada, or “BcOIII”).

The head of the Mint wants to issue coins in 12 denominations (each in a natural number of rubles) so that any amount from 1 to 6543 rubles can be paid without change, using no more than 8 coins. Can he do this? (When paying the amount, you can use multiple coins of the same denomination.)

One mole of an ideal multi-atomic gas is transferred from state B, where the temperature is $t_B = 217^\circ\text{C}$, to state D, so that the pressure linearly depends on the volume, the temperature monotonically decreases, and heat is supplied to the gas throughout the process (see figure). Find the maximum possible work A_m that this gas can perform in such a process.



Basketball is not like chemistry,
you have to think here!

@Kuramshin B. K.



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3/4 of the truth

Before you are 4 interesting facts about our lyceum, 3 of which are true, and 1 is false. Guess which fact is false.

1) Like the Suyumbike Tower in Kazan, our lyceum slightly leans towards the ravine every year. To avoid serious consequences, the doors in the basement are filled with a thick layer of sand.

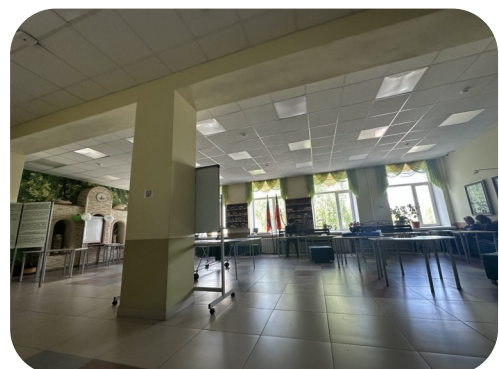
2) Many secrets are hidden in the wing of physics. Once, in the distant past, one of the flights of stairs in this wing collapsed, adding a new mystery to its history.

3) Have you noticed the abundance of space in the technology and music classrooms at the lyceum? This is because these rooms were originally occupied by a gymnasium, which has since been relocated to a separate block, allowing for more room for creative endeavors and experiments.

4) Additionally, there have been significant changes in the layout of the lyceum. Previously, the assembly hall resided on the third floor, while the recreation area was situated on the second. However, logistical challenges in transporting equipment prompted a rearrangement. Consequently, the assembly hall was moved to the second floor for easier access during events, while the recreation area found a new home on the third floor.

“The one who says that school is a second home is lying!”

@Zharkova S. B.





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Then and Now

Over the past twenty years, the city of Kazan has undergone significant changes, reflected in its architecture, infrastructure, and overall atmosphere. We offer you to familiarize yourself with the main events that our city has hosted over the past 20 years.

The 2013 Summer Universiade

Kazan became the first city in Russia to host the Summer Universiade. It was the largest sports event that attracted more than 13,000 athletes from 162 countries.



International Exhibitions and Conferences

Kazan regularly hosts international exhibitions and conferences in various fields, including the oil and gas industry, medicine, education, tourism, and others.





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2015 World Aquatics Championships In 2015, Kazan hosted competitions in swimming, diving, synchronized swimming, and water polo.



2018 FIFA World Cup Kazan was one of the host cities for the 2018 FIFA World Cup. Four group stage matches and one Round of 16 match took place at the Kazan Arena stadium.



2024 Future Games The Future Games is the first international multi-sport tournament in the fidgetal concept. Over 260 international teams and more than 2000 participants from various countries took part in the tournament. The competition format for fidgetal disciplines involves the use of developments in game development and virtual reality. The idea is to unite the virtual and real worlds. The winning team is determined by the total points accumulated in two stages.





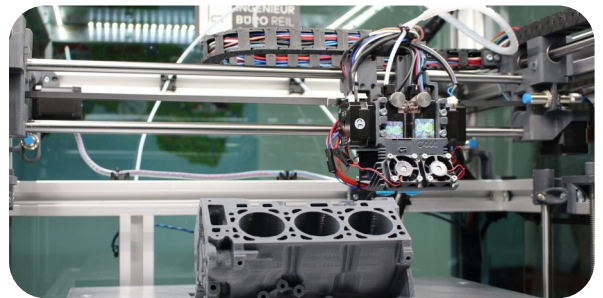
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The Era of Specialized Machines

This article is dedicated to the exciting world of specialized machines, technologies that are actively penetrating various spheres of life, from manufacturing to medicine and household chores. In the era of the digital revolution, when automation becomes increasingly important, understanding and evaluating the role of these machines is crucial.

Manufacturing Machines

Robotic assembly lines in the automotive and electronics industries reduce production time and enhance its quality. 3D printers, based on additive manufacturing principles, revolutionize the ways of creating parts and components.



High Technologies and the Future

The era of specialized machines is on the cusp of unveiling its full potential. With relentless advancements and breakthroughs in artificial intelligence and machine learning, the horizon is ripe with promise for even more exhilarating and transformative developments in the next decade. As these technologies continue to evolve, we anticipate unprecedented levels of efficiency,



Well, gentlemen...

@Zelichenok A. B

productivity, and creativity across various industries and sectors. From autonomous vehicles to personalized healthcare solutions.



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Scientific fillword

You are presented with 5 scientific terms, each of which has one missing word. Find it in the fillword.

The theorem of “2 millionaires“ (limit existence criterion) - if one is bounded between two others, which have the same limit, then it has the same limit.

..... algorithm - is a method for solving optimization problems, based on the idea that the problem-solving process can be broken down into steps, at each of which a decision is made.

..... second - is a time measurement standard, equal to the duration of 9,162,631,770 periods of oscillation of the electromagnetic wave emitted by a cesium-133 atom.

Alcohols - are of hydrocarbons, in which one or more hydrogen atoms are replaced by an -OH group.

Two graphs G1 and G2 are if there exists such a bijective mapping between their sets of vertices and edges that the corresponding edges of the graphs G1 and G2 are incident to the corresponding vertices of the graphs.

I	D	R	D	C	V	R	U	E	R	E	R	I	O	C
E	N	I	P	D	C	I	M	O	T	A	Y	U	I	E
I	E	G	O	C	E	M	R	C	U	A	E	T	I	D
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T	O	C	G	Y	I	T	E	E	C	E	O	D	R	C
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I	P	E	P	R	M	G	I	Y	O	E	E	E	O	O
I	S	E	D	E	R	I	V	A	T	I	V	E	S	U
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M	R	A	A	O	V	O	I	C	T	O	R	E	R	E



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Project Activities in School

Project activities in school provide a unique opportunity for students to demonstrate their creative and analytical abilities, develop teamwork skills, and learn to independently find solutions to complex problems. Today, we will ask questions to **Vladimir Varenik** - a student of class 10G.

- How did the idea of creating a development environment come about?

- The idea of creating a development environment came after I complained about the poor performance of PyCharm on school computers and laptops. I decided to investigate the cause and found out that PyCharm was not optimized. Then I noticed Wing, written in Python, and realized that something similar could be created, but with broader capabilities.

- Vladimir, will there be a future for your project after presenting it at the “Days of Science“?

- Undoubtedly, after the “Days of Science,“ the project will continue to develop because there is no limit to perfection. There are many unfinished tasks, such as support for C/C++, the Ubuntu operating system, and so on. Vcode has potential, and therefore it has a future.

- Who should consider switching from popular IDEs to Vcode?

- Those who should consider switching to Vcode are those who do not have a very powerful computer that can run Visual Studio and PyCharm, as well as those who have little free disk space. Also, it could be people who do not need a bunch of settings that are available in popular development environments.

I saw this on TikTok...

@Koskovskaya E. E



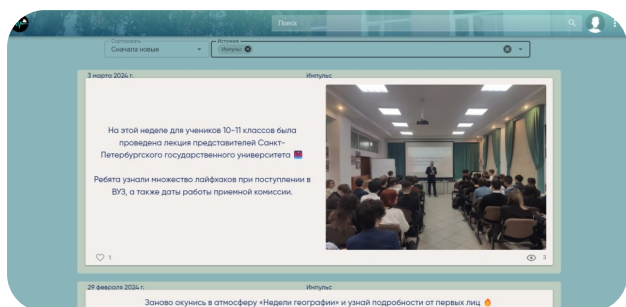
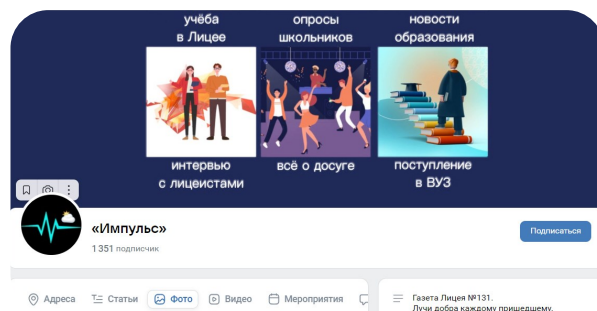
Development of the “Impulse” Newspaper Today

The “Impulse” has indeed come a long way in its development. Previously, the newspaper was printed on paper, but now we have transitioned to the format of posts on the social network VKontakte. This is very convenient because now everyone can easily read our newspaper anytime and anywhere.

Moreover, **Maxim Smirnov** from class 10G has developed a website for the “Impulse” newspaper. This means that now all the materials we publish on VKontakte are also available on our website. This is very convenient for those who prefer to read news online.

We are very pleased that our newspaper is evolving and becoming more accessible to everyone. We will continue to work to ensure that our materials are interesting and useful to all our readers.

<https://vk.com/impulse131>



<https://impuls131.ru>



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Nikita Makarov

Kazan, MAGEI “Lyceum N.131”

2024