# DNCORDIZ EX

Middle School Course Description

### Grade 5 Science



### Characteristics of Science:

- Students engage deeply in inquiry and creative problem solving
- Hands-on experimentation and data collection are integrated through the units
- Students use technology to learn and to share their learning
- Students explore the interdisciplinary connections embedded in real-world problems
- Students develop their technical literacy as they read, write and present

### **Resulting Dispositions**

Concordia Science Students are

- Skilled Investigators
- Inspired Innovators
- Effective Collaborators
- Curious Questioners
- Lifelong Learners

These skills equip students to collect and process scientific information necessary to investigate and understand their world. All Concordia science courses align with Next Generation Science Standards (NGSS). Every NGSS standard has three dimensions: disciplinary core ideas, science and engineering practices, and crosscutting concepts. This integration of rigorous content and application reflects how science and engineering are practiced in the real world.



### Course Overview

#### Earth's Systems

In the first unit of Grade 5 Science, students build an understanding of the systems and resources essential to life on Earth. Emphasis is placed on the interactions that exist between Earth systems such as the geosphere, biosphere, hydrosphere and atmosphere. At the completion of this unit, students are expected to demonstrate proficiency in using models to describe phenomena, use mathematical and computational thinking as well as obtaining, evaluating and communicating information.

#### Engineering Design-Robotics

The second unit of Grade 5 Science uses the engineering design cycle to build students' capabilities as problem solvers. Using LEGO EV3 Robotics, students develop basic programming and building skills as they complete a checklist of basic tasks. Realworld applications of robotics and engineering design are studied in preparation for the student's own design challenge. As a culminating task, students work in collaborative teams to design, build and program their robot to successfully complete a challenge modeled on a real world scenario.

#### Earth's Place in the Universe

The third unit of Grade 5 Science explores Earth's position in the universe and the interactions that result from the patterns and universal laws we experience. Students hone their skills of data analysis and interpretation, constructing models to explain scientific principles, and evidence based arguments as they develop answers to questions such as: What causes shadows to change size?, Why does the moon's shape change?, and Why aren't hours of day and night always the same?.

### Grade 6 Science



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### Course Overview

Science in Grade 6 is an integrated course composed of four units of study. Each unit of study is designed using a three-dimensional approach in which disciplinary content is taught in context with both scientific and engineering practices and crosscutting concepts.

#### Waves and Their Applications

In Unit 1, students will develop models that describe the properties of both transverse and longitudinal waves. Students will then conduct a project based learning activity to study the application of sound waves to concepts such as frequency/pitch and amplitude/volume.

#### Earth Events

In the Second Unit of Grade 6 science, students will explore the history of planet earth and the geoscience processes that still continue to shape our planet. Students will construct models to demonstrate the plate tectonics and large-scale system interactions such as the effect of seismic waves on building structures. Furthermore, students will make interdisciplinary connections to demonstrate that the earth is a recycling system through the study of the rock cycle and its connection to plate tectonics.

#### Molecules to Systems

In the Third Unit of Grade 6, students begin by exploring how cells form the basic building blocks of all living organisms. The connection is then made to cellular specialization, which allows for the formation of interacting organs, organ systems, and finally an organism. Students will apply the skills of scale, proportion, and quantity in order to better understand the size and function of various cells.

#### Matter and Its Interactions

In the Fourth Unit of Grade 6 Science, students will start to explore the basic concepts of chemistry. Students will begin with discussions and investigations that will address questions such as What is matter?, What is matter made of?, and What are the different types of matter?. After establishing this foundation, students will learn how to describe matter using quantitative and qualitative observations related to the physical and chemical properties of a substance. This unit will conclude with exploring physical and chemical changes through the use of scientific investigations.



### Grade 7 Science



### Characteristics of Science:

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- Students develop their technical literacy as they read, write and present

These skills equip students to collect and process scientific information necessary to investigate and understand their world. All Concordia science courses align with Next Generation Science Standards (NGSS). Every NGSS standard has three dimensions: disciplinary core ideas, science and engineering practices, and crosscutting concepts. This integration of rigorous content and application reflects how science and engineering are practiced in the real world.

### **Resulting Dispositions**

Concordia Science Students are

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### Course Overview

#### Thinking Like a Scientist

Students explore the nature of scientific inquiry and develop an understanding of science as an exploratory enterprise. Students begin to investigate the scientific and engineering enterprise and gain an awareness of current shifts underway in both focus and method.

Students will study the nature of experimentation and its relationship to problem solving. Emphasis will be placed on experimental procedures and engineering design: (a) variables, (b) hypothesis, (c) data collection, and (d) communication of results. Students will explore what makes knowledge "scientific".

#### Reproduction in Living Things

In this unit students explore asexual and sexual reproduction with a focus on the biological processes. Students examine the similarities and differences in asexual and sexual reproduction in a range of living organisms.

Students investigate animal behaviors that increase the odds of reproduction and a variety of reproductive strategies used by plants. In addition, they identify the impact of animal behavior on plant reproduction. Students discover that genetic factors as well as local conditions affect the growth of an organism.

### Diversity of Life and Ecology

In this unit, students explore the relationships between biotic and abiotic factors in an ecosystem. This includes key cycles (nitrogen & carbon), energy transfer in food webs, and human impact on ecosystems. Students investigate ways to organize living organisms into groups based on structural and functional characteristics and explore the ways in which living organisms respond and adapt to their environment. Students research and analyze current scientific data from a range of fields to build an understanding of the causes and consequences of climate change. The concepts of system complexity and recycling of energy and matter are highlighted. Emphasis is placed upon cause and effect and change.



### Grade 8 Science



### Characteristics of Science:

- Students engage deeply in inquiry and creative problem solving
- Hands-on experimentation and data collection are integrated through the units
- Students use technology to learn and to share their learning
- Students explore the interdisciplinary connections embedded in real-world problems
- Students develop their technical literacy as they read, write and present

These skills equip students to collect and process scientific information necessary to investigate and understand their world. All Concordia science courses align with Next Generation Science Standards (NGSS). Every NGSS standard has three dimensions: disciplinary core ideas, science and engineering practices, and crosscutting concepts. This integration of rigorous content and application reflects how science and engineering are practiced in the real world.

### **Resulting Dispositions**

Concordia Science Students are

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- Inspired Innovators
- Effective Collaborators
- Curious Questioners
- Lifelong Learners



### Course Overview

#### Nature of Science

In this brief introductory unit of Grade 8 science students practice and refine scientific skills while planning investigations and designing engineering solutions. Proficiency in these areas early in the course equips students to successfully apply these foundational skills in other units.

#### Forces and Interactions

The second unit of Grade 8 science focuses on helping students understand ideas related to Newton's Three Laws. Students answer the question, "How can one describe physical interactions between objects and within systems of objects?"

Students test ideas about motion, gravity and forces through an investigation of rocketry. As they design, construct and test a load-carrying rocket, students apply Newton's Third Law of Motion to explain the motion of objects. The scientific practices of asking questions, designing solutions, and engaging in argument are emphasized in this unit of study.

#### Energy

The Energy unit helps students formulate an answer to the question, "How can energy be transferred from one object or system to another?"

Emphasis is placed on understanding important qualitative ideas about energy transfer and conservation of energy, that objects may have kinetic or potential energy dependent on their position, as well as key differences between energy and temperature. Culminating tasks allow students to hone their skills in scientific modeling and apply their understanding of energy to create roller coasters. and the Mars Thermos.

#### Matter and Its Interactions

The performance expectations in Matter and Its Interactions help students formulate an answer to the question, "How do atomic and molecular interactions explain the properties of matter that we see and feel?" by building understanding of what occurs at the atomic and molecular scale.

By the end of this unit, students will be able to describe simple atomic structure, use the patterns found in the periodic table to predict atom interactions, provide molecular-level accounts to explain that chemical reactions involve regrouping of atoms to form new substances, predict the effects of environmental factors on reaction rates and apply this understanding to write balanced chemical equations. Emphasis is placed on the scientific practices of planning and carrying out investigations, analyzing and interpreting data, and obtaining, evaluating and communicating information.



### Grade 5 Math



### Characteristics of Math:

- Students explore meaningful real-world problem solving to drive learning
- Teachers challenge students to think deeply about the problems they are solving, reaching beyond the solutions and algorithms
- Students use and connect multiple representations to communicate mathematical ideas
- Students share their mathematical ideas through discussion with one another, refining and critiquing each other's ideas
- > Teachers engage and support students in productive struggle as they grapple with mathematical ideas
- Teachers offer a balance of conceptual understanding and procedural fluency

### Course Overview

Students focus intensively on the three critical areas specified by the Common Core State Standards for Mathematics in Grade Five:

- Developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions)
- Extending division to 2-digit divisors, integrating decimal fractions into the place value system, developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations
- Developing understanding of volume

Unit 1 is focused on volume, and includes a review of multiplication facts and multi-digit multiplication strategies. In Unit 2, students use what they know about equivalent fractions to add and subtract fractions. Unit 3 extends students' understandings of place value and the properties of operations to help students develop powerful strategies for computing fluently with decimals. In Unit 4 students refine powerful multiplication and division strategies, including the array model and the standard algorithm for multiplication. In *Unit 5* students learn to multiply and divide fractions. *Unit 6* introduces new geometric concepts, including coordinate graphing and the use of hierarchies to classify two-dimensional shapes by their properties. In *Unit 7* students develop accurate and efficient strategies for dividing whole numbers, decimals, and fractions (unit fractions by whole numbers, and whole numbers by unit fractions.)





### Content Outline

#### Unit 1 Expressions, Equations & Volume

- Multiplication & Volume
- Factors, Multiples & the Associative Property
- Multiplication Strategies
- From Multiplication to Division

#### Unit 2 Adding & Subtracting Fractions

- Adding & Subtracting Fractions
- Fractions as Operators & Quotients
- Common Denominators
- LCMs & GCFs

#### Unit 3 Place Value & Decimals

- Whole Number & Decimal Place Value
- Adding & Subtracting Decimals
- Conversions
- Division & The Area Model

#### Unit 4 Multiplying & Dividing Whole Numbers & Decimals

- Multiplication & Division Strategies
- More Multiplication & Division Strategies
- From Array to Algorithm
- Multiplying to Divide

#### Unit 5 Multiplying & Dividing Fractions

- Multiplying Whole Numbers by Fractions
- Multiplying Fractions by Fractions
- More Fraction by Fraction Multiplication
- Dividing Fractions & Whole Numbers

#### Unit 6 Graphing, Geometry & Volume

- Graphing Ordered Pairs
- Classifying Polygons
- Volume
- Banners & Flags

#### Unit 7 Division & Decimals

- Division of Fractions & Whole Numbers
- Division Interpretations & Strategies
- Powers of Ten
- Decimal Multiplication & Division



### Grade 6 Math



### Characteristics of Math:

- Students explore meaningful real-world problem solving to drive learning
- Teachers challenge students to think deeply about the problems they are solving, reaching beyond the solutions and algorithms
- Students use and connect multiple representations to communicate mathematical ideas
- Students share their mathematical ideas through discussion with one another, refining and critiquing each other's ideas
- Teachers engage and support students in productive struggle as they grapple with mathematical ideas
- Teachers offer a balance of conceptual understanding and procedural fluency

### Course Overview

In Math 6 and 6A students focus intensively on the four critical areas specified by the Common Core State Standards for Mathematics in Grade Six:

- Connecting ratio and rate to whole number multiplication and division, and using concepts of ratio and rate to solve problems
- Completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers
- Writing, interpreting, and using expressions and equations
- Developing understanding of statistical thinking

### Math 6 and 6A

#### Unit 1 Prime Time

- Understand relationships among factors, multiples, divisors and products
- Understand why two expressions are equivalent

#### Unit 2 Comparing Bits and Pieces

- Understand fractions and decimals as numbers that can be located on the number line, compared, counted, partitioned, and decomposed
- Understand ratios as comparisons of two numbers
- Understand equivalence of fractions and rations, and use equivalence to solve problems

#### Unit 3 Let's Be Rational

 Understand that estimation is a tool used in a variety of situations including checking answers and making decisions, and develop strategies for estimating results of arithmetic operations

- Revisit and continue to develop meanings for the four arithmetic operations and skill at using algorithms for each
- Use variables to represent unknown values and equations to represent relationships

#### Unit 4 Decimal Ops

- Understand that estimation can be used as a tool in a variety of situations, including as a way to check answers and make decisions
- Use variables to represent unknown values and number sentences to represent relationships between values
- Develop understanding of percents through various contexts, such as sales tax, tips, discounts, and percent increases

#### Unit 5 Variables and Patterns

- Develop understanding of variables and how they are related
- Develop understanding of expressions and equations

### Grade 7 Math



### Characteristics of Math:

- Students explore meaningful real-world problem solving to drive learning
- Teachers challenge students to think deeply about the problems they are solving, reaching beyond the solutions and algorithms
- Students use and connect multiple representations to communicate mathematical ideas
- Students share their mathematical ideas through discussion with one another, refining and critiquing each other's ideas
- Teachers engage and support students in productive struggle as they grapple with mathematical ideas
- Teachers offer a balance of conceptual understanding and procedural fluency

### Course Overview

In Math 7 and 7A students focus intensively on the four critical areas specified by the Common Core State Standards for Mathematics in Grade Seven:

- Developing understanding of and applying proportional relationships
- Developing understanding of operations with rational numbers and working with expressions and linear equations
- Solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume
- Drawing inferences about populations based on samples



### Content Outline

#### Math 7

#### Unit 1 Accentuate the Negative

- Develop an understanding that rational numbers consist of positive numbers, negative numbers, and zero
- Develop understanding of operations with rational numbers and their properties

#### Unit 2 Stretching and Shrinking

- Understand what it means for figures to be similar
- Develop strategies for suing similar figures to solve problems

#### Unit 3 Shapes and Designs

- Understand the properties of polygons that affect their shape
- Understand special relationships among angles
- Understand the properties needed to construct polygons

#### Unit 4 Comparing and Scaling

- Understand ratios, rates, and percents
- Understand proportionality in tables, graphs, and equations
- Develop and use strategies for solving problems that require proportional reasoning

#### Unit 5 Moving Straight Ahead

- Recognize problem situations in which two variables have a linear relationship
- Understand that the equality sign indicates that two expressions are equivalent



### Math 7A

#### Unit 1 Accentuate the Negative

- Develop an understanding that rational numbers consist of positive numbers, negative numbers, and zero
- Develop understanding of operations with rational numbers and their properties

#### Unit 2 Stretching and Shrinking

- Understand what it means for figures to be similar
- Develop strategies for suing similar figures to solve problems

#### Unit 3 Shapes and Designs

- Understand the properties of polygons that affect their shape
- Understand special relationships among angles
- Understand the properties needed to construct polygons

#### Unit 4 Comparing and Scaling

- Understand ratios, rates, and percents
- Understand proportionality in tables, graphs, and equations
- Develop and use strategies for solving problems that require proportional reasoning

#### Unit 5 Moving Straight Ahead

- Recognize problem situations in which two variables have a linear relationship
- Understand that the equality sign indicates that two expressions are equivalent

#### Unit 6 Samples and Populations

- Deepen the understanding of the process of statistical investigation and apply this understanding to samples
- Understand that data values in a sample vary and that summary statistics of samples, even same-sized samples, taken from the same population also vary.
- Understand that simulations can model realworld situations
- Understand that summary statistics of a representative sample can be used to gain information about a population

### Grade 8 Math



### Characteristics of Math:

- Students explore meaningful real-world problem solving to drive learning
- Teachers challenge students to think deeply about the problems they are solving, reaching beyond the solutions and algorithms
- Students use and connect multiple representations to communicate mathematical ideas
- Students share their mathematical ideas through discussion with one another, refining and critiquing each other's ideas
- Teachers engage and support students in productive struggle as they grapple with mathematical ideas
- Teachers offer a balance of conceptual understanding and procedural fluency

### Course Overview

In Math 8 and 8A students focus intensively on critical areas specified by the Common Core State Standards for Mathematics in Grade Eight:

- Formulating and reasoning about expressions and equations, including modeling an association in bivariate data with linear equation, and solving linear equations and systems of linear equations
- Grasping the concept of a function and using functions to describe quantitative relationships
- Drawing inferences about populations based on samples

- Deepening and extending understanding of linear and exponential relationships.
- Contrasting linear and exponential relationships with each other and engaging in methods for analyzing, solving, and using quadratic functions
- Extending the laws of exponents to square and cube roots
- Applying linear models to data that exhibit a linear trend.



### Content Outline

### Math 8 and 8A

### Unit 1 Thinking with Mathematical Models

- Recognize and model patterns in bivariate data
- Measure variation in data and strength of association in bivariate data

#### Unit 2 Growing, Growing, Growing

- Explore problem situations in which two or more variables have an exponential relationship to each other
- Develop understanding of equivalent exponential expressions

#### Unit 3 Say it with Symbols

- Develop understanding of equivalent expressions and equations
- Develop an understanding of specific functions such as linear, exponential and quadratic functions

#### Unit 4 It's in the System

- Develop understanding of linear equations and systems of linear equations
- Develop understanding of graphing and symbolic methods for solving linear inequalities with one and two variables

#### Unit 5 Frogs, Fleas and Painted Cubes

- Explore problem situations in which two variables are in a quadratic relationship
- Develop an understanding of equivalent quadratic expressions

### Math 8A

#### Unit 6 Function Junction

- Understand Functions
- Understand equivalence of algebraic expressions and functions

### Grade 5 Reading & Writing Workshop



#### Characteristics of Reading & Writing Workshop:

- ▶ Teachers demonstrate skills and strategies in a short "minilesson"
- Students read "just right" books and write multiple pieces throughout each unit
- > Students spend extended time working independently in class on a repertoire of skills and strategies
- Teachers differentiate and individualize instruction through 1-1 conferences and small group work
- Students use checklists and rubrics to self-assess and set goals
- Speaking and listening skills are integrated throughout the units

#### Course Overview - Semester One

#### **Reading Units**

#### Interpretation Book Clubs

This year, the fiction students read will be more complex. Novels will be rich with nuanced characters and multiple subplots, which all connect to multiple themes. These books offer endless possibilities for insights, interpretations, and rich discussion. Students will begin by developing more nuanced interpretations in the company of others during book clubs. One of the primary goals is for students to develop the skill of growing complex character theories and themes with strong supporting text evidence. Students will also write responses to reflect and apply lessons in their own lives. Lastly, students will read analytically, noticing the way authors develop the same theme differently.

#### Tackling Complexity in Non Fiction

The informational texts students read are also becoming increasingly complex, and students will be taught to tackle those difficulties. Students will need to recognize multiple main ideas, some of which will be hidden between the lines. They will also carry unanswered questions as they read, or do significant work to determine how two seemingly unrelated parts fit together. Finally, students will continue analyzing differences in author's perspectives by studying craft or structure decisions.

#### Writing

#### Personal Narrative

In this unit, students will crystallize their images of strong narratives by developing their stories and characters and elaborating with greater precision, detail, and description. This means it is especially important for students to be clear on why they are telling a story so they make craft decisions with the purpose of highlighting their central ideas and themes.

#### The Lens of History - Research Reports

As this unit is designed to support students' writing of informational texts within a content area study, it will be integrated with our Social Studies unit on Colonization & Revolution. Students will write quick drafts of research reports and revise them with various lenses. They will learn to organize information into subsections, elaborate, and make effective choices about structure, formatting, and transitions. Finally, students will write a research report on a focused topic, considering the theme and perspective they want to convey in their informational writing.

#### **Reading Units**

#### Argument & Advocacy

In today's world, we need people who think for themselves, who read to be informed, who try to understand an issue before having an opinion, and who do not just accept what they read, but who think deeply enough to question what they read. Above all, the world needs people who can work for change when it is needed. Therefore, this unit aims to support students in becoming more active and critical citizens. First, students will learn to evaluate an argument by identifying the claim, the reasons supporting the claim, and the evidence supporting the reasons. Then, students will delve into the arguments with greater depth, studying author's craft decisions, perspectives, and issues of power. Finally, students will dive into a new issue by switching topics.

#### Writing

#### Poetry

Poems are all around us - in songs, greeting cards, commercials, and other unexpected places. More than a set of rhyming lines, they require children to carefully consider language and its rhythms, noticing how a few simple words can evoke strong images and feeling. In this unit, students will write poems "from the inside out" by focusing on the message and emotion from the start before moving to use words to create images for the reader. Finally, they will add music to the poems through the use of poetic devices such as alliteration, rhythm and rhyme.

#### Argument Essay (& Debate)

The freedom to argue is one of our most important freedoms. From the beginning, students will learn to suspend judgement by researching both sides of an issue, culling evidence, and analyzing and interpreting their data before articulating a position that is convincing to others. They will seek to understand authors' perspectives, evaluate data, find flaws or conflicts in their information, and entertain counterclaims. Students will then use all their argument skills to make an effective case in another essay to contribute to a community conversation.

#### Historical Fiction Book Clubs

Historical fiction lifts us out of ordinary lives to imagine lives of great adventure and heroism. These inherently complicated stories ask students to understand the emotional atmosphere of a setting, multiple plot lines, and that characters aren't always what they seem. Students will also build on multiple theme work across stories and delve deeper into literary analysis of symbols, metaphors, archetypes, and how stereotypes or gender norms are reinforced in their stories. Through book club discussions, students will again lift their level of comprehension by sharing ideas, building on ideas, and providing text evidence to support their thinking.

#### **Historical Fiction**

Historical fiction writing provides students an opportunity to revisit the narrative genre with greater control and finesse. Additionally, at this time of year and with the support of the parallel reading unit, students will be able to write with greater sophistication. They will create compelling plot lines, settings that reflect the emotional atmosphere of the time period, and build tension through the characters' external and internal conflicts.





### Grade 6 Humanities



#### Characteristics of Reading & Writing Workshop:

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#### Course Overview

#### Reading

#### A Deep Study of Character

In this unit, students will begin to understand that characters are complicated due to conflicting pressures that motivate them to behave in different ways. They will learn to examine subtle, hidden sides of characters that are revealed as the story progresses. Students will also analyze the significance of setting and its effect on characters, noticing the precise language authors use to evoke an atmosphere. As they study stories as a whole, students will grow ideas about different themes that are embedded in the text.

### Writing Realistic Fiction

We begin the year in writing by allowing our students' imaginations to flow in generating realistic narratives. This unit is similar to the personal narrative and pairs well with our first reading unit. In reading about complex characters and studying relationships, students will be inspired to create main characters who face challenges or conflicts that lead them to new insights and realizations that bring about internal change.

#### **Social Studies**

#### <u>Unity</u>

In this unit, we will explore how people have formed themselves into groups for a variety of reasons by studying the ancient civilizations. Students will seek to understand the ways in which humans have chosen to come together and coexist. They will study push and pull factors in human migration, how geographic factors play a role in decision making, gender roles, and the different circumstances under which alliances are formed.



#### Reading

#### Writing

#### Tapping the Power of Non-Fiction

Equipping our students to be powerful non-fiction readers fosters informed citizenship, a passion for knowledge, and the lifelong joy of reading to learn. Our world today is full of information that is accessible through books, articles, websites, videos, photos, and infographics, to name a few. This unit focuses on discerning central ideas, creating concise summaries, synthesizing within and across texts, building vocabulary, growing ideas, and reading critically to question the author's point of view. Through book club conversations, students will also learn to focus on key ideas and investigating them more deeply.

#### <u>Journalism</u>

Responsible, ethical journalism is more crucial today than it has ever been before. This unit begins with students learning to notice their surroundings, being alert to seemingly insignificant events. By writing focused, concise reports, they will learn to structure their pieces, using the tone and language of journalists. Students will then move to writing feature articles on a topic of interest. They will research and gather information in different ways – interviews, surveys, observations, and research. The unit culminates with students contributing their individual articles to create a class publication.

#### **Social Studies**

#### **Identity**

For as long as people have come together, they have sought to define what they have in common. In this unit, students will seek to understand factors that keeps groups together, what a culture finds important, and how a culture passes on their heritage. They will also study cultural interactions and its benefits to the culture.





#### Reading

#### Research Reading

In tandem with our Argument Essay unit, students will be conducting research around a topic of interest. Armed with the knowledge that authors reflect different positions on an issue, students will analyze multiple articles and videos that represent a range of perspectives on an issue before taking their own position on the issue.

#### Writing

#### Research Based Argument Essay Writing

Debating is a skill that comes naturally to our students. It is also one that we aim to refine throughout Middle School, so that they can argue in a formal, logical, and sophisticated way. In this unit, students will learn to argue their position by providing clear reasons and evidence based on credible research and growing their own ideas on an issue.

#### **Social Studies**

#### Legacy

#### "What's past is prologue." - William Shakespeare

We study history because it influences and sets the context for the present. In this unit, students will research different ideas, inventions, individuals, and institutions that changed society, look at how they are remembered by future generations, and recognize the impact on their own lives.

### Grade 7 Humanities



#### Characteristics of Humanities:

- ▶ Teachers demonstrate skills and strategies during a short "minilesson" in Reading & Writing Workshop
- Students read "just right" books to develop deep comprehension and critical analysis
- Students spend extended time working independently in class on a repertoire of skills and strategies
- Teachers differentiate and individualize instruction through 1-1 conferences and small groups
- Students use checklists and rubrics to self-assess and set goals
- Speaking and listening skills are integrated throughout the units

#### Course Overview

#### **Social Studies**

The challenges we face in the world are multi-faceted and so demand that we use the power of history and the social science disciplines individually and in combination to address them. The questions that students will examine this year do not lend themselves to simplistic conclusions. The conclusions they reach will be better informed when based on thoughtful and multidisciplinary approaches.

In Grade 7, Social Studies is taught through inquiry. As a discipline, social studies is many things, but at its heart is the drive to understand how the social world operates. In short, why do people do the things they do? That seemingly simple question and many others open a world of opportunity for students and their teachers to explore different ways people have lived their lives both past and present. The Inquiry Design Model (IDM) approach frames inquiries around a compelling question. Compelling questions address key issues and topics found in and across the academic disciplines and reflect the ideas and experiences that students bring to class. Compelling questions require students to take a rigorous look at the content of social studies; they also represent conditions that are relevant to students' lives. No social issue, however, can be addressed through a single disciplinary lens because no social problem is only economic or political, historical or geographic. Therefore, students will use multiple lenses to examine and analyze history in topics such as global citizenship and justice.





#### Reading

#### A Deep Study of Character

As 7th graders continue to grow in their cognitive development, they are ready to discern complicated motivations and conflicting pressures that exist in characters and to examine sides of characters that are often ignored. Students will also analyze the significance of setting and its effect on characters, noticing the precise language authors use to evoke an atmosphere. As they question texts deeply, students will develop thematic statements forwarded in the text through the authors' use of literary crafts.

#### Research Reading

In reading, students will research and analyze a variety of media and informational texts to identify key ideas and topics within an issue. Students will learn to summarize and organize resources, evaluate the quality of evidence, and identify the author's role in creating an opinion.

#### **Dystopian Book Clubs**

The world of dystopia is inherently complicated and fascinating to students. This unit begins with a study of how things have gone awry in dystopian worlds, character archetypes, as well as systemic and personal obstacles. Students will also learn to navigate the challenges of series reading, keeping track of multiple plots and elaborate changes within a large cast of characters, connecting scenes between books, and noticing shifts in symbolism. Finally, students will connect their dystopian worlds to their own communities and how fictional ideas reflect wider social concerns.

#### Writing

#### Writing About Reading

From the beginning of the year, students have been jotting ideas while reading and writing short responses. This unit allows students to use writing to deepen literary analysis, noticing an author's choice in craft techniques to shape character and theme development. At the end of the unit, students will deliver their thinking by publishing a companion book for one of their dystopian novels.

#### Research Based Argument Essay

In writing, students will establish a position on an issue, compose a focused and nuanced argument that includes their personal analysis of evidence, and present that argument to a global audience.

#### <u>Memoir</u>

"We do not learn from experience...we learn from reflecting on experience." - John Dewey

Through memoir writing, students will take us on a journey through a significant experience in their lives where they faced an internal struggle and reflect on the impact of that experience on their lives. By doing so, students will also begin to identify recurring themes in their own lives.

### Grade 8 Humanities



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#### Course Overview

The Power of One									
Reading	Social Studies	Writing							
Close Reading	<u>Entrepreneurship</u>	Personal Narrative							
The art of close reading teaches students to critically analyze a text by focusing on important details and patterns, structures, and craft techniques that lead to a deeper understanding of the text. In this unit, students will learn to zoom in on single lines and detect subtle clues that reveal key insights to characters and theme.	In this unit, students will learn the basics of entrepreneurship by setting up their own business. Students will create their own resumes, engage in a hiring process, and market a profitable product. Collaboration is essential in the workplace, so students will also learn how teamwork leads to a successful business.	The idea of "The Power of One" will be embedded in the students' focused narratives this year, emphasizing the notion that a single moment, individual, realization, or change can make a powerful difference in our own lives and the lives of others.							

#### **Social Studies**

#### Feast & Famine

The periods known as the Roaring 20s and the Great Depression were times of great prosperity and poverty in the United States. This unit helps students understand that there are identifiable causes and effects in history and how these patterns of change can teach us about order and disorder. Additionally, through the Great Depression simulation, students will recognize the difference between hardship and inconvenience, apply the discipline required to maintain one's integrity, and empathize more deeply with those who are in true hardship.



#### JTerm

During the month of January, student will discover and share their passion by selecting topics of interest to research. In Humanities class, students will collect research and learn purposeful note-taking skills while in Science and Math, they will learn how to interpret data and discern how statistics can be manipulated to convey a particular message. At the end of the unit, students will learn to use digital technology to effectively present their ideas and learning.



#### **Social Studies**

#### World War II

In this unit, students will study different events, issues, and perspectives during World War II. They will identify political, geographic, and economic factors that contribute to the causes and effects of war. By harnessing the craft of writing, students will synthesize their learning by producing a historical documentary.

#### **Civil Rights**

This unit investigates the American Civil Rights Movement of the 1950s and 60s and contemporary issues in Human Rights. While emphasis is placed on the African-American experience of race relations in the United States during the 20th Century, the topic of Human Rights is addressed against a global and current events backdrop. Students will stand in the shoes of an individual in the midst of such issues by writing a speech that synthesizes and articulates their learning.

#### **Reading & Writing**

#### Research Based Argument Essay

In Grade 8, students will construct their argument on a topic by presenting their position, supporting it with reasons and evidence, elaborating on the evidence, and discussing weaknesses in the counterargument. Students will also differentiate between credible and unreliable resources as they collect multiple pieces of media or texts for their research.

### Middle School PE & Health



### Physical Education (Grades 5-8)

Middle School PE classes are designed to improve the physical and mental components for all students. Through exercise and game play, students will develop a solid foundation of knowledge and skills, using teamwork, collaboration, and integrity in the spirit of fair play. These activities will help students to prepare for and succeed in the real world currently and beyond. Through exercise and sport we will provide inclusive opportunities for healthy social engagement and relationship building. The overall aim of PE classes is to provide Middle School students with opportunities to learn and grow through exercise and game play.

<u>Units Include</u>: recess games, volleyball, T-Ball/ softball, climbing, soccer, basketball, swimming, dance, jump rope, badminton, floor hockey, fitness and yoga, track and field, cooperative games and recreational games.

### Health (Grades 5 and 7)

Health classes examine the physical, emotional, cognitive and social aspects of what it means to be healthy. Students will grow to understand that: health has many components to it influenced by internal and external factors, their bodies and minds go through great changes during adolescence, their decisions affect their overall health and that there are costs and benefits to all decisions. Letters outlining the specific content covered during puberty units are sent out to parents before the unit begins.

<u>Grade 5 Topics Include:</u> introduction to health and wellness, nutrition, mental health, fitness and exercise, relationships and puberty

<u>Grade 7 Topics Include:</u> health and wellness, mental health, vaping and cigarette use/abuse, relationships and puberty.

### Contact Information

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### Middle School Fine Arts



### Grade 5 and Grade 6 Art

Art class in grades 5 and 6 are an introduction to and exploration of various artistic media and techniques. Typical projects can include observational drawing, painting, printmaking, sculpting, and ceramics/sculpture.

Mr. Lyon will be teaching the grade 5 art classes and Mr. Mathyk will be teaching the grade 6 art classes. The curriculum is designed to focus mainly on the creation of art to get the students excited about being artists as well as showing them the skills involved in art through actual practice. We will also look at the cultural connection and importance of art.

Informal art exhibits will be placed around campus at various times throughout the year. where student work is displayed. Afterwards, students are encouraged to take their artwork home with them.

### Grade 7 and Grade 8 Art

Older students choose one of the following art electives for a term.

<u>Grade 7 and 8 Digital</u> - This class uses various digital art software programs for a variety of projects incorporating the elements of art and principles of design from photo manipulation to creating vector graphic art.

<u>Grade 7 and 8 Traditional</u> - This class uses more traditional art media and some unique materials to create artistic displays or functional objects.

<u>Ceramics</u> - This class uses clay to create a variety of hand-built art pieces or functional objects.

<u>Cinematography</u> – This class uses phones/cameras and editing software on laptops to plan and create a variety of different styles of videos.

### **Contact Information**

David Lyon: david.lyon@concordiashanghai.org Marc Mathyk: marc.mathyk@concordiashanghai.org



### Middle School Music



### Grade 5 and 6 Music

All middle school students get to be part of a music ensemble! Students can choose band, choir or strings. If they choose band or strings they will need to work with their music teacher to select their instrument. Instrument options are as follows:

#### Band:

Woodwinds: Flute, Clarinet, Oboe, Bassoon, Saxophone Brass: Trumpet, French Horn, Trombone, Baritone-Euphonium, Tuba

Strings: Violin, Viola, Cello, String Bass

#### COURSE OVERVIEW:

Students in grade 5-6 band, choir and strings will work on beginning ensemble skills to include sight reading, rhythm reading, scales and proper performance technique. Instrumentalists will work from a methods book. All musicians will prepare carefully selected, ability based music for our regular performances.

#### **PERFORMANCES:**

All middle school students will perform on 3-4 concerts per school year.

#### GRADE 5-6 MUSIC ENSEMBLES are as follows:

<u>Bands:</u> Cadet Band (Beginning) Phoenix Band (Intermediate)

<u>Choirs:</u> Grade 5 Choir Grade 6 Choir

<u>Strings:</u> Andante Strings (Beginning) Intermezzo Strings (Intermediate)

#### MUSIC DIRECTORS:

Bands: Mr. Mike Shirk

Choirs: Mr. Sam Gaines with Ms. Beverly Kho, Accompanist

Strings: Ms. Sara Preus with Dr. Jason Wang, Cello Specialist

### Grade 7 and 8 Music

Students in grade 7-8 band, choir and strings will work on intermediate to advanced ensemble skills to include sight reading, rhythm reading, scales and proper performance technique. Instrumentalists will work from a methods book. All musicians will prepare carefully selected, ability based music for our regular performances.

#### PERFORMANCES:

All middle school students will perform on 3-4 concerts per school year.

#### GRADE 7-8 MUSIC ENSEMBLES are as follows:

<u>Bands:</u> Phoenix Band (Intermediate) Symphonic Winds (Advanced)

<u>Choirs:</u> 7-8 Boys Choir 7-8 Girls Choir 7-8 Treble Choir (Auditioned, Advanced)

<u>Strings:</u> Intermezzo Strings (Intermediate) Sinfonia (Advanced)

#### MUSIC DIRECTORS:

Bands: Mr. Mike Shirk

Choirs: Mr. Sam Gaines, Mrs. Meg Ideker with Ms. Yifan Shi and Ms. Beverly Kho, Accompanists

Strings: Ms. Sara Preus



### Middle School Music Co-Curriculars



### Grade 5-6 Ambassador Singers

Non-auditioned, open to all students in grades 5-6. Meets on Tuesday mornings from 7-7:45am in the Choir Room Performs on 3 concerts per school year Mr. Gaines, Director

### Grade 7-8 Alleluia Singers

Non-auditioned, open to all students in grades 7-8. Meets on Thursday mornings from 7-7:45am in the Choir Room Performs on 3 concerts per school year Mr. Gaines, Director

### Grade 6-8 Middle School Jazz Band

Non-auditioned, open to all students with at least one year of playing experience in grades 6-8. Meets on Wednesday and Friday mornings from 7-7:45am in the Band Room Mr. Shirk, Director



### Middle School Mandarin Program



Concordia offers a rigorous and varied Mandarin curriculum from Preschool to Grade 12. Multiple levels of Mandarin courses are offered in the middle school to meet students' needs and language development.

Concordia values students' Mandarin learning. We prepare students to be effective communicators and active global citizens. Students learn Mandarin, learn about Mandarin, and learn through Mandarin.

The Mandarin program at Concordia offers two pathways for students:

Chinese Language & Literature (CLL)

Chinese Language & Culture (CLC)

The Chinese Language & Literature (CLL) pathway is designed for students with substantial exposure to Mandarin and/or for those who use Mandarin as a primary language at home. The main focus of this pathway is to enhance learners' literacy development, and appreciate its functionality and aesthetics. This pathway equips students to use Mandarin as a vehicle for expressing thought, creativity, and analysis, and for engaging in both social and academic interaction. Students are expected to engage with an increasing range and sophistication of literary and informational texts and works of literature that extend across genres, cultures and historical periods. The Common Core State Standards and the Chinese National Curriculum are used as reference points for the design of CLL units of study. The Chinese Language & Culture (CLC) pathway is designed for students with varying degrees of exposure to Mandarin. This pathway helps students acquire linguistic skills and cultural awareness by interweaving language and culture, and by guiding them through a progression of activities that include using authentic language through structured practice to produce creative, personalized expression and to analyze, evaluate, conclude, and predict through exploration of a variety of contexts. As the year progresses, students strive for greater proficiency in the three modes of communication: interpretive listening and reading; interpersonal speaking and writing; and presentational speaking and writing. The ACTFL World-Readiness Standards for Learning Languages and International Curriculum for Chinese Language Education are used as reference points for the design of CLC units of study.

At Concordia we recognize that language learning is an individualized, and somewhat personalized, endeavor; thus, we understand that students learn languages at different paces. For this reason, it is not necessarily an expectation that students complete one Mandarin level (course) within one school year. In fact, some of our Mandarin courses are designed to span multiple school years in order to best meet the needs of our Mandarin learners.

Glossary of Terms		MS Mandarin Course Offering 2021-2022						
Acronym	ACTFL Proficiency Term	Chinese Language & Literature (CLL)		Cł	Chinese Language and Culture (CLC)			
NH	Novice High			CLC-IH	CLC-IM	CLC-IL	CLC-NH	
IL	Intermediate Low	G5 CLL-Adv	G5 CLL-Int.	N/A	G5 IM/IH	G5 IL	G5 NH	
IM	Intermediate Mid	G6 CLL-Adv	G6 CLL-Int.	G6 IM/IH	G6 IL/IM N/A		N/A	
IH	Intermediate High	G7 CU Adv	G7 CLL Int	G7 ILI	G7 IM	G7 II	NI/A	
Please note that course offerings		G7 CLL-Adv. G8 CLL-Adv.	G7 CLL-Int.	G8 IM/IH	G7 IM G8 I		N/A	

are based on student needs. Some courses may not be offered every year. Additionally, some adjacent courses may be combined in order to ensure an appropriate class size to optimize student proficiency with language learning.



Inverted Pyramid Representing ACTFL Rating Scale with Major Ranges and Sublevels including Distinguished

### Distinguished Superior Advanced High Advanced Low Intermediate High Intermediate Low Novice High Novice Mid

### **Contact Information**

Jenny Tang, Director of Mandarin jennyyuhong.tang@concordiashanghai.org

### Grade 7 Maker Design



#### Course Overview

Maker Design utilizes a design thinking framework and the tools of the MakerSpace to equip students in their journey of development into skilled, independent, empathetic and action-oriented Makers. Guided by their own interests and initiative, Maker Design students build a personalized set of transferable skills. This 11-week projectbased course supports growth for all students as they become people with Purpose, Initiative and Agility.



#### MakerSpace Safety and Orientation

- Maker Mindsets
- Introduction to the Tools and Techniques of the MakerSpace
- MakerSpace Safety

#### Maker Elective Exploration

- Small-scale, guided projects to explore and build skills
  - ▷ Electronics
  - ▷ Cardboard Construction
  - $\triangleright$  Woodworking

#### Design Thinking Collaboration

- Introduction to Design Thinking
- Collaborative Design Thinking Challenges

#### Independent Exploration

 Independent project work combining aspects of design thinking and personal interest



<u>Contact Information</u> Andre De Koker: <u>andre.dekoker@concordiashanghai.org</u>

### Maker Skills and Mindsets

The learning, projects and collaboration in this course are designed to support growth in the following:

#### **INITIATIVE**

Encounters challenges with a measure of curiosity, planning and tenacity, leading to growth and progress.

#### <u>AGILITY</u>

Embraces ambiguity and is resourceful and flexible, thinking creatively to solve problems, and navigate challenges.

#### PERSEVERANCE

Engages community with a sense of purpose and passion, becoming an authentic agent of change on a small and large scale.

### KNOWLEDGE AND TECHNICAL

Exhibits the mindsets, knowledge and technical skills of a maker.



### Grade 7 & 8 Coding and Robotics



Concordia's Phoenix Coding and Robotics Lab is our formalized initiative to introduce Computer Science concepts to middle school students. Mapped to CSTA standards, the program takes a wide lens on computer science by covering topics such as problem solving, programming, physical computing, user-centered design, and data, while inspiring students as they build their own websites, apps, animations, games, and physical computing systems.

Our *Web Development* elective teaches students how to create and share content on their own web pages. Students learn how to structure and style their pages using HTML and CSS, while adding interactivity using JavaScript. Students also practice valuable programming skills such as debugging, using resources, and teamwork. The *Physical Computing* elective explores the role of hardware platforms in computing and how different sensors can provide more effective input and output than the traditional keyboard, mouse, and monitor. Students develop programs that utilize the same hardware inputs and outputs that you see in smart devices, and discover how a simple rough prototype can lead to a finished product.



#### Contact Information

Gaylon Alfano: gaylon.alfano@concordiashanghai.org

### Middle School Student Support



### How Does Concordia Support All Learners?

Concordia provides comprehensive student support programs that address the academic, personal, social, spiritual, and developmental needs of our students.

#### LS: Learning Support

- Daily Core Support classes\* ►
- Regular in-class support by a LS coach

#### ELD: English Language Development

- Daily ELD classes\*
- Regular in-class support by a ELD coach

#### Other Supports

- Care & Concern Meetings
- Intentional Placement to Maximize support
- **On-campus Educational** Psychologist Support

#### \*Students in LS or ELD do not take a World Language

### **Counseling Support**



Ms. Cristin Childress Middle School Counselor Grades 5 & 6



Social Emotional Learning Lessons Small Groups

School Counseling Services

- Lunch Groups
- Individual Support for students
- Transitions
- Referrals for Resources
- Book Club for parents
- Parent Coffee topics

Ms. Jessie Gochar Middle School Counselor Grades 7 & 8 cristin.childress@concordiashanghai.org jessie.gochar@concordiashanghai.org

#### Contact:

ms.office@concordiashanghai.org or call at 58990380 #4000

### Middle School Spanish



### What will you be able to do?

#### <u>GRADE 6</u>

what will you be able to do?

When you read or listen, you will understand the *MAIN IDEA* from signs, reviews, social media, profiles, schedule & more.

When you talk or write, you will be able to give **BASIC INFORMATION** about yourself and others.

#### GRADE 7

#### what will you be able to do?

When you read or listen, you will understand the MAIN IDEA & SOME DETAILS from signs, reviews, social media, profiles, schedule & more.

When you talk or write, you will be able to give **BASIC INFORMATION** about yourself and others. You will able to **ASK FOR** some everyday things you want.

You will able to GIVE YOUR OPINION about familiar topics.

#### GRADE 8

#### what will you be able to do?

When you read or listen, you will understand the *MAIN IDEA & SOME DETAILS* from signs, reviews, social media, profiles, schedule & more.

When you talk or write, you will be able to give *INFORMATION* places, people, vents & more. You will able to *COMPARE* people, products and practices from different cultures.

You will able to GIVE YOUR OPINION and explain why.

You will be able to have a SIMPLE CONVERSATION about familiar topics.



### Contact Information

Maria Teixeira: maria.teixeira@concordiashanghai.org

### Middle School Reflective Spiritual Beings (RSB)



Reflective Spiritual Beings, RSB, is one of Concordia's five core student learning outcomes and is a reflection of Concordia's focus on holistic education based in positive relationships that encourage growth in students. The specific purpose of RSB is to give a brief introduction of topics relating to personal development and spiritual growth through discourse and critical thinking activities. One of the primary goals of RSB is for students to begin thinking about who they are and how their beliefs and vision for their life determine who they are becoming. One of the central ways that students consider personal growth in RSB is through learning about virtues and reflecting on how they might live a virtuous life. All RSB students use a reflection journal to think about the various topics being discussed in class. Classes run on collaboration, discussion and thinking about how we view ourselves and others.

RSB class is supported by monthly virtue themes that are highlighted in weekly assemblies for all students. In addition RSB serves as an introduction to service to the world in need and the positive role students can play in that service.

### Grade 5

Fifth grade RSB uses text, videos, and projects to explore the topics of Identity, Belief/Faith, Empathy and Gratitude. Students spend time each session engaging in mindfulness practices to set positive intentions for the day.

#### Grade 6

Sixth grade RSB explores the virtures of Forgiveness, Thankfulness, Honesty, and Kindness" with a service emphasis on Care, where students can learn to see needs that are right in front of them.

### Grade 7

Virtues: compassion, peace, understanding, patience.

Service Emphasis: ACTION – Learning how to see a need and how to take action to help make change or bring awareness.

### Grade 8

Virtues: gratitude, wisdom, humility, and gentleness.

Service Emphasis: FOCUS - Through a combination of Care and Action, these students consider how to best use their talents and skills to serve the world around them every day.



## Contact Information



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