**FORT ST. JAMES SECONDARY**

**SCHOOL**

**SENIOR COURSE**

**SELECTION BOOKLET**

**2022 – 2023**



## INTRODUCTION

At Fort St. James Secondary our timetable is student driven; we offer the courses which students have indicated they wish to take. Course selection time is a crucial part of the process which will develop our 2022-2023 timetables. Your task is to complete a course selection sheet. We will use these sheets to prepare the list of courses which will be placed in next year’s timetable.

This booklet has been prepared to give parents and students an overview of potential course offerings. It may not include all the information you need to make wise choices. We encourage you to talk to teachers about the courses they teach; to other students about courses taken in the past; and to the counselor about post-secondary programs and the requirements for each. You need to be informed. We are here to help.

The planning sheets at the end of the booklet will help you see how the pieces of your program fit together.

\*\*Please note\*\*

You will note that some courses have a course fee requirement. The fees listed are tentative at this point and will be published in final form after approval by the Board of School Trustees this spring.

**COUNSELLING**

The School Counsellor is available to assist students with the course selection process as follows:

1. Assist students in selecting courses appropriate to their chosen career path.
2. Assist students in determining a career path.
3. Assist students in choosing an appropriate post-secondary institution.
4. Assist students in choosing courses that will lead to graduation.
5. Set up student course selection process, gather and record these selections and generate individual student timetables for each student.
6. Provide student course information to parents.

**APPLIED SKILLS 11 – TEXTILES (MTEX 11/12)**

Pre-requisite:

Description:

This is a projects-based course focused on creating with fiber, fabric and leather. Participants will learn to use sewing machines and may learn to use the overlock machines.

**WORKPLACE OF MATH 11 (MWPM 11)**

Pre-requisite: Apprenticeship and Workplace of Mathematics 10

Description:

Students in this pathway are those interested in entering the **majority of trades** and for **direct entry into the work force**.

General Topics: Slope and Rates of Change, Graphical Representations, Surface Area, Volume, and Capacity, Trigonometry of Right Triangles, Scale Representations, Financial Services, and Personal Budgets.

\*\*The transition from AWMath11 to Foundations of Math11/12 or Pre-Calculus 11/12 is not advised as many of the topics are unique to each program.

\*\*This course satisfies the math requirement for graduation.

## ART 11 (MVAST 11)

### Pre-requisite: None

Description:

The primary focus in Art 11 is the development of personal imagery in students’ studio work, and awareness that art is, at least in our culture, a highly personal and personalized endeavor. Students will be expected to work in a number of mediums where it is deemed appropriate (drawing, painting, ceramics, sculpture). Students will be expected to do some art history. As this is a Grade 11 class, a high degree of independent responsibility is expected from all students, as well a high degree of craftsmanship and care of studio projects. Students will participate in the planning of a semester end gallery show.

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## ART 12 (MVAST 12)

### Pre-requisite: Art 11

Description:

The primary goal of Art 12 is to foster independent and mature work habits in students. Students will use their knowledge of the elements and principles of art to create 2D and 3D works. We will continue to broaden our knowledge of art history and the contemporary art scene. Art 12 students will plan and participate in the semester end gallery show. A high degree of craftsmanship and independent responsibility is expected from all students at the Art 12 level.

**BC FIRST PEOPLES 12 (BCFP 12)**

### Pre-requisite: None

Description:

In BC First Peoples 12, students have an opportunity to learn about the diversity of First Nations cultures and traditions found in British Columbia. Students will study a variety of First Nations stories, films, and artwork. The course also examines the impact of the fur trade, colonization, and government assimilation policies. Students will examine the many ways First Nations have resisted these historical challenges and moved toward self-government, independence, and healing.

## This course is being offered as a Distributed Learning Course through Fort St. James Secondary School. Students will be able to access the course content through V-class, videoconferencing, webcasts, podcasts, and online support.



BIOLOGY 11 (MLFSC 11)

LIFE SCIENCES

### Pre-requisite: Science 10

Description:

The following concepts will be covered through the use of labs, projects, and assignments: Adaptation and Evolution (basic structure and role of DNA, natural selection and extinction), Microbiology (Viruses Kingdom Monera, Kingdom Protista), Mycology (Kingdom Fungi), Plant Biology (Green Algae, Mosses, Ferns, Gymnosperms, Angiosperms), Animal Biology (Porifera, Cnidaria, Platyhelminthes, Nematoda, Annelida, Mollusca, Echinodermata, Arthropoda, Chordata-Subphylum Vertebrata), and Ecology. This course invites students to learn new lab techniques, perform dissections, and participate in a variety of scientific experiments.

\*\* This course satisfies the science requirement for graduation.

## BIOLOGY 12 (MATPH 12)

**ANATOMY & PHYSIOLOGY 12**

Co-requisite: Chemistry 11 & Biology 11(Strongly recommended)

Description:

The following concepts will be covered through the use of labs, projects and assignments: Cell Biology (Cell Structure, Cell Compounds, Biological Molecules, DNA, Protein Synthesis), Cell Processes and Applications (Transport Across Cell Members, Enzymes), Human Biology (Digestive System, Circulatory Systems – Circulation and Blood, Circulatory System – Heart Structure and Function, Respiratory System, Nervous System – Neuron, Impulse Generation, and Reflex Arc, Nervous System – Divisions of the Nervous System and the Brain, Urinary System, Reproductive System).

## CALCULUS 12 (MCALC 12)

**Video Conferencing**

### Co-requisite: Principles of Math 12

Description:

Calculus 12 is a course that exposes students to the concepts found in a typical first year study of University Calculus. Historically, most first year university students struggle in calculus if not previously exposed to the topic. The purpose of this course is to give students an experience of Calculus so that they will find better success in Calculus at the post-secondary level. The course is taught with very little use of graphics calculator technology, as this is the philosophy followed by many university and college level calculus programs. If all concepts for Calculus 12 are completed early, some introductory topics in Linear Algebra (Matrices) will be introduced to students as well.

The general topics covered in this course are…

* Pre-Calculus Review
* Limits and Definition of Derivatives
* Derivative Rules and Applications
* Integral Techniques and Applications
* Introduction to Linear Algebra (optional)

**CARPENTRY 9-12**

Pre-requisite: None

Description:

These courses are for students to understand and evaluate the purpose and vocation of carpentry. Students will progress from learning basic skills and equipment operations to developing advanced skills within the wide array of woodworking options available to them. Students will have a great deal of freedom in their choice of project type (whether it be wood art, furniture making/joinery, CNC design and implementation, traditional crafting and carving, residential framing etc.) but will be expected to work diligently on a daily basis to improve their skills in their chosen area of focus.

## CARRIER LANGUAGE/CULTURE 10

Description:

This course will introduce the everyday conversational phrases and written elements of the Nak’azdli dialect of the Carrier Language. This will be taught through songs, stories, and traditional teachings.

## CHEMISTRY 11 (MCH 11)

Pre-requisite: Science 10

Co-requisite: Principles of Math 11

Description:

The following concepts will be covered through the use of labs, projects and assignments: Introduction to Chemistry (Lab Safety, Measurement and Communication, Matter and Its Changes), Atoms, Molecules, and Ions (Classification, Nomenclature), Mole Concept (Introduction, Molar volume of Gases, Percent Composition, Molarity), Chemical Reactions (Introduction, Stoichiometry), Atomic Theory (Introduction, Periodic Table, Chemical Bonding), Solution Chemistry (Introduction), Organic Chemistry (Introduction, Hydrocarbons, Functional Groups).

\*\*This course satisfies the science requirement for graduation.

**CHEMISTRY 12 (MCH 12)**

Pre-requisite: Chemistry 11

Co-requisite: Math 11 & Math 12

Description:

The following concepts will be covered through the use of labs, projects and assignments: Reaction Kinetics (Introduction, Collision Theory, Reaction Mechanism and Catalysts), Dynamic Equilibrium (Introduction, Le Chatelier’s Principle, The Equilibrium Constant), Solubility Equilibria (Concept of Solubility, Solubility and Precipitation, Quantitative Aspects), Acids, Bases, and Salts (Properties and Ka and Kb Problem Solving, Hydrolysis of Salts, Indicators, Neutralizations of Acids and Bases, Buffer Solutions, Acid Rain), Oxidation-Reduction (Introduction, Balancing Redox Equations, Electrochemical Cells, Corrosion, Electrolytic Cells).

**CLE 10 – CAREER LIFE EDUCATION**

**\*(Graduation REQUIREMENT)**

Students in CLE – 10 will be examining what is needed to graduate, career life choices, how personality, interests and values play a role in defining who we are and what we enjoy doing, and how it can play a role in our future career plans. Students will also examine employability skills, appropriate workplace behaviour, workplace safety, the value of volunteerism, factors that influence career-life choices, financial literacy, and mental health awareness. Students will be using the ***MyBlueprint Platform*** for some projects which will enable them to build a digital portfolio, in addition to creating budgets, resume, cover letter, and track their graduation progress through courses completed and those needed.

**CLC 12 – CAREER LIFE CONNECTIONS COURSE and CAPSTONE PROJECT**

**\*(Graduation REQUIREMENT).**

Students in CLC – 12 will further examine and reflect upon factors that influence their post-high school plans, including work and post-secondary education, and where students can/could receive their education. Students identify their current transferrable skills and how they can further develop them and identify in what situations they will be useful for in either work or post-secondary education, or both. Students establish goals, how they can be achieved, and highlight supports that can be put in place to help them achieve their said goals. Students also identify steps for personal well-being and school/work-life balance and demonstrate appropriate ways to identify themselves in the digital world. Students will get a chance to practice writing scholarship/bursary cover letters and update their resume. Students will be using the ***MyBlueprint Platform*** to complete a variety of assignments, or build upon what they established, skill wise, in grade ten on the platform.

Lastly, students will be examining and presenting upon an area of their interest and will present their Capstone to panel. Students will be demonstrating their learning, skills, and interest of a particular subject, while incorporating their connection to various core competency skills. Students will have to demonstrate their planning and end project. Choice of project demonstration must be discussed with the teacher prior to starting the building of the Capstone project.

EARTH SCIENCE 11 (MESC 11)

Prerequisite: Science 10

Description:

The following concepts will be covered through the use of labs, projects and assignments:

Introduction to Earth and Space Science (significance of earth and space science); Astronomy (Methods of study, origins of the universe, Earth/Sun/ Moon relationship, space technologies); Earth Minerals (Rocks, minerals, geological resource extraction); Geological Time (Age dating, fossil record, Geological Time Scale); Internal Processes and Plate Tectonic Theory (Seismology, Volcanic features, plate tectonic theory); Surface Processes and the Hydrosphere (Characteristics of atmosphere, hydrologic cycle, weathering, erosion, physical oceanography).

\*\* This course satisfies the science requirement for graduation.

## LITERARY STUDIES 10, 11 (MLTS 10/11)

**COMPOSITION 11 (MCMPS 11)**

### Pre-requisite:

Description:

English Language Arts is a foundational curriculum that equips students with the language and literacy skills they will need for success in school, community, career, and life. It provides students with the opportunity to become effective communicators, to develop and express their own ideas, and tot think deeply and critically about the ideas of others.

Through their study of language and texts, students have opportunities to develop a lifelong love of reading, writing, and learning and an appreciation for the power, beauty, joy, and artistry of language and texts. As they explore and create written, oral, and visual texts, students expand and deepen their understanding of both real and imaginary worlds, gaining insight into their own lives and the lives of others.

The focus for the year is primarily texts from around the world.

\*\*Work in the course will help prepare students for the Provincial Graduation Literacy Assessment.

\*\* This course satisfies the Graduation Requirement for a Language Arts course at the Grade 11 level.

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## ENGLISH STUDIES 12 (MENST 12)

### Pre-requisite: English 11

Description:

English Language Arts is a foundational curriculum that equips students with the language and literacy skills they will need for success in school, community, career, and life. It provides students with the opportunity to become effective communicators, to develop and express their own ideas, and to think deeply and critically about the ideas of others.

Through their study of language and texts, students have opportunities to develop a lifelong love of reading, writing, and learning and an appreciation for the power, beauty, joy, and artistry of language and texts. As they explore and create written, oral, and visual texts, students expand and deepen their understanding of both real and imaginary worlds, gaining insight into their own lives and the lives of others.

The focus for the year is primarily authentic First Peoples texts.

\*\*Work in the course will help prepare students for the Provincial Graduation Literacy Assessment.

\*\* This course satisfies the Graduation Requirement for a Language Arts course at the Grade 12 level.

**ENGLISH 12 FIRST PEOPLES (MENFP 12)**

Pre-requisite: English 11

Description:

In English 12 First Peoples, students will have an opportunity to engage with a variety of aboriginal texts from around the world. This is a chance to read and view material that is different from the standard western English curriculum. Authors studied may include Thomas King, Sherman Alexie, Doris Pilkington, Richard Van Camp and Duke Redbird. These authors celebrate the diversity among First Peoples. Students may take both English 12 First Peoples and English 12 if they choose. This course is being offered as a Distributed Learning Course through Fort St. James Secondary School. Students will be able to access the course content through videoconferencing. Online support will be provided.

English 12 First Peoples has a mandatory provincial exam worth 40% and as such meets the requirement for English Language Arts 12. The course is also recognized by a majority of BC universities.

## FOOD STUDIES 11 (MFOOD 11)

### Pre-requisite: FDS 10

Description:

****In Foods 11, students continue to develop their food preparation skills. They will explore the connections between food, culture and the environment and delve further into nutrition.

**FOOD STUDIES 12 (MFOOD 12)**

Pre-requisite: FDS 11

Description:

In Foods 12, students hone the food preparation skills and continue exploring food production and distribution, food policy and the connections between food consumption, the economy and the environment. Healthful nutrition is also explored.

**FOUNDATIONS OF MATHEMATICS 11 (MFOM 11)**

Pre-requisite: Foundations and Pre-Calculus 10

Description:

This program is designed to provide students with the mathematics understandings and critical-thinking skills identified for post-secondary studies in programs that **do not** **require the study of theoretical calculus**.

General Topics: Reasoning, Angles and Triangles, Trigonometry, Statistical Reasoning, Linear Inequality Systems, Quadratic Functions, and Proportional Reasoning.

\*\*Problem Solving Focus Program

\*\*The transition from FMath 11 to AWMath11/12 or Pre-Calculus 11/12 is not advised as many of the topics are unique to each program.

\*\*This course satisfies the math requirement for graduation.

**FOUNDATIONS OF MATHEMATICS 12 (MFOM12)**

Pre-requisite: Foundations of Mathematics 11

Description:

This program is designed to provide students with the mathematics understandings and critical-thinking skills identified for post-secondary studies in programs that **do not** **require the study of theoretical calculus**.

General Topics: Financial Reasoning, Logical Reasoning, Probability, Polynomials, Logarithms and Exponents, Sinusoidal Functions, and Mathematics in the World.

\*\*Strong Problem Solving Emphasis

\*\*Check post-secondary institutions for pre-requisite requirements for this course.

## FRENCH 11 (MFR 11)

Pre-requisite: French 9

Description:

Enhance your in-depth learning of the Francophone world. In grade 11, our goal is for you to express yourself in the French language, communicating with purpose and confidence. You will build successfully on your learning from grade 10. As you continue to explore numerous major French-speaking regions of the world, you will expand your understanding and appreciation of other cultures. Are you interested in university or future travel? You will realize the educational (university requirements), travel, and career opportunities that the French language offers. There is also the opportunity to make and eat French food. I hope to see you here.

**FRENCH 12 (MFR 12)**

Pre-requisite: French 9

Description:

Complete your high school study of the Francophone world. You will demonstrate the ability to express yourself in the French language, communicating with purpose and confidence. You will build successfully on your learning from grades 8-11. As you continue to explore numerous major French-speaking regions of the world, you will greatly expand your understanding and appreciation of other cultures. Are you interested in university or future travel? You will understand the educational (university requirements), travel, and career opportunities that the French language offers. I hope to see you here.



## 20TH CENTURY WORLD HISTORY 12 (MWH 12)

**Video Conference**

### Pre-requisite: Social Studies 10

Description:

History 12 tackles world history in the 20th Century, starting with the end of WW1. It covers such topics as the Russian Revolution, the boom and bust of the 1920s and 30s, the rise of fascism, WW11, Korea, Vietnam, Apartheid, the dissolution of the Soviet Union and the history of the Middle East. It would be a great course for anyone interested in understanding the world today. While the course is an academic course that will prepare you for post-secondary school, students with a general interest in history are also encouraged to enroll in the course. Assignments and projects can be adjusted to meet whatever academic needs you have.

This course is offered as a Video Conference (DL) course from Lakes District Secondary to Fraser Lake Elementary Secondary, Nechako Valley Secondary and Fort St. James Secondary students. STUDENTS INTERESTED IN **BOTH** GEOGRAPHY 12 AND HISTORY 12: Please sign up for both. Either both or one will be offered, depending on interest.



**METAL FABRICATION/MECHANICS 9-12**

Pre-Requisite: None

Description:

These courses are for students to understand and evaluate the purpose and vocation of metal fabrication and mechanics. Students will progress from learning basic skills and equipment operations to developing advanced skills within the wide array of metal fabrication and mechanics options available to forging, machining, stained glass, jewelry making, engine rebuilding, drivetrain work, CNC laser cutting design and implementation, body work etc.) but will be expected to work diligently on a daily basis to improve their skills in their chosen area of focus.

## PHYSICAL EDUCATION 11 – 12 (MACLV 11/12)

### Pre-requisite: PE 10 or PE 11

### Description:

This course provides opportunities through participation in physical education class for students to develop the knowledge, skills, and attitudes necessary to incorporate physical activity

into regular routines and leisure pursuits to live an active, healthy lifestyle. The course will specifically promote fitness for life and social interaction in an activity-based course. Students will also learn to be reasonably knowledgeable spectators of sports and will have opportunities to further enhance skills learned in previous Physical Education courses. This is a senior elective course and those students who enroll will be expected to participate daily with proper PE strip and/or outdoor clothing.

**PHYSICAL GEOGRAPHY 12**

**OUTDOOR EDUCATION 12**

**ENVIRONMENTAL SCIENCES 11**

**GEOES 11/12**

**FULL YEAR (OR 2 QUARTER), 12 CREDIT COURSE**

**Physical Geography 12**

Pre-requisite: Social Studies 10

**Environmental Studies 11**

Pre-requisite: Science 10

**The course runs all year, to allow us to do field work and other activities in all seasons.**

**GEOES 11/12** is a **hands-on, field-based course** in which students will examine how the spheres (biosphere, atmosphere, lithosphere, and atmosphere) interact with each other to create the world in which we live. Through the adoption of Nahounli Creek and collaboration with the John Prince Research Forest, as well as scientific learning in other locations in the area, students will be able to examine these interactions **at a local ecosystem level**. Physical Geography examines them **at a global level**. An emphasis will be put on the role that humans can play in **conservation, restoration, and sustainability** and on how local First Nations use their traditional ecological knowledge on the land base.

As we spend so much time outside in this course, we have included a **Outdoor Education 12 course**. You will have the opportunity to get **certification** for first aid, wilderness first aid, and possibly do some canoe training as well. There are **several overnight trips**, and students will play a **leadership role** in planning and executing the activities we undertake, from games to the food we will eat!

If you are considering **a career in environmental science** or working in the outdoors in any capacity, this will be the course for you. You will get practical **field skills** you can put on your resume that have **led to employment for past students**.

This is an exciting opportunity – please come see Mrs. Boyes and Ms. Inden if you are interested and have other questions! **ES 11 satisfies the Science requirement and PG 12 satisfies the Social Studies requirement to graduate.**

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**PHYSICS 11 (MPH 11)**

### Pre-requisite: Science 10

Co-requisite: Math 11

Description:

Physics 11 is an introductory course that reviews and builds on the basics presented in the junior science courses. The main goal of this course is to generate interest in the subject and provide the background needed for future studies. The major topics covered include the study of motion, forces, momentum and energy. Other topics include special relativity, wave motion, light, sound and nuclear physics. Physics 11 is a laboratory-based course and includes experiments and demonstrations. Any student planning on continuing education at a college, university or technical school should take Physics 11.

\*\*This course satisfies the science requirement for graduation.

## PHYSICS 12 (MPH 12)

### Pre-requisite: Physics 11

Co-requisite: Math 12

Description:

This course is intended for students who might subsequently engage in further study of the subject. The treatment of the topics is mathematically more rigorous, and the range of topics is narrower than in Physics 11. The topics covered are: Vector Kinematics and Dynamics, Work, Energy, Power, Momentum, Equilibrium, Circular Motion, Gravitation, Electrostatics, Electric Circuits and Electromagnetism. The emphasis is on inquiry through the use of demonstration and lab work.

**PHOTOGRAPHY 10-12 (MVAPH 10, 11, 12)**

Pre-requisite:

Description:

This course is an introduction to a DSLR (digital single lens reflex) camera and all the modes that it can shoot in. The assessment of this course is project based and looks into such camera workings as: Shutter speed, aperture monochrome, lighting, portraits, and more. This is a fast paced and very independent course with lots of photos taken and many tricks learned.



**PRE-CALCULUS 11 (MPREC 11)**

Pre-requisite: Foundations and Pre-Calculus 10

Description:

This program is designed to provide students with the mathematical understanding and critical-thinking skills identified for entry into post-secondary programs that **require the study of theoretical calculus**.

General Topics: Sequence and Series, Trigonometry, Quadratic Functions and Equations, Radical, Rational, Absolute Value and Reciprocal Functions, Systems of Equations, and Linear and Quadratic Inequalities

\*\*Algebra Focus Program

\*\*The transition from Pre-Calculus 11 to AWMath11/12 or FMath11/12 is not advised as many of the topics are unique to each program.

\*\*This course satisfies the math requirement for graduation.

**PRE-CALCULUS 12 (MPREC 12)**

Pre-requisite: Pre-Calculus 11

Description:

This program is designed to provide students with the mathematical understanding and critical-thinking skills identified for entry into post-secondary programs that **require the study of theoretical calculus**.

General Topics: Transformations and Functions, Trigonometry, Exponents and Logarithms, Equations and Functions, and Combinatorics.

****\*\*Graphical and Algebraic Emphasis.

\*\*Check post-secondary institutions for pre-requisite requirements for this course.

\*\*This course prepares a student for post-secondary level Calculus.

**SENIOR HUMANITIES STUDIES**

Pre-requisite: English 11

Description:

Within the Senior Humanities Studies classroom, students will be guided through independent, project based and analytic learning, in their choice of the following disciplines: Psychology 11; Family Studies 11 and 12 (both must be completed); Law 12; Social Justice 12; Human Geography 12; Philosophy 12; Comparative Religions 12; Genocide Studies 12; and Comparative Civilizations 12. It is expected that students attempting this course be prepared to be self-motivated learners, willing to attend to the presentations of other student’s learning as well as their own - this will be a collaborative working environment with a personalized focus. English 11 is a pre-requisite unless special permission is given by the principal.

## ART STUDIO (MVAST 11, 12)

### Pre-requisite:

Description:

Explore different media (clay, wood, stone, plaster, found objects) to build and create 3D objects. Use different drawing media (graphite, charcoal, conte, pastel) to create 2D works. Course focus will be on life drawing and improving skills through practice. We will also explore painting media and techniques.

## TEXTILE ARTS AND CRAFTS (MTXT 10, 11, 12)

## Pre-requisite: None

Description:

Students find means of expression, exploration, inspiration, and relaxation in this course. Principles of design are investigated then applied. Three compulsory projects using traditional textile media and techniques (e.g. quilting, knitting, crocheting, needle point, petite point, hand embroidery and cross stitch, other) are followed by OPEN CHOICE student projects, (carving, stained glass, paper arts, leatherwork, beading, weaving, batik, printing, small twig construction, sewing….the possibilities are endless)

**REMOTELY OPERATED VEHICLES AND DRONES 12 (MROVD 12)**

Pre-requisite: Physics 11

Description:

In this course, we work through the theoretical and practical aspects of UAV flight ranging from regulations and legal aspects all the way to physics of flight and navigation. Due to the academic aspects of the Ground portion of this course, it is a prerequisite that you have completed, or be taking, Physics 11.

## MEDIA DESIGN 11/12 (MMEDD 10, 11, 12)

### Pre-requisite:

Description:

This course is the pinnacle of your computer journey. This course is self-paced with a chosen software. The options are as follows: Sketch Up (drafting), Photoshop, Illustrator, Movie Maker, Premiere, Blender, Unity (game creation). Both Filming and Graphics are offered as is a new stream with Microsoft certification in either Excel, Word, or Publisher are an option.



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