Sky Program Guide

2018-2019 School Year

Established 1972

Learn Deeply

Think Creatively

Act Compassionately

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Welcome to the Sky!

At Wingra School, "Sky" is the term used to describe the two classrooms (Rooms 200 and 202) comprised of eleven, twelve, thirteen and fourteen year-olds. Students at Wingra begin in the Nest, and then travel to the Pond, the Lake, and then upstairs to the Sky. Wingra is the Ho-Chunk word for "duck," so we use these names for our classroom levels to signify the progression of our children through their Wingra experience.

Students from the two Sky classrooms are together much of the time. The Sky Teaching Team works with all the students of the Sky, striving to form individual connections and relationships with every Sky student and family.

All Sky teachers contribute their expertise in developing appropriate curriculum across academic disciplines and often in response to current events, trends and student interests and needs.

The Sky classrooms provide a nurturing and supportive environment for students to be creative and learn from their mistakes in order to become confident positive contributing members of our learning community.

Multiage classrooms provide opportunities for natural leadership growth, a greater sense of self-confidence, and deeper friendships and relationships with peers and teachers. Students, families and teachers benefit greatly from the increased knowledge and insights gained through a longer shared experience with each other.

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Developmentally-Appropriate Child-Centered Practice

Students are children and it is important to allow ample time for laughter, play, the arts, quiet time, and snacks. Our practice is grounded in an understanding of how children grow, develop, and learn. We include active and interactive learning experiences, varied instructional strategies, a balance between teacher-directed and child-initiated activities, integrated curriculum, and learning centers.

Hands-On, Interactive Experiences

There is a strong emphasis in our curriculum on problem solving, establishing connections, and communication. A range of hands-on projects, experiential activities enhance instruction. The program often includes literature-based reading, process writing, manipulative-based, constructive mathematics, relevant social studies, and inquiry based science.

Integrated Thematic Curriculum

Teachers create integrated curriculum based on thematic units of study. Content is introduced and extended through diverse, open-ended learning experiences designed to challenge students at different levels. As a group of learners becomes immersed in this shared inquiry, there are opportunities for individuals to pursue particular areas of interest.

Meaningful, Self-Directed Learning

Children are taught to exercise their voice in their own learning process. Teachers help students understand how they learn and their own areas of strengths, challenge, and opportunity. Students are taught to make choices, set goals, keep track of their progress, and reflect on their growth and learning.

Learning as a Process

Children learn in a continuum; they move from easier to more difficult concepts and from simple to more complex strategies at their own pace. Learning is not a race timed by age or a competition or defined by a finite skill set.

Multi-Age Classrooms

We see tremendous value in a range of learners working together. Teachers create curriculum based on their knowledge of child development and on the actual students in their classrooms. The stronger the relationship between teacher and child, the more engaging and differentiated the program can be. Students benefit from the cycle of being "youngers" one year and "olders" the next as they are gaining familiarity, are known deeply, and have the opportunity to lead and learn from each other.

Flexible, Mixed-Ability Grouping

Children work within various group arrangements regularly – as individuals, pairs, triads, small groups, large groups, and whole class. The groupings are reconsidered frequently and are based on interests, needs, learning styles, problem solving, and skill instruction. School-wide, children ages 5 to 14 interact in many ways. We deliberately create opportunities for students of all ages to learn with and from each other.

Community Building

School and classroom communities are carefully nurtured through attention to relationships and routines that promote feelings of safety and belonging. People at Wingra know each other and are known well. We teach students to be compassionate, supportive, and inclusive through an intentional social curriculum.

Reflective Teaching and Teamwork

Teachers plan and work cooperatively with colleagues throughout the school. Camaraderie and a sense of shared purpose are key to successfully nurturing Wingra School programming and all of our students. Staff members collaborate and engage democratically to make decisions about most aspects of our program.

Authentic Assessment

Every student interacts with curriculum in a unique way that is of value. Success is measured in terms of relevance to the individual learner. Our goal is to academically engage and stretch children in meaningful ways while always recognizing them holistically. The assessment we do is ongoing; the purpose is to better understand students so that we may best support their learning and inform our responsive curriculum.

Parent Involvement

Parents are seen as important partners in student learning. A continuous exchange of information is critical to keeping parents informed and involved. Partnerships are enhanced and solidified due to the time spent together on behalf of the child, recognizing and supporting shares goals. Opportunities exist for parents to be involved in many aspects of the program.

Program as Working Model

As an independent school we have the autonomy to design and implement the kind of program we know best for children. The well being of children and a deep understanding of childhood are at the core of all our decisions. All constituents contribute to sustaining this model. We encourage other educators to inquire, visit, and gather information about our program to support their own work and vision.

Program Goals

The primary, over-arching, goal of Wingra's Sky program is to provide an environment in which the objectives below are fully realized in our classrooms. It is not our intent to implement a rigid, predetermined curriculum, but rather to support adolescent growth and learning in an integrated manner that promotes self understanding, skill development, and the desire to continue learning. We fully embrace the major goals of middle level educators as put forth by the NMSA (Addendum 2, Page 40) with an appreciation for the characteristics of adolescent development they have also outlined (Addendum 1, Page 37).

At Wingra, we believe that adolescents need to:

✓ Be loved, respected, and cared for by their parents, peers, and teachers.

✓ Be known and valued as individuals with unique interests, abilities, and challenges.

✓ Develop healthy, respectful, open and trusting working and learning relationships with significant adults.

✓ Develop trusting and mutually beneficial relationships with peers and to experience them as important partners in learning.

✓ Participate in a larger school community and to develop a positive understanding of self in relation to that community.

✓ Feel physically and emotionally safe in order to take the risks necessary for personal growth.

✓ Reach out to the wider community in meaningful ways.

✓ Maintain a healthy sense of curiosity and to develop practical skills in applying that curiosity to explore ideas, think critically, and solve problems.

✓ Explore a wide range of content and subject areas and to experience the self-confidence and heightened self-esteem, which accompanies mastery of new skills.

✓ Develop an appreciation for the power and beauty of ideas and to experience the intrinsic value of intellectual pursuits.

✓ Know that they are continually learning and growing, and to develop a comprehensive understanding of themselves as learners.

✓ Have many opportunities for self-expression and to develop a repertoire of skills in the creative and practical arts.

✓ Share their talents and skills with others and to have regular opportunities to nurture, support and teach others.

✓ Work within structure and well-defined limits and to learn skills in self-management by experiencing failure and success in a supportive and responsive environment.

Sample Classroom Schedule

8:30   **Morning Adjustment:** We transition from home to school as gently as possible. The first part of the day is spent visiting with people in the classroom and elsewhere in the school and working on organizational tasks such as reading the day's schedule, preparing "to do" lists, checking in with a teacher and selecting activities from centers.

8:45   **Morning Meeting:** Our meetings begin with a discussion of the day's events in history, followed by announcements. At the beginning of each week we proceed with the plan sheet, which serves as an introduction to the week's schedule, responsibilities and activities. On other days, the morning meeting continues with classroom business or discussion topics suggested and often facilitated by students. These topics have included issues in the news, classroom functioning, and follow-up on academic themes.

9:20   **Snack:** Active bodies and minds need their energy supply replenished.

9:30   **Mathematics:** Mathematics is one curricular area in which students are divided into groups by grade-level. The foundation of our program is the *Mathematics in Context (MIC)* curriculum developed at UW Madison, Britannica publishers. *MIC* builds conceptual understanding through real world applications of math skills. We supplement student learning with individual textbook work, problem solving practice, computational fluency and mental math.

10:15   **Work Time:** (on average, about one and a half hours per day) Students learn to organize their time and space as they prioritize and attend to their academic work. During this time, students may opt to work in various places throughout the school, collaborate with others, use the classroom or school computers, and confer with teachers.

                 Art, Music, Technology, Literacy: Students rotate through these classes. On Monday, students participate in ArtShop, long-term projects of their own design.

                 Literature Groups: Some mornings are set aside for regular small group meetings to discuss young adult literature on a variety of topics. Together, students read, discuss and reflect upon a literary topic or piece of literature.

                 Writing Workshop: These times are set for learning to improve the quality and variety of ways humans communicate with each other.

11:45   **All-School Recess:** Students play and interact with students of all ages on the playground.

12:15   **Lunch:** Students eat with students of all ages in the gym or open campus locations. Lunch in the library and other student initiated groups meet as well.

12:45   **Silent Reading:** Students and staff engage in silent reading and quiet activities.

Graduating Senior Meetings: Third year Skyers meet to discuss transitioning to high school, ways of taking a leadership role in the Wingra Community and beyond, and have regular assignments focused on American History.

1:00-3:00   **Spanish:** Students rotate through Spanish instruction and work times.
Wellness: Students participate in gross motor, fine motor, mindfulness activities, and discussions surrounding health and wellness
Unit Based Activity Time: This extended time is set aside for field trips, guest speakers, science labs, and whole group activities that enhance our unit studies.

3:00   **Read Aloud:** At the end of the day, teachers and students read carefully selected and well-rehearsed literature to the class. The theme of teacher-read selections typically corresponds with the current unit of study. On Fridays, students are encouraged to sign up if they would like to read to the class.

3:15   **Auf Wiedersehen:** We say good-bye at the door with either a handshake or a hug.

On **Fridays** at Wingra we concentrate on closure, communication with home, and community activities. Be sure to look at the work in your child's take-home folder before sending it back on Monday. Once back at school, all student work is filed in individual portfolios.

1:15   **Learning Partners:** Older students are paired with younger students from other classrooms for oral reading, book discussions, and other learning opportunities. Sky students benefit from learning with youngers and taking good care of them in a nurturing way.

2:00   **Friday Follies:** Once a month, the whole school gathers in the gym to share music, projects, and performances.
All-School Choice: One Friday per month, students from each Wingra classroom select from a wide range of activities offered by staff and parent volunteers.
Wingra Service Learning Groups: time set aside for connecting and working with community organizations.

Three-Year Curriculum Framework & Units

Each year, Wingra Sky teachers consider many options and possibilities as they determine the units of study that will shape their academic curriculum. In total, the Sky generally creates about eight units of study per year. The themes represent a balance of science and social studies topics that incorporate content standards.

In designing units of study, teachers consult state, local and national standards for up-to-date lists of "content to be covered". They review textbooks related to the disciplines they are considering. They spend time finding primary sources and other resources throughout the community. They also look back on the themes of the previous two years to ensure breadth and balance across the disciplines.

Student interests, enthusiasms, and needs are assessed and explored during the first weeks of school and throughout the year. In all that we do, we do our utmost to balance responsiveness with responsibility. As educational professionals, we take responsibility for designing a curriculum that addresses the necessary breadth and depth of student learning while leaving room for students to exercise their own voice and choice in many ways. Through this balance, we strive to create meaningful, worthwhile experiences that are satisfying and engaging to our students.

Because we see the world as our classroom, we regularly incorporate current events, trends and issues affecting children's lives into our studies. Seasons and the natural world, holidays, important dates, access to community resources, and family backgrounds all also have a place in the shaping of our academic lives together. We are able to help all of our students learn, grow, and build powerful connections with information.

In reviewing middle level standards from several sources (including Madison Metropolitan School District Content Area Standards, Wisconsin Common Core State Standards, and standards set forth by National Associations) it is evident that our three-year program more than covers the recognized content standards. Indeed the standard content accounts for a fraction of our studies.

The document **Sky Units of Study Aligned with Subject Area Content** (available by request) is a format that we created to more clearly demonstrate how we are able to "cover the content" put forth in sets of standards without having them be the driving force in our design. For this model, we collected curricular sketches from the Sky over three years, coded them by year and unit, and marked the standard that each activity from each unit "covered". This was a very exciting process in that it brought the curricular sketches to life.

Sample Units of Study

Year A	Year B	Year C
Predictability/Unpredictability	Balance	Changes
Resistance/Social Movements	The Presidential Election/Physics	Watersheds
Government and Civics	Economics/Earth Science	Health, Wellness and Human
Student-Run Unit	Beliefs and Science	Sexuality
Chemistry	Student-Run Unit	Evolution
All-School Unit: Going Green	All-School Unit: Science Camp	Student-Run Unit
The American Civil War and Its Legacy	Comm Arts, Science, and Tech	All-School Unit: Food for Thought
	Christendom and Imagine Projects	Controversial Issues

Sample Three-Year Curriculum Study

	Year A	Year B	Year C
Read Aloud	Stargirl - The Silenced - Time Capsule	Make Lemonade - City of Ember - Luna	Surrender Tree - First Part Last - The Heaven Shop - Seed Folk - The Wave
Literature Groups	*Shakespeare Workshops:* Much Ado About Nothing - Resistance/Social Change - Civil War - Coming of Age - Peer Recommended	*Shakespeare Workshops:* A Midsummer Night's Dream - Balance - Coming of Age - Beliefs - Peer Recommended	*Shakespeare Workshops:* A Comedy of Errors - Jane Addams Award Winner - Identity - Social Justice - Peer Recommended
Literacy	Found Poems - Dialogue Journals - Learning Partners - Science Lab Reports & Summary Reflections - Creative Writing - Bill Proposal	Two-Voice Poems - Dialogue Journals - Learning Partners - Science Lab Reports - Memoir - Letter to the President - Personal Essay - Five-Paragraph Essay	Water Haikus - Dialogue Journals - Learning Partners - Science Lab Reports & Notebooks - Imagery - Interview Adult: Teen Memories - Flour Baby Journal
Published & Public Pieces	'Zine - Room Job Applications - Independent Research - Performance Piece (KNO) - Sky Anthology - Impress Presentation: Social Resistance Movements - Imagine Project	'Zine - Room Job Applications - Independent Research - Performance Piece (KNO) - Public Service Announcement - Sky Anthology - Impress Presentation: Natural Resources - Imagine Project	'Zine - Room Job Applications - Independent Research - Performance Piece (KN0) - Sky Anthology - Impress Presentation: How to… - Imagine Project
Social Studies	Timelines and Maps - Geography Skills Center - Current Events - Resistance Movements - Government and Civics - Civil War	Timelines and Maps - Geography Skills Center - Current Events - US Gov. - The Presidential Election - Economic Systems	Timelines and Maps - Geography Skills Center - Current Events - Democracy's Basic Principles - Behavioral Sciences
Science	Electricity - Energy and Power - Nature of Science - History of Science	Chemistry - Physics - Biology - Ecology - Earth Science	Community Ecology - Reproduction, Heredity and Human Genetics - Ecology - Evolution
Math in Context	Take a Chance - Measure for Measure - Models You Can Count On - Expressions and Formulas	Dealing with Data - Comparing Quantities - Triangles and Beyond - Re-allotment	Ups and Downs - Powers of 10 - Fraction Times - Looking at an Angle

Curriculum Matrix

This matrix illustrates our curriculum across age levels and areas of study. Although this document delineates subject area and age level, Wingra students engage with these topics through rich integrated thematic units that vary from year to year. It is a living document that represents our child-centered, responsive curriculum as it adjusts to student needs, unique interests, and current events to make the most of each learning moment.

For an interactive format and more information including curriculum in other levels, sample projects, highlights, and resources, please visit the Wingra School Website at www.wingraschool.org.

Literacy in the Sky

Philosophy Statement

What counts as literacy? Literacy cannot be limited to the mastering of specific reading and writing skills. We want to generate knowledge from our experiences and those experiences include more than print texts. As texts and media evolve, so does our understanding of what it means to teach literacy. The dynamic nature of technology, language, stories, media, and communication, creates a varied experience for every student in the Sky. Each student brings a different relationship to writing, and values the process in their own inimitable way. Our goal is for students to feel comfortable in the writing process, working at drafts with others' input, to come to a finished piece that best reflects their purpose and ideals. Students appreciate that different writing structures can be used to learn about and respond to the world around them. A poem, song lyrics, a performance piece, or letter to the editor can be as valuable–or more so--as a five-paragraph essay. Students practice identifying ways that they best critically take information in and, separately, determine how they best demonstrate what they know. We want students to be engaged participants in a democracy, and strive to build a culture of respectful speaking and listening. Students learn to speak with an understanding of how they are received, listen with patience, and read all literature with a critical eye towards the big picture. Reading and writing are skills specifically valued by dominant culture. We value them as well, and, we want students to develop a greater breadth of skills to read and write the world.

Understanding Goals

What is voice? How is voice connected with identity? How do I share my voice? How do I make meaningful connections between a text, myself, and the world? What do I find provocative and profound in the world? What are the connections between aural, oral, and visual text? What is the difference between formal and informal communication? How can I feel comfortable sharing my internal world with others? What do I do with silence and emptiness? Why would anyone want to hear what I have to say? How do I develop trust in myself, and others so that I can take creative risks? How do others receive my efforts to communicate? How do I make room for others' attempts to communicate with me? How do I identify my audience? How do I interpret nonverbal cues? What are the most effective ways for people to communicate with me? How can I help others communicate better? What is code switching? Why are facilitation skills important? How can social interactions improve my communication skills?

How is language a tool to look at our own culture and thinking? How does that change – with time, with context? How do the structures of culture build on the values shared by communities? How do the various forms of technology affect communication? How is culture reflected in media? What do I have to say as a critical reader? What is objective and what is subjective? How do I develop and practice a healthy skepticism?

Why – and how – do we tell stories? What are writing processes and which ones are most effective for me? What impact does my audience have on my purpose when I create? How can I learn by writing? How do I write an effective essay? How do I organize my research to write a solid research paper? Why is the "essay" such an important form of academic writing? How do I recognize my bias in research writing? How can I learn to write better by reading a variety of texts? How can stream of consciousness writing help me develop ideas? What are the advantages and disadvantages of writing from different points of view?

Why read varied genres? How can figurative language deepen an author's message? What did I have to figure out to be able to read this story? Why did the author tell this story? How do bias and context affect an author's point of view? How does the author's point of view affect my interaction with a text? When do my values affect my assumptions? How do I recognize and discuss themes in the books I read? How do "fantasy" and "make believe" teach "real-world" messages?

Key Concepts and Skills

Observing, Listening, and Speaking: Be aware of ambient sound and visual cacophony. Negotiate your focus, balancing internal and external demands. Initiate, facilitate, and participate in discussions that stir genuine insight and deep thought. Restate ideas in your own words. Clarify or ask questions that further the conversation. Speak and listen with focus and consideration, participating in the creation of a positive learning environment. Understand and practice democratic principles. Prepare and present information in a variety of contexts and audiences. Speak extemporaneously. Understand and make use of appropriate body language, tone, and volume.

Describe ideas and opinions with clarity in classroom discussion. Choose communication styles appropriate to specific audiences. Argue effectively and civilly for your personal point of view. Respond with useful feedback to peers' writing and ideas. Present regular book talks, sharing your reactions and opinions about literature with the class.

Reading: Actively engage with various texts, questioning, making predictions, finding connections, and identifying themes. Find time to read every day, building fluency, and stamina. Relate literature to personal experience, other works, and world events. Thoughtfully interpret and respond to literature. Share personal opinions of literature and make effective recommendations to peers. Identify and discuss perspectives and elements of social justice and injustice in literature. Navigate non-fiction text with specific nomenclature to build content/ideas. Read aloud with accurate pronunciation and expression.

Use text as a source of information to defend opinions or statements. Expand personal reading territories beyond familiar genres, cultural story shapes, and symbol systems. Read with a critical eye and healthy skepticism across disciplines. Explore personal understanding through detailed examination of text and conversations about the text. Recognize and evaluate stylistic elements of writing. Use patterns and themes to make meaning and predictions about the story. Appreciate the aesthetic qualities of language. Delight in language play. Attend to building vocabulary.

Writing: Recognize writing as a way to organize, expand, and communicate thoughts, ideas, emotions, and questions. Use writing as a vehicle for creativity and exploring our imaginations. Recognize and incorporate effective writing techniques in original works. Rearrange early drafts to fully elaborate ideas in effective revision. Respond with specific and useful feedback to peers' writing and ideas. Develop original synthesis of concepts covered in the curriculum. Originate and evolve personal voice through writing.

Recall and use previously taught writing structures and conventions. Explain the "why" and "how" underneath personal concepts and claims in nonfiction writing. Use learned writing structures and strategies for different purposes: expository, persuasive, and personal. Use an effective "writing process" to fully develop writing with clear organization and sufficient detail.

Develop strong opinions and claims, based on evidence. Reflect on personal progress to self-assess and guide future choices. Discover personal reasons to create and finish original pieces of writing. Craft and deepen personal voice in writing and speech.

Math in the Sky

Philosophy Statement
We believe development in all areas of mathematics supports increased conceptual understanding. Each year in the Sky, we provide a program of broad experiences rather than narrowing a student's practice to one aspect of math, such as algebra. Students continue to learn algebra, geometry, data and statistics, trigonometry, and number theory throughout each of their three years in the Sky. During our structured math times, students cultivate an ability to balance playfulness with perseverance as they patiently apply multiple strategies to their problem solving. Being able to identify a reasonableness in an answer, make a model of a problem, or carefully articulate their thinking are hallmarks of a strong Wingra mathematician. Teachers intentionally guide students to be critical of real world data, helping them to identify bias or the misuse of data within a particular context. Perhaps most importantly, teachers work diligently to combat gender stereotypes, especially in math, science, and technology, which continue to exist in our culture. The overall mathematics program, which includes a combination of group and individual work, fosters higher level conceptual understanding with skill development and facility.

Overarching Understanding Goals
How can I play an active role in problem-solving and sense-making as it occurs in mathematics? What are the whys, not just the hows? How does my mathematics learning help increase the quality of my life? What are ways I can use math to make better sense of the world around me? How can I use math to express the ways I see the world? How can I be informed and critical of the data I receive on a daily basis in my life? How can I evaluate data so that I am able to identify bias or misuse of data outside of mathematics? In what parts of mathematics do we need to be fluent in everyday living? How can we not be amazed by the complexity and beauty of numbers?

How do we build fluency in the language of mathematics? What does it mean to be fluent in the symbols, language, and computation of mathematics? What are ways I can articulate my strategies and thinking in problem-solving? How do we show our thinking and tell how we solved a math problem? How can I model my thinking mathematically, communicate my strategy, and evaluate the reasoning of others?

How do I determine which of my problem-solving strategies will help me find a solution successfully? Can I patiently and flexibly apply multiple strategies from my toolbox to work through a problem? Can I muster a playful attitude while creatively addressing challenging problem sets? When I feel challenged by a problem, how do I persevere or stick to it? Can I evaluate and determine if a solution is reasonable? Am I able to create a model to demonstrate and communicate my brilliant thinking? How can I see beyond the gender bias that has historically been a part of mathematics in the U.S.?

Have I cultivated a sturdy basis of general mathematical understanding, including all valuable components of math (number, statistics, algebra, geometry), so that I am able to succeed in a specialized area of math in the future?

Focus Points & Understanding Goals

NUMBER SYSTEM
Focus Points: Emphasize that number sense, computations with numbers, and the ability to use numbers helps us to better understand real world and imagined situations. Understand the concepts of magnitude, order, computation, relationships among numbers, and relationships among the various representations of number, such as fractions, decimals, and percentages. Gradually develop ideas of ratio and proportion and integrate them with other number representations. Create models and use them as tools to support student understanding of numeracy concepts. The goals of the units within the Number strand are aligned with NCTM's Principles and Standards for School Mathematics.

Understanding Goals
Models You Can Count On: How can I make use of different number models to improve my understanding of how numbers work? What are the similarities and differences between fractions, ratios, percents and decimals? How are fractions related to division problems? How can I compare and make computations with fractions and decimals on a double number line and a percent bar? How can I combine benchmark fractions and percents to find non-benchmark fractions and percents?

Fraction Times: What does it mean when I add, subtract, and multiply fractions and decimals? How can I graphically represent fractions, ratios, and percents so that they can be compared? How can I use ratio tables to simplify fractions? What are meaningful strategies I can use to change a decimal into a fraction and vice versa?

Ratios and Rates: What is the relationship between scale and ratio? What are scale ratios, scale lines, and scale factors? How can I increase my facility and conceptual understanding of fractions, decimals, percents, and ratios? How can I solve problems with part-part ratios, part-whole ratios, and using rate of ratio as an average?

Facts and Factors: How is our number system built upon base ten? How do I write and read exponential notation and scientific notation? How can I use scientific notation used to express very big and small numbers? What are prime numbers and composite numbers? How can I efficiently determine factors of a number? How do I factor large numbers to their prime numbers? What does it mean to square and "un-square" a number? How do I use a model to calculate a fraction of a fraction or a fraction times a mixed number? What is binary code and how can I use it to express different values?

Revisiting Numbers: How do I use ratio tables to calculate averages, determine other equivalent ratios, and multiply and divide whole numbers? How do I change units of measure when dealing with speed rate problems? How can I use area models as a tool to multiply two-digit numbers and illustrate the distributive property? How are powers of ten

related to large numbers? What is scientific notation and how can I use it to represent a large number? How can I explain the relationship between basic mathematical operations such as: multiplication, division, addition, subtraction, square, and unsquare roots? What are integers, rational, whole, real, irrational, and natural numbers?

ALGEBRA

Focus Points: Emphasize algebra as a language used to study relationships among quantities. Describe these relationships with a variety of representations and make connections among these representations. Understand the use of algebra as a tool to solve problems that arise in the real world or in the world of mathematics, where symbolic representations can be temporarily freed of meaning to bring a deeper understanding of the problem. Move from pre-formal to formal strategies to solve problems. Learn to make reasonable choices about which algebraic representation, if any, to use. The goals of the units within the Algebra strand are aligned with NCTM's Principles and Standards for School Mathematics.

Understanding Goals

Expressions and Formulas: How do I represent a series of computations using proper math grammar? How can I create a formula for determining the height of stacking objects? How can I make use of a formula to set the appropriate seat height for my bicycle? How can I make use of a linear graph to represent a formula?

Comparing Quantities: How can I determine the price of an object making use of fair exchanges? How can I make use of symbols to represent quantities and specific objects instead of writing things out completely? How can I organize information to better recognize patterns and relationships? Is there a better way to solve certain problems rather than guess and check?

Building Formulas: How can I describe patterns in a table, formula, and graph? When do I use recursive or direct formulas in a real world context? What is the distributive property and how do I use parentheses in mathematics in general? How do I organize and choose appropriate representation for the information from a contextualized problem in a formula? Can I recognize relationships among representations (tables, graphs, and formulas) and discuss advantages and disadvantages of each.

Ups and Downs: How can I represent information using tables, equations, graphs, and word descriptions? What formal mathematical language can I use to describe patterns? What are the differences between linear and quadratic equations? When should I appropriately use different types of graphs, such as: line graphs, straight line graphs (linear relationships), periodic graphs, and graphs that show exponential growth?

Graphing Equations: How do I solve single variable linear equations? What are the similarities between graphic and algebraic strategies? What is the relationship between equations and graphs of a linear function? How do I use compass directions and angle measurements as tools for navigation? How do I use inequalities to describe a region?

Patterns and Figures: What are equivalent formulas and expressions? How can I create and use Next-Current formulas? How can I describe patterns in a sequence of numbers and shapes using words, number strips, and formulas? What kind of pattern does an arithmetic sequence illustrate? How do I use geometric algebra to make connections between geometry and algebra? What are the properties of triangular and rectangular numbers? How do I use geometric representation to show rectangular and triangular numbers? How can I use area diagrams and number strips to find equivalent expressions?

Algebra I: Expressions, Equations, and Applications: How do I interact with a traditional algebra textbook? How do I use the glossary and index as tools for my learning? What are different ways to learn algebra at this level? How can I use example problems from the text to inform my practice problems? How can I use my textbook as a resource when I am confused or want to learn more? How do I use my notes to study and complete a chapter review?

GEOMETRY AND MEASUREMENT

Focus Points: Understand how Math in Context uses Hans Freudenthal's idea of "grasping space" to form the principles of geometry that include movement and space in addition to the study of shapes. Describe what is seen from different perspectives and use principles of orientation and navigation to find the way from one place to another. Emphasize spatial sense and how it relates to how most people actually use geometry. Develop spatial sense to solve problems in the real world, such as identifying a car's blind spots, figuring out how much material to buy for a project, deciding whether a roof or ramp is too steep, and finding the height or length of something that cannot be measured directly, such as a tree or a building.

Relate the concept and application of a measurement system and standardized units to the substrands of Orientation and Navigation and Shape and Construction. Develop and apply measurement skills as an integrated component of units in the Number, Algebra, and Data Analysis strands, through topics such as use of ratio and proportion, finding and applying scale factors, and solving problems involving rates (for instance, distance-velocity-time relationships).

Understanding Goals

Re-allotment: How can I determine the area of irregular shapes? What are qualities of shapes that tessellate? How can I build on what I know about two-dimensional shapes and apply that to three-dimensional shapes? How can I measure the surface area and volume of three-dimensional figures?

Figuring All the Angles: How can I describe where something is in the world or on the planet? How do planes and boats navigate around the globe?

Triangles and Beyond: What are the properties of parallel lines? What is a transversal line? How can I prove that the angles of a triangle always add up to 180 degrees? What are the properties of congruent and similar triangles? Can I recognize and classify triangles (equilateral, isosceles, scalene, right, acute, and obtuse)? Can I identify and classify quadrilaterals (parallelogram, rectangle, rhombus, and square)? How do I define and recognize parallel lines, Pythagorean theorem, congruent figures, line of symmetry, and transformations (translations, rotations, and reflections)? Can I construct a triangle with the use of a compass and a ruler? How can I use the properties of triangles and parallel lines to solve problems with the Pythagorean theorem and the rule that the sum of the angle measurements in a triangle is 180 degrees?

Looking at an Angle: What are vision lines and blind spots? How does the angle of the sun's rays affect what I am able to see? How do I use tangent, cosine, and sine to solve a problem? How do I use the Pythagorean theorem and its reverse? How can I apply my knowledge of ratios, proportions, and angles, to understand sine, cosine, and tangent?

DATA ANALYSIS

Focus Points: Accept that our lives are full of uncertainty and use data analysis and probability to help us measure variability and uncertainty. Make numerical conjectures about important questions. Understand general patterns for a set of outcomes from a given situation such as tossing a coin. See realized outcomes as only part of the larger pattern.

Expand viewpoint to see beyond individual cases and events and how they relate to the overall features of data sets, probabilities, and proportions.

Understanding Goals:

Take a Chance How are the words fair, sure, uncertain, unlikely, and impossible used in mathematics? How can I determine the probability of certain events? How can I determine the number of combinations and possible outcomes of certain situations?

Dealing with Data: How can I create and interpret different graphs such as scatter plots, box plots, stem-and-leaf plots, histograms, and number line plots? How do I collect data and represent it in tabular or graphic form? Can I identify advantages and disadvantages of different graphical representations? How can I describe data numerically using mean, median, mode, quartile, range, maximum, and minimum? Can I identify the difference between a representative sample and a population? How can I use data, graphs, and numeric characteristics to build arguments and compare data sets?

Science and Engineering in the Sky

Philosophy Statement

The Sky's constructivist approach to learning is scientific in nature. We start with where the students are in their understanding about particular phenomena and through collaborative investigation, sharing, and testing their ideas, develop a sound understanding of scientific concepts. The curriculum focuses on stewardship of the earth and its resources. Making sense of themselves and the world around them is ongoing. They learn to think and interact in the world like scientists. We consider the ethics of various applied scientific and technological concepts especially on marginalized populations and sensitive environments. We encourage a healthy skepticism while simultaneously finding value in knowledge for the sake of knowledge.

Students work collaboratively investigating, researching, experimenting, gathering data, researching other sources, organizing results, drawing conclusions, and asking further questions. We make space for failure and encourage safe risk-taking in intellectual processes.

The main objectives of our science program are to: 1) inspire a sense of wonder in our students so they will continue to investigate scientific questions on their own; 2) equip our students with the knowledge and the tools they need to research answers to scientific questions.

Sky students work with units related to physical science (chemistry and physics); biological and life sciences; and earth and space sciences. Much of the science is inquiry-based and problem-solving in nature. Embedded in students' science learning are aspects of the history of science, the nature of science, and model-building explanations for natural phenomena. Teaching strategies include: readings from various sources (i.e. various textbooks, newspapers, journals, other student's writing), labs, opportunities for tinkering, demonstrations and presentations by experts in the field, and visits to working laboratories. We frequently borrow materials from the university, visit science laboratories, and practice various lab techniques. Sky students maintain science notebooks which include detailed diagrams, data, summaries of experiences, and lab reports.

Our approach balances instruction and hand-on experiences; the curriculum is guided by students' developmental ages and stages, Next Generation Science Standards, Wisconsin Model Academic Standards, and, most importantly, our progressive ideals.

Overarching Understanding Goals

How do I make sense of things that I cannot see nor experience? What does it mean to think and act like a scientist? How do I determine whether to accept or not accept scientific information? How do belief systems play a role in a scientific reasoning and understanding? What are ways that people other than white males have contributed to cumulative scientific knowledge? How do scientific concepts have relevance in my life? How do I apply scientific knowledge to my personal decision-making? How do I make evidence-based scientific claims? How do I test a claim or gather meaningful data? How do I maintain my sense of wonder about myself and the world around me? What are worthwhile sources to use as evidence for my reasoning?

Concepts, Processes, and Skills

Next Generation Key Concepts: Patterns; Cause and Effect; Scale, Proportion, and Quantity; Systems and System Models; Energy and Matter; Structure and Function; Stability and Change

Concept Examples: Structure and Properties of Matter; Chemical Reactions; Forces and Interactions; Energy, Waves and Electromagnetic Radiation; Structure, Function, and Information Processing; Matter and Energy in Organisms and Ecosystems; Interdependent Relationships in Ecosystems; Growth, Development, and Reproduction of Organisms; Natural Selection and Adaptations; Space Systems; History of Earth; Earth's Systems; Weather and Climate; Human Impacts; Engineering Design; Genetics; Evolution; Climate Change

Skills: Collaborate with others to formulate specific ideas and practice skills. Ask questions and define problems. Develop and use models. Create and interpret diagrams. Plan and carry out investigations. Analyze and interpret data. Use mathematics and computational thinking. Construct explanations and design solutions, engage in argument from evidence. Obtain, evaluate, and communicate information. Tinker, fail, redesign, and modify. Dissect. Make slides and use a variety of microscopes. Maintain detailed science notebooks for observations, record keeping, and lab reports. Increase familiarity and ease with the metric system. Identify meaningful ways that science is embedded in other disciplines.

Social Justice in the Sky

Philosophy Statement

We believe that democracy is a way of living based on fundamental concepts and promises made by our country's founders reinterpreted for changes and challenges in our society through time. We incorporate these fundamental concepts of democracy into our daily classroom life. We believe that living these concepts can lead to a more socially-just society. We recognize that the promises of our country's democratic project have not been fulfilled due to injuries inflicted on certain individuals and groups, limiting and/or denying opportunities for living happy and healthy lives. Students collaboratively problem-solve to generate positive remedies to issues in the classroom and larger communities.

We know that teaching is a political act and that each kind of schooling contains its biases. We strive to develop the skills to recognize these biases, and apply them to our own functioning. Our critical pedagogy stretches across all

subject areas, routines and rituals. Students are encouraged to critique information, social structures, and decision-making processes that they experience here and in their various communities. The use of centers and co-created curriculum situates students as active agents in their learning. As a result, students are more willing to remain open-minded, take risks, and accept challenges.

Understanding Goals

How do I develop an honest sense of self? How do I function in a community, advocating for myself accurately and appropriately? How do I advocate for others? Do I understand my strengths and challenges and can I communicate those to others? Can I understand where I have power and opportunity in my personal life and my communities? How do I apply a healthy skepticism to the world around me? What is my bias and how do I address it? How do I identify injustice in my community? How do I empathize with someone who is different from me? How do I advocate for the needs of someone whose needs are different from my own? How do I interact positively with the natural world? How do I stand up against prejudice and hatred? How do I learn from past activists to inspire my own activism? How can I use my past experiences to inform my future decisions? Can I identify societal trends and understand the relationship between past and present issues of injustice? Can I listen to multiple perspectives on an issue and form my own opinion, even if it differs from dominant culture? How can I respectfully ask and listen about other people's histories and lived experiences?

Focus Points

Identity: Express pride, confidence, and healthy self-esteem without denying the value and dignity of other people. Learn to be honest about their strengths and challenges as individuals in our learning environment. Learn and apply self advocacy skills that will lead to advocacy for others. Be critical of labels and categories in order to embrace the fluidity and authenticity of identities. Recognize traits of the dominant culture, home culture, and other cultures, and understand how to negotiate individual identity in multiple spaces. Make a respectful contribution reflective of their identity, to any group of people.

Diversity: Express respect for and engage with people similar to and different from themselves. Recognize the importance of diversity and the biological impact in our ecosystem. Relate to and build connections with other people by showing them empathy, respect, and understanding, regardless of our similarities or differences. Understand that diversity includes the impact of unequal power relations on the development of group identities and cultures. Appreciate that aspects of identity are on a spectrum, and respect the fluidity of human existence. Maintain an open-mind, remembering that the experiences and point of view of others is different, yet valuable.

Justice: Recognize that biased words and behaviors and unjust practices, laws, and institutions limit the rights and freedoms of people based on their identity groups. Construct direct and explicit conversations about power and authority. Value that everyone has different needs or needs different supports. Identify stereotypes and relate to people as individuals, rather than representatives of the group. Understand that unfairness exists on an individual level (e.g., biased speech) as well as on an institutional or systemic level (e.g., discrimination), and that the solutions for both take individual and collaborative action. Learn facilitation skills and apply various appropriate inclusive decision-making models. Study various dates in history and make connections between events and people affecting positive change.

Action: Educate yourself and others about issues that are meaningful to you. Add topics to an open agenda, volunteer to facilitate discussions and processes that led to meaningful action. Carefully consider the ideas of others in an effort to create a community that includes and honors all. Ask questions, be critical of inherited traditions or commonly accepted ideology of the dominant culture. Contribute to a culture of thoughtful discourse with a variety of people around a wide range of ideas. Find meaning in curriculum and determine its impact on your personal life and daily decisions. Understand that daily decisions have potential and direct impact, for good or for bad, on others whether they know them or not. Work to identify and break down systemic or institutional constructions that contribute to injustice.

Social Studies in the Sky

Philosophy Statement
Our overarching goal for our students is to become strong, healthy individuals that contribute positively to the various communities that we are a part of. Instead of just learning about the fundamental concepts of our democracy, we put them into practice daily. We recognize that we are political and social creatures and there is much to be learned about the broader world by examining the social interactions we are involved in at school. Students learn to be effective advocates for themselves and others by being encouraged to respectfully challenge authority, to raise issues that concern them, to facilitate classroom meetings, to take responsible and inclusive action in addressing issues, and to participate in co-creating and modifying curriculum. We confront the tension between individual rights and what is the common good honestly. Students come to understand that the health of the community (any community) is based in our individual choices and actions. We understand that democracy is not a thing but a way of life that requires regular evaluation and adjustment. Carefully examining how we function as a community here informs how we examine the wider world of social studies, and learning about social studies informs us about how we can better live our lives. Our classroom community is a laboratory to develop our ethics that lead to a healthy, inclusive, just, and sustainable society.

Forming individual identity is some of the most important work adolescents do in itself. This individual identity work is also important in considering the identity of communities and society. Developing an understanding of self comes from the internal as well as the external. Helping students make sense of factors that impact identity including biological, environmental, and human constructions (race, gender, sexuality, etc.), is an important responsibility when developing curriculum.

Understanding Goals
How does my personal story affect the way I view the world? Should we have rules to guide us? How can we best function as a classroom community? What are different kinds of decision-making models? What are the strengths and challenges of major forms of government and economic systems from around the world and in history? Can I think critically about systems of government and their representation of minority groups? What is the difference between democracy and capitalism? What are rights? What are human rights? What rights are protected under the constitution? How does the constitution change and how has it changed? Has the constitution aged well considering the modern context with the ideas of the writers? What rights of indigenous peoples have the U.S. government recognized, and what rights have been abused? How does status and social class affect the interaction of individuals and social groups? How does our federal government utilize a system of checks and balances in order to maintain our democracy? How do I identify and analyze power and authority in constructed systems, such as a democracy? How do we decide how to live

together? How do we deal with differences of opinion? What is the role of government in regulating the economy to create a just and sustainable economic system? What gives things value (collectibles and art)?

Who decides what is important now and important in history? Why do we study history? What does history have to do with me and now? What can we learn about human behavior from studying history? Can I organize historical events chronologically, thematically, geographically? How do the Earth's physical properties dictate the movement and settlement of civilizations? How do historians identify and gather evidence to help them make sense of the past? How do the arts, literature, and media influence and reflect societal values and perspectives of the past and present? What impact has technology had on human interaction? Where can I find reliable information about current events? How do I use evidence to argue in support of or against the issue under consideration? How can I identify gaps in information and find missing information?

Focus Points

Civics: Participate in the construction and maintenance of the classroom and school culture. Develop an understanding of the rights and duties of citizenship. Explain the conditions in early settlements that led to the formation of the first formal governments. Participate in civic discourse. Evaluate, take, and defend positions on various topics, using research and firsthand experience. Identify personal bias and/or privilege. Increase understanding of non-dominant culture perspectives. Describe the purpose of government and how its powers are acquired, used, and justified. Consider where rights come from and who has them throughout history. Identify, critique, and discuss important political documents, such as the Constitution, Bill of Rights, and landmark decisions of the Supreme Court and explain their function in the American political system. Identify and explain democracy's basic principles including popular sovereignty, liberty/freedom, individual rights, responsibility for the common good, representation, equal opportunity, and equal protection of the laws. Understand how the federal, state, and local governments overlap and are separated. Analyze differing points of view in sources as well as the motivation for them and the possible consequences that may result. Analyze the authenticity and validity of sources.

History: Develop an understanding of human behavior, how decisions have been made, and how events from the past have lasting impact and influence after they are over. Utilize a variety of sources for information, summarize, pull out key information, and synthesize. Describe how technological advances have led to increasing interaction and conflict among regions and nations. Assess multiple sources, recognizing perspectives and bias. Summarize major issues associated with the history, culture, and tribal sovereignty of the American Indian tribes in Wisconsin (Act 31). Identify contributions from ancient civilizations to the present. Identify causes of events and hypothesize about influence on the past, present, and future of a specific culture. Recognize the connection between historical context and the evolution of all academic disciplines, such as mathematics, sciences, and artistic expression.

Geography: Identify and explain how physical features and climate influence history, culture, and society. Identify different types of maps and describe their bias and uses. Understand the migration of people and ideas. Describe and analyze the movement of people and ideas in the expansion of the United States. Identify the impact humans have on the geography of the earth.

Economics: Learn about various economic decision-making philosophies and models (in particular free-market liberalism and socialism). Identify how capitalism and a democratic system of government are different, and linked, in the U.S. Understand supply and demand. Recognize how young adults are targeted and exploited as a valued market

with financial resources. Learn about personal money management. Be critical of consumer choice as power. Understand the power and strategies of advertising. Understand the history of workers' rights, unions, and policies designed to promote the welfare of employees. Explore and analyze statistics, interpret data displays, and investigate sampling techniques especially around social justice/equality issues (i.e the glass ceiling). Examine causes of income disparity and poverty, and locate possible solutions.

Behavioral Science: Learn about various philosophical ideas to develop a personal philosophy and moral code. Consider how our individual and group stories affect our perception of the world and how it functions. Learn about the history of ideas and how and why they have changed (i.e. mythopoetic times, Age of Reason, etc.). Describe how culture and history is reflected in literature, music, art, and architecture. Form and express opinions and be willing to revise an opinion based on additional information. Recognize the importance of multiple viewpoints for understanding people, events, and issues. Describe the ways family, gender, race, ethnicity, nationality, and institutional affiliations contribute to personal identity. Identify and interpret examples of stereotyping, conformity, propaganda, and racism. Analyze sources for gender bias and stereotypes.

How and when does academic instruction take place?

Academic instruction (literacy, math, science, social studies and personal development) is presented through an integrated, theme-based curriculum designed collaboratively by the Sky teaching team.

Units of study are presented in two main ways: guided choices at centers and group activities. Each week, classroom teachers provide instruction in geography, history, literacy, math, science, and social sciences. These are in the form of workshops, labs, hands-on activities, field studies, presentations, and demonstrations.

Math classes, literacy workshop, and literature groups are designed around teacher directed instruction. Math instruction takes place every day. Literacy workshops are scheduled weekly, and literature groups are held weekly for four–to-six weeks at a time, throughout the year.

The use of centers allows students to make decisions about time management, appropriate level of difficulty, depth of study, and method of gathering and sharing information from a menu of choices with clear expectations. A variety of activities are offered to accommodate a range of student skills and strengths. Centers are labeled by discipline, sometimes combining disciplines when appropriate.

At centers, teachers work to provide information from a variety of genres and sources, including primary sources; present the information with a range of modalities (literature, video, sound recording, charts, graphs); and offer students choices of how to demonstrate the knowledge that they have gained. This is often followed by both sharing and reflection, which in turn give students the opportunity to learn from the intellectual pursuits of their classmates.

During work times throughout the week, teachers are actively monitoring students and engaging students in discussions, supporting them, and stretching them further.

How are academic expectations for each student communicated?

Every Monday during the **plan sheet** meeting, students are introduced to the theme of the week through the plan sheet (a.k.a. the "blurb"). The plan sheet also includes: the schedule for the week, an introduction to center work, whole class activities, labs, and workshops and , a list of other weekly responsibilities.

Additionally, the plan sheet includes **a list of the academic expectations** for that week. These include: whole class unit activities (labs, field studies, guest speakers, special activities, workshops), center work (textbook or workbook assignments, hands-on activities, gathering and reporting on information, exploring and reflecting on information), and classroom housekeeping assignments.

Verbal and written instructions for specific assignments are shared during whole-group times, at centers, or in small group settings. Strategies and skills related to **Habits of Mind** (Addendum Page 47), **Self-Editing** (Addendum Page 48), and **full-value contracts** for participation are explicitly taught, practiced and reviewed throughout the year. During the course of each week, teachers work with and closely observe students; offering support, guidance, feedback and direction. In one-on-one check-ins, students further evaluate and reflect upon their work with the direct guidance of a teacher.

Students are expected to participate in and **complete assignments by Friday** of each week. The exceptions to this would be long-term assignments such as playwriting, independent research projects, and impress presentations. These long-term projects are broken down into smaller increments, with their own timelines. Literature groups and literacy workshops often meet mid-week, with weekly assignments due at that time.

How are students accountable and how is this tracked?

Teachers keep **ongoing written records** of student activities and progress in literature groups, math groups, literacy workshops, and center work. Students also document their progress in each subject area on their check-in sheets every week. Students place **completed work** from all content areas in **turn-in bins** for teacher review. If complete, work is filed in their traveling folder to go home. However, if a product needs additional work, it is returned to the student desk with written feedback. Students needing additional assistance may discuss their work with a classmate or teacher during work time or with a teacher during their regular one-on-one check-in. Teachers record incomplete work, work that needs additional attention, and completed work on the check-in clipboard.

Check-ins are regularly scheduled, one-on-one meetings between a teacher and student. They generally take place on Fridays and last for about fifteen minutes. During check-in time, students reflect on their work, ask questions, receive feedback, account for all of their assignments, and develop a plan for further work.

Completed student work is filed in the **traveling folder** (attachment #3). After a Friday check-in, students take their traveling folder home. Parents may keep any informational flyers and end of the week letters. They then look at student work, return it to the folder, sign and date the folder, and return the folder and student work to school on the following Monday.

Once back at school, students transfer their work to their **portfolio folders**, selecting pieces periodically for their **portfolio**.

How do students monitor their progress and assess what they have learned?

We believe that each student progresses at his or her own rate in ways that are affected by abilities, challenges, and interests. Because we see learning as such an individualized activity, we do not use assessment techniques that compare one student's progress with other students' progress. Wingra students are not ranked according to grade point average and are not given letter grades.

Assessing student progress at Wingra occurs in a way that reflects a holistic understanding of the growing child as a learner. Teachers are keen observers of their students, and the small student/teacher ratio (12:1) allows for teacher involvement in each student's progress with opportunities for guidance, redirection, and revision.

Each Sky student meets regularly with a teacher to review their completed work and discuss their progress. Each classroom also uses a portfolio system to collect student work for long-term evaluation.

In younger Wingra classrooms, students are explicitly taught to choose "just right" books for themselves as they assess the many resources at their fingertips. This continues in the Sky, with works at centers often tiered and labeled by level of difficulty. At each center, there are often menus of choices for gathering information and for demonstrating knowledge. Demonstrations (through diagrams, posters, skits, songs, poetry, essays, presentations) are a form of

"summative assessment" which serves to reinforce learning for the student, inform teachers of student progress, and allow students to learn from each other's work.

Verbal and written instructions for specific assignments are shared during whole-group times, at centers, or in small group settings. Strategies and skills related to self-assessment are explicitly taught, practiced, and reviewed throughout the year with the guidance of documents such as **Habits of Mind Habits of Mind** (Addendum Page 47), **Self-Editing** (Addendum Page 48), and a **full-value contract**. Throughout the course of each week, teachers work with and closely observe students, offering support, guidance, and direction. During one-on-one check-ins, students further evaluate and reflect upon their work with the direct guidance of a teacher.

During check-in time students reflect on their work, ask questions, receive feedback, account for all of their assignments and develop a plan for further work.

At the completion of each unit of study, teachers prepare a curriculum sketch and a unit reflection. These documents provide a framework for remembering and reflecting upon their work from throughout the unit. Additionally, before parent/teacher conferences and the goal feedback conference, teachers provide guidance and instruction for students to reflect upon their goals and to prepare their portfolios for presentation to their parents.

How are students challenged to stretch themselves academically?

At Wingra, learners are given the tools, support and opportunity to repeatedly practice making sound academic choices that work for them. Traditionally, a good "student" is someone who receives information from an authority, follows directions well, and is able to understand and remember that information long enough to convey it satisfactorily in a formal testing situation. At Wingra we guide children to move beyond this limited role of "student" to become active learners, supporting them to become internally rather than externally driven, and helping them to learn and nourish their own minds.

Wingra teachers employ many strategies and approaches to help students develop as a community of learners, which enhances intellectually autonomy as they develop the appropriate skills, concepts, and attitudes necessary for their continued endeavors. Sky teachers actively teach self-regulation, design curriculum that is differentiated and responsive, and create experiences that include explorations, investigations and in-depth studies.

Self-Regulation
At Wingra students learn to shift their focus away from comparisons to peers and towards self-knowledge. They learn to be less reactive to their learning environments and more proactive. Goals guide activities, and students here learn many ways to attain their goals, and how to select effective ways to complete specific tasks.

Differentiation
Much of the curriculum in Sky classrooms is teacher-differentiated, meaning that modifications are made so that expectations can be responsive to the needs of different learners. In this case, differentiation is determined by the teachers, providing learners with what we refer to as guided choices. Content, process, and product are differentiated for the learning experience, with emphasis on understanding student learning and responding accordingly. This gives students more choice and involvement in their academic growth. Teacher differentiation is critical for scaffolding learner success and engagement.

We know that engaged learners also benefit from modification of curriculum based on their interests, abilities, and characteristics. Teachers throughout Wingra explicitly teach skills, concepts, and attitudes for lifelong learning. We are informed by the concepts of learning styles, multiple intelligences, and brain research, and are aware that each child has unique strengths and struggles. At Wingra, teachers challenge students to operate beyond the limits of their preferred learning modes. This level of learner engagement provides the opportunity for learners to be involved in the process of developing their own content, process, and products.

*This section is based on the framework put forth in "Fostering Autonomous Learners Through Levels of Differentiation," George Betts, **Roeper Review**, Summer 2004, Vol. 26, No.4, 190-191.*

When and how is student work corrected and refined from initial expression to final product? How are products assessed?

In the Sky classrooms, student work and learning is assessed, evaluated and responded to in an ongoing feedback loop. Assessment and feedback are part of the instructional process. Ongoing assessment is incorporated into classroom practice, providing information to adjust teaching and learning while they are happening. In this sense, ongoing assessment informs both teachers and students about student understanding at a point when timely adjustments can be made.

Fittingly, different assignments require different levels of feedback depending on the purpose and on student skill level.

Some assignments have very few criteria. For example, the dialogue journal is a mechanism for facilitating communication between teacher and student. Though this weekly assignment may have a length requirement, spelling and penmanship are not critiqued. This may also be the case for informal surveys, student responses, or notes from a class which are intended as vehicles for capturing student thoughts.

Assignments that are published or public pieces have specific criteria (length, content, presentation). Writing assignments that fall into this category are often taken through many rounds of revision.

Sky students are involved both as assessors of their own learning and as resources to other students. There are numerous strategies that Sky teachers use engage students in these practices.

In Sky classrooms, teachers supply students with explicit feedback as they learn. This feedback provides students with an understanding of what they are doing well, helps them to make links to other classroom learning, and gives them direct suggestions on how to reach the next step in the learning progression. Some specific strategies that Sky teachers employ are:

Shared criteria references such as Habits of Mind (Addendum Page 47), **Self-Editing** (Addendum Page 48), and **full-value** participation help the Sky community establish and define quality work together. Asking students to participate in defining the classroom culture and determining what should be included in criteria for success are examples of this strategy. Combining this with models of exemplars help students understand where they are, where they need to be, and an effective process for getting there.

Actively monitoring students means observing students; engaging them in conversations about their work, process, and thoughts; and tuning in to the conversations between students about their work and learning. This information is used in giving feedback to specific students and in noting trends that would inform wider curricular choices.

Questioning strategies are embedded in daily, weekly, and unit planning. Asking questions of students can provide them with an opportunity for deeper thinking and provide teachers with significant insight into the degree and depth of student understanding. Intentional questions can engage students in classroom dialogue that both uncovers and expands learning. Helping students to ask better questions is another aspect of this formative assessment strategy.

Self and peer assessments help to create a learning community within a classroom. Students who can reflect while engaged in metacognitive thinking are involved in their learning. When students have been involved in criteria and goal setting, self-evaluation is a logical step in the learning process. With peer evaluation, students see each other as resources for understanding and checking for quality work against previously established criteria.

In Wingra classrooms, our primary concern is always with student understanding, student interest in and connection to meaningful learning, and active engagement with the learning process.

*This section describing formative assessment at Wingra School is based on the framework put forth in "Formative and Summative Assessments in the Classroom," Catherine Garrison and Michael Ehringhaus, Ph.D,
http://www.nmsa.org/portals/0/pdf/publications/Web_Exclusive/Formative_Summative_Assessment.pdf, April 25, 2011*

Graduating Seniors

During their eighth grade year, students at Wingra School participate in Graduating Senior Meetings. This group generally meets once per week with a faculty advisor. During the course of the year, these students will work from an American History Textbook while practicing skills such as note-taking, outlining, test-taking, and summarizing. This serves as yet another opportunity to help students think critically about history: who writes it, who defines it, whose perspective is taught, and what primary sources are used. Grad seniors also practice taking a standardized test, in which they follow the routines of silence and filling in the dots within a certain amount of time. This test takes approximately twelve hours, over the course of two weeks.

In grad senior meetings, students discuss their role in the classroom and in the school. They talk about how they shape the school community and the legacy they would like to leave behind. Grad seniors take their leadership in the school, and their leave taking, very seriously.

Since 1988, Wingra School graduates an average of eleven students per year. Though Wingra is geographically located in the West High School area, our graduates move on to several different area high schools including East, Edgewood, Memorial, Middleton, Clark Street, Mt. Horeb, Verona, Shabazz, and Waunakee.

When possible, counselors from area high schools are invited to attend grad senior meetings to speak with students about the transition to high school, orientation activities, and course selection.

Wingra staff is involved in I.E.P. meetings for students who qualify for special education supports in the public school setting. Faculty members also speak with counselors or teachers in the receiving schools to help inform placement decisions as necessary. This includes letters of recommendation for talented, gifted, and honors courses.

Each winter Wingra School hosts an alumni night at which former graduates return to tell their tales of high school and beyond. Each year we hear that yes! the high schools that Wingra alumni attend are very different from Wingra School, and that Wingra grads have the academic, social, and navigational skills to thrive happily and productively in these institutions.

How do parents learn about what is happening in the classroom?

✓ Parents are encouraged to ask teachers or their own child for a copy of the plan sheet at the beginning of each week.

✓ Parents are expected to read a hard copy or electronic version of the Sky end of the week letter each week.

✓ When the traveling folder comes home, parents are expected to review student work, including the weekly check-in sheet describing their child's individual participation.

✓ Parents are invited to attend events such as Parent Night, I.P. presentations, and field trips.

✓ Parents are welcome to speak with teachers before or after school with brief questions, comments, or information.

✓ Parents are welcome to email teachers with questions, comments, and feedback.

✓ Parents are encouraged to schedule meetings when more time is needed to discuss their child's progress in school.

✓ In conference reports, teachers provide curricular sketches describing classroom activities. Parents are expected to read these.

How do parents learn about how, and what, their child is doing?

✓ Parents participate in the goal-setting conference. At the start of each school year, students meet with parents and teachers to set academic, social and personal goals for themselves and discuss the goals that parents and teachers suggest.

✓ Parents participate in the goal-feedback conference at the end of the school year as students reflect back on the year. At this conference, students also complete forms to evaluate specific social and academic skills.

✓ Parents attend parent-teacher conferences. We consider parents to be partners in the education of their children. The twice-yearly conference is an important time for both teachers and parents to share detailed information about student progress.

✓ Teachers prepare written conference reports. In the fall conference report, parents gain insight into their children as learners (observations about organizational skills, attitude, learning style, and work habits) and the student as a member of the school community (group skills and responsibility to self and others). Additionally, the winter conference reports provide feedback specific to the talents and challenges of each student in the areas of math, language arts, science, social studies, art, music, physical education, and Spanish.

✓ Students include work samples, unit reflections, check-in sheets, and other documentation relevant to their learning in portfolios, which they share during conferences.

What is the parent's role in a child's education at Wingra? How can they best support their child's learning?

✓ Express interest in, support of, and confidence in your child.

✓ Express interest in, support of, and confidence in your child's learning.

✓ Express interest in, support of, and confidence in your child's school and teachers.

✓ Let teachers know when you have concerns about your child's learning and experiences at school.

✓ Recognize and celebrate your child's accomplishments and important milestones.

✓ Read the information available to you about your child's life at school. Have conversations about this information and your own day.

✓ Model enthusiastic pursuit of interests and life-long learning.

✓ Spend time with your children with no agenda other than to enjoy their company and follow their enthusiasms.

✓ Enforce a regular bed time.

✓ Have dinner with your child and whole family at the table without electronics (or reading!) at least three times a week.

✓ Volunteer to drive on field trips.

✓ Share your interests, expertise and resources with Wingra classrooms.

✓ Set aside time each night for your child to do school work or to read.

✓ Monitor your children's phone, email, and other electronic correspondence.

✓ Help your child determine when to begin using deodorant; establish good oral hygiene routines.

✓ Be informed about progressive education, especially Wingra School's program and curriculum.

Curriculum Matrix

This matrix illustrates our curriculum across age levels and areas of study. Although this document delineates subject area and age level, Wingra students engage with these topics through rich integrated thematic units that vary from year to year. It is a living document that represents our child-centered, responsive curriculum as it adjusts to student needs, unique interests, and current events to make the most of each learning moment.

For an interactive format and more information including curriculum in other levels, sample projects, highlights, and resources, please visit the Wingra School Website at www.wingraschool.org.

Art in the Sky

Philosophy statement

Young adolescents are prepared to cultivate their visual literacy and the develop their own personal visual language as a means of communication. Sky students explore, experience, and gain insight on art's effects on cognitive, personal, and social development personally, as an individual within a community, and as a part of the greater world. With exposure to world arts, an increased amount of personal choice, and continued practice in a variety of media, kids are cultivating a lifelong appreciation for the arts, as well as the skills and confidence to solve problems creatively, both inside and outside of the studio.

Understanding Goals

How have I used visual art to show elements of myself? Who am I as an artist? How can I grow as a visual communicator using different media? Is there a medium I avoid? Where do I shine? What is the first thing others see in my work, and does it make me happy? What type of support do I need in my artistic growth? What do I most love to share with classmates, and why?

What techniques and skills have I developed? What explorations am I ready to take on next? What does art mean to me? Who is art for? What design principles can I use as a framework to express myself visually? What factors distinguish artistic styles? What is the role of an artist in American society? What is the role of artists in cultures around the world? How do artists convey meaning through forms, media and symbols?

Can I approach this project with "outside of the box" thinking? What ideas are connected and expressed in works of art? How can I create the illusion of depth in two-dimensional works of art? In what ways are two and three dimensional art works alike and different? Has art been changed by technology? Can art be persuasive? What principles of design are evident in this work of art? Does media influence meaning? What art vocabulary can I use to describe works of art? In what ways does a work of art evolve as it's made, and how do I decide when it's completed?

In what ways is my sense of self-identity changing? Is this represented in my art? How do people interpret messages in art at different times of their life? Can messages of art be interpreted differently among different cultures? What does art convey about culture? Is the perception and interpretation of art filtered by the viewer? Is art a reflection of a historical period or event? What is my artistic problem solving style? Who is the target audience for specific works of

art? Can art represent complex contradictions? What abstract concepts can I incorporate into my art? What kinds of art do I appreciate?

Key Concepts

Think deeply. Assess the world and ask questions about the significance of art in the world and in history. Gain an appreciation of the contributions of artists to society, and have a concrete understanding of art's timeline, from prehistoric to contemporary. Utilize principles and elements of art to produce work that demonstrates skills in drawing, painting, sculpture, printmaking and ceramics.

Solve design problems and resolve communication issues. Use fantasy as a means of expression in works of art. Identify the relationship between art processes and finishing solutions. Utilize inquiry skills and appropriate art vocabulary for describing, responding to, interpreting and evaluating works of art.

Recognize, distinguish and appreciate art and cultural influences of different cultures and historical periods. Analyze, compare, interpret, and evaluate their own art, art of other students, and of well-known artists. Create and identify work based on critical social themes and visual culture. Develop aesthetic values and technical skills needed to perceive and interpret visual images in various media through realism and imagination. Build a sound foundation in the language of visual expression through learning and experiencing the art elements and principles of design. Apply the design process and creative problem solving to see connections beyond the art studio. Recognize, distinguish, and appreciate art and cultural influences of different cultures and historical periods.

Library in the Sky

Philosophy Statement

The Wingra Library recognizes and supports Sky students as they use the library and its collection of young adult and multicultural literature to address their intensifying quest of identity and exploration of perspectives on the self and others. Many teens devour trilogies and series novels, especially in fantasy and dystopian genres, and appreciate fiction and nonfiction choices that involve social issues. They enjoy word play, double meanings, sophisticated jokes, and peer vocabulary (slang). The library literacy program supports Sky students' joy of conversation by using peer conferencing and small group writing groups. Students at this level are quite well read and skillfully discuss plot, character, mood, setting, and theme with peers in small literature groups. In their reading and writing, current issues and events (racism, poverty, environment, injustice) often take precedence. Many take pride in their skillful use of descriptive language, dialogue, sophisticated vocabulary, and proper mechanics. Students in the Sky are able to do research from several sources and often are able to structure their writing with thesis statements and supporting details.

Understanding Goals

Why – and how – do we tell stories? Why did the author tell this story? What can I learn about myself and others from this story? How do "fantasy" and "make believe" teach "real-world" messages? How can symbol and metaphor deepen an author's message? How do bias and context affect an author's point of view? What is the root of those biases? How is language a tool to look at our own culture and thinking? What is the power of poetry? How do I recognize and discuss themes in the books I read? What do I find provocative and profound in the world of text? Who am I and what do I have to say? What is my writing process? What impact does my audience have on my purpose when I create? How do I share

my voice to stand up with courage and respect? How can I use mentor texts to develop my own creative voice in my writing? How can stream of consciousness writing help me develop ideas? How do I write an effective essay? How do I organize my research to write a solid research report? What do I have to say as a critical reader?

Key Concepts
Listening/Speaking: Identify major themes in literature. Describe ideas and opinions with clarity in classroom discussion. Argue effectively and civilly for your personal point of view. Respond with useful feedback to peers' writing and ideas. Speak and listen with focus and consideration, participate in the creation of a positive learning environment. Participate in student literature groups, share reactions and opinions about literature with peers. Describe ideas and opinions with clarity in classroom discussion.

Reading: Recognize "just right" books and finds time to read every day from a wide variety of young adult and transitional novels and memoirs. Read independently, consistently, joyfully, accountability, and fluently. Expand personal reading territories and read critically. Relate literature to personal experience, other works and world events. Thoughtfully interpret and respond to literature. Share personal opinions of literature, and make effective recommendations to peers. Identify and discuss perspectives and elements of social justice and injustice in literature. Recognize and locate pertinent facts and quotations for different purposes. Interpret facts, structures, and styles in literature. Discover themes about the human experience that authors weave into literature.

Writing: Recall and use previously taught writing structures and conventions. Use an effective "writing process" to fully develop writing with clear organization and sufficient detail. Use mentor texts as models for writing. Rearrange early drafts to fully elaborate ideas in effective revision. Respond with specific and useful feedback to peers' writing and ideas. Craft and deepen personal voice in writing and speech. Explain the "why" and "how" underneath personal concepts and claims in nonfiction writing. Develop strong opinions and claims, based on evidence. Reflect on personal progress to self-assess and guide future choices. Discover personal reasons to create and finish original pieces of writing.

Music in the Sky

Philosophy Statement
The music curriculum for Sky students covers a wide range of fields. Our Skyers investigate the physical properties of sound and instruments; experience the interaction of tones in harmony and polyphony; explore the connections between music, emotions, identity, society, struggles, resistance, and culture; and express themselves through musical creations and participation in collaborative ensembles. They critically examine multiple aspects of music, from notation to consumption, and they are guided as they pursue their personal musical interests as informed listeners, fans, composers, performers, writers, and readers.
Instruments available for the students include pianos, keyboards, recorders, guitars, ukuleles, lap-harps, computers with recording and notation software, pitched and non-pitched percussion, electronic drum set, and more.

Understanding Goals
What does music mean to me? What is sound? What is harmony? What are musical intervals? What are dissonances and consonances? What is tonality? How do I express myself in a musical composition? How can music notation help me communicate musical ideas with others? How has music changed throughout history? How does music represent a

culture or a place? What does it mean to be a fan? How do I feel about the division of musical works into genres? What roles does music play in society?

Key Concepts

Fundamentals of sound: Explore the physical and auditory nature of pitch, timbre, duration, and dynamics.

Harmony: Combine notes to create consonance and dissonance intervals, chords, and polyphony.

Composition and notation: Prepare, revise, perform and record original music using hand-written and typed notation.

Music critique: Describe music and respond to it meaningfully.

Music and society: Investigate the role of music in places around the world, through cultural, economic and political lenses.

Music and me: Dissect my own musicality and the music I like, and finding out what music means to me.

Spanish in the Sky

Philosophy Statement

Sky Spanish reflects best practices in both world language and progressive education in a variety of ways. Students are exposed to large amounts of rich comprehensible input in Spanish – spoken language made accessible by careful word choice, repetition, gestures, and visuals – to strengthen their ear for the language. The language ear is an intuitive understanding of the inherent patterns, sounds and procedures in a language, an invaluable base for all further study. They have ample opportunity to work individually and in small groups, following their personal work rhythms as well as collaborating on tasks. Games, drama, music and illustration all play an integral role in bringing the language to life and activating all learning pathways. As much as possible, student interests inform the topics and approach to study.

Social justice concepts guide Sky Spanish work in multiple ways. Sky students are regularly exposed to other cultures, their traditions and ways of life through books, music, videos and artifacts. They are encouraged to practice interest, respect and open minds in exploring these cultures and comparing them to their own. They discuss stereotypes such as "all Spanish-speaking cultures are the same" and examine different perspectives on cultural practices. They also learn about historical and contemporary figures such as Victor Jara who worked to stop unfairness and make a difference. The classroom community embodies social justice as all members treat one another with fairness and support one another in "giving it a try," not being critical of someone they might see as less skilled. Work is evaluated based on individually chosen goals and the continuum of language acquisition, rather than a quantitative system, and students meet one-on-one with the teacher to discuss progress and needs.

Understanding Goals

Why do we learn Spanish, and how can this apply to my own life goals? How can I understand, speak, read and write short stories in Spanish? What is my personal learning style for language (do I learn it best through listening, reading/writing, movement), and how can I use it to create an independent project related to my interests? What Spanish vocabulary can I use to communicate some complex ideas? What are some important social movements and political events that occurred or are taking place in Spanish-speaking countries?

Skills and Vocabulary

Read, write, listen, and speak in more established and polished ways. Engage in whole-group discussions and activities conducted in Spanish. Focus on core language skills, cultural knowledge, and games through rotating centers. Practice the imperfect and preterit conjugations of verbs. Pursue self-chosen independent projects such as writing stories in Spanish, researching cultures, or making maps. Explore countries and cultures chosen by the group and guided by their specific questions., with an eye to the key social movements and political events associated with them, during weekly Spanish morning meetings.

Selected Vocabulary: verbs, time, shopping/money, clothing, story vocabulary

Technology in the Sky

Philosophy Statement

Technology is fully integrated into the Sky curriculum. A weekly technology center, aligned with their thematically based unit projects. Sky students learn about different presentation methods such as Powerpoint, Prezi, infographics, or Google Slides and analyze the differences between the multiple programs. We think carefully about how to synthesize presentations, share information, and make purposeful graphic choices. Photography use and and understanding of creative commons and fair use licenses is important. Skyers learn how to dig into digital resources such as scholarly articles, newspaper archives, and general internet searches. They will also take care to cite each resource to give credit to its source.

Students in the Sky level create and edit video and photography. Focus is given to plot development and how to portray characters from the director's and audience perspective. They create public service announcements for a cause of their choice. By giving students a choice, they are able to explore their interests and communicate their passions to their peers. Skyers are challenged to be aware of their environment and how advertisements and marketers profile their interests and lifestyles. Social media and similar websites are also critiqued for their profiling, safety, and responsible use.

Sky students use computer programming and game design to develop games that are peer reviewed by their classmates. Students learn the technical aspects of files and sharing to be efficient and knowledgeable about their choices. Every year, Sky students contribute self-selected artifacts to their e-portfolio that is shared with teachers and parents of students. Through this medium they upload documents and discuss why they made their selections. Social justice and digital citizenship is addressed throughout the year within meaningful and timely contexts related to current events and student experiences. Sky students learn to identify their own online presence and develop empathy and compassion for others in the expanding network that the internet provides.

Understanding Goals

What pictures am I allowed to use for my presentation? How do I properly cite my research paper? How can I more efficiently search Google for my research project? How do I search an electronic database for local information? How do I make an infographic? What information should I include in my visual presentation? How can I improve this program to reach more people? What design elements are put into this game? Why did the game designer add those obstacles? How do I add a visual effect to my video to make it look dark and mysterious? If I film from a different view point, does it change how my viewers respond to my story line? Does a file extension change my file in any way? How do I change the name of a file that I've uploaded to my website? Can I share my document with my classmate so that we can

collaborate together? Why do ads show up on the side of my website? Are the ads in my favorite magazine put there for a reason?

Key Concepts

Creativity and Innovation: Apply filming and lighting techniques while planning, directing, and acting in video projects. Create and design personal websites to advertise accomplishments and personality. Design interactive multimedia presentations using text, images, audio, and video to convey curriculum concepts. Edit photographs to depict meaning or emotion. Produce short animations integrating classroom content.

Communication and Collaboration: Use a variety of media that may include text, graphics, scanned images, and sound. Engage and collaborate with others via cloud-based documents. Work in small groups to plan and create on technology projects. Asks questions and give feedback to other students and staff.

Research and Information Fluency: Use appropriate search engines to search for information. Apply advanced search techniques such as Boolean operators to search for information. Adjust search filters online and in the library database to narrow down a search query. Develop strategies for evaluating sources. Continue to seek out and record information from online sources. Consistently cite information and image sources used during research.

Critical Thinking, Problem-Solving, and Decision-Making: Analyze other students work, give feedback, and make constructive criticisms. Listen to other's constructive criticism and adapt projects based on feedback. Use design principles when developing presentations. Troubleshoot technical issues when they arise.

Digital Citizenship: Respect the privacy of each other's work and accounts. Use resources in a manner that is safe, mindful or acceptable student conduct. Examine the digital world and it's effects on human wellbeing and wellness.

Technology Operation and Concepts: Inserts hyperlinks into documents and webpages. Print documents for school use. Integrate two or more programs for school projects. Use file management techniques (organize, rename and delete files).

Characteristics of Adolescent Development

Excerpts from This We Believe: Keys to Educating Young Adolescents, Position Paper of the National Middle School Association, 4ᵗʰ Edition, 2010. With permission.

Early adolescence is a distinct period of human growth and development situated between childhood and adolescence. During this remarkable stage of the life cycle, young adolescents (10- to 15-year-olds) experience rapid and significant developmental change. Recognizing and understanding the unique developmental characteristics (traits associated with human growth) of early adolescence and their relationship to the educational program (i.e., curriculum, instruction, and assessment) and to the structure of the middle school (e.g., flexible block scheduling, advisory programs, and team teaching) are central tenets of middle grades education.

Implications for Practice

Physical Development

Practitioners and parents need to recognize that physical developmental characteristics may affect young adolescents' emotional/psychological and social development. Teachers and guidance counselors can mitigate young adolescents' concerns about physical development by explaining that these changes are natural and common (Van Hoose, Strahan, & L'Esperance, 2001; Wiles & Bondi, 2001; Wiles, Bondi, & Wiles, 2006). They can present accurate information, respond to questions, and encourage young adolescents to consult credible resources (Scales, 2003). Schools should provide health and science curricula that explicate physical changes (Kellough & Kellough, 2008) and other educational programs that encourage sound nutrition, sufficient exercise, and healthy lifestyles.

Correspondingly, schools need to ensure that young adolescents have access to plenty of water and nutritious food during the school day. Appropriate instruction concerning the risks of alcohol and drug use, teenage pregnancy, and sexually transmitted diseases needs to be made available. Due to fluctuations in basal metabolism, young adolescents will also need opportunities for physical movement as well as periods of rest (George & Alexander, 1993). Teachers need to recall that preoccupation with body image and self-consciousness may lead some young adolescents to avoid physical activity (Milgram, 1992). When planning activities that require physical movement, teachers need to minimize situations that promote competition and possible comparisons between early- and late-maturing youth. In addition, teachers need to arrange young adolescents' participation in an array of hands-on learning experiences (Kellough & Kellough, 2003) including simulations and service learning.

Intellectual Development

Teachers need to consider the varying intellectual developmental differences of young adolescents when planning learning experiences. To address this diversity, teachers need to provide a wide variety of educational approaches and materials that are appropriate for their students' varied cognitive abilities. While concrete thinkers require more structured learning experiences, abstract thinkers need more challenging activities (Manning & Butcher, 2005). Young adolescents need teachers who understand and know how they think (Stevenson, 2002). Teachers need to plan curricula around real-world concepts (Kellough & Kellough, 2008) and supply authentic educational

activities (e.g., experimentation, analysis and synthesis of data) that are meaningful for young adolescents (Scales, 2003). To foster intellectual development, these youth need to interact directly with their world–through discourse with peers and adults and hands-on experience (Stevenson).

Further, schools need to recognize young adolescents' changing interests and ensure that they have opportunities for exploration throughout their educational program (Manning & Butcher). Teachers can also provide forums for this age group to explore the reasons for school, home, and societal rules. Serving as adult role models, teachers help young adolescents to connect intellectual and moral reasoning by teaching through example.

Moral/Ethical Development

Teachers need to recognize and capitalize on the relationship between young adolescents' intellectual development and their moral reasoning (Scales, 2003). They need to plan instructional experiences that foster higher order thinking skills and higher levels of moral reasoning. For example, teachers can include assignments that guide students to articulate their thoughts and feelings in writing (Scales). Young adolescents need opportunities to examine options of behavior as well as the consequences of these options (Kellough & Kellough, 2008). In the same vein, teachers need to plan experiences for this age group to contemplate moral/ethical dilemmas (Scales) and consider possible responses. This can help students to develop values, resolve problems, and set their own standards of behavior (Kellough & Kellough). Teachers can also incorporate scenarios that prompt young adolescents to explore concepts of fairness, justice, and equity (Scales). Additionally, schools need to include programs and curricula that address societal issues such as racism, sexism, and discrimination (Scales).

Emotional/Psychological Development

Schools and teachers need to support young adolescents' quest for identity formation through curricular experiences, organization structures, instructional approaches, and opportunities for exploration…Young adolescents need opportunities to form relationships with adults who understand them and who are willing to support their development. Educational as well as advisory programs and practices can promote an atmosphere of friendliness, concern, and group cohesiveness (Kellough & Kellough, 2008). Moreover, teachers can acknowledge the importance of friendships and help students to understand that shifting allegiances are normal (Scales, 2003). Teachers can explain to young adolescents how self-esteem affects nearly all aspects of their development and provide experiences that build students' self-esteem. Young adolescents need environments that are free from harsh criticism, humiliation, and sarcasm. With regard to emotional development, young adolescents need opportunities that allow them to play out their emotions as well as promote self-assessment. Teachers can provide educational experiences such as role-playing, drama, and reading that permit young adolescents to understand that their problems are not unique (Kellough & Kellough).

Social Development

Because of young adolescents' strong need for affiliation, they need opportunities to form positive and healthy relationships with peers. Teachers must recognize the importance of friendship and peer relationships (Scales, 2003) and provide opportunities for peer interactions (Kellough & Kellough, 2008). In addition, teachers need to be aware that adults compete for young adolescents' attention, so their interactions with these youth need to be positive and constructive (Scales). Schools need to provide young adolescents with experiences that promote

freedom and independence within a safe space… Teachers also need to develop cooperative learning activities and collaborative experiences in which young adolescents can interact productively with peers (Scales).

Conclusion

Young adolescents deserve educational experiences and schools that are organized to address their unique physical, intellectual, emotional/psychological, moral/ethical, and social developmental characteristics and needs. Practitioners, parents, and others who work with young adolescents need to be aware of any changes–subtle or obvious–in developmental characteristics. Such changes may give adults insights into the challenges facing young adolescents and elucidate possible reasons for shifts in young adolescents' ability and behavior.

Educators who were influential in the development of the middle school (e.g., John Lounsbury, Donald Eichhorn, William Alexander, and Gordon Vars) were insistent that the developmental needs of young adolescents influence the educational environment and organizational structure of the middle school. This desire to be "developmentally appropriate" was what set the middle school apart from its predecessor, the junior high. While educators and policymakers have attempted to implement restructuring and reform initiatives to provide young adolescents with more developmentally appropriate learning experiences and environments, much work remains.

Major Goals of Middle Level Educators

www.NMSA.org, This We Believe: Keys to Educating Young Adolescents, Position Paper of National Middle School Association, 4th Edition, 2010.

Excerpts from the Executive Summary

✓ Every day, millions of diverse, rapidly changing 10- to 15-year-olds make critical and complex life choices and form the attitudes, values, and dispositions that will direct their behavior as adults. They deserve an education that will enhance their healthy growth as lifelong learners, ethical and democratic citizens, and increasingly competent, self-sufficient individuals who are optimistic about the future and prepared to succeed in our ever-changing world.

✓ In This We Believe: Keys to Educating Young Adolescents, National Middle School Association describes the nature of an educational program that reflects what research and vast experience have demonstrated to be best for 10-to15-year-olds.

Major Goals of Middle Level Educators

To become a fully functioning, self-actualized person, each young adolescent should

✓ Become actively aware of the larger world, asking significant and relevant questions about that world and wrestling with big ideas and questions for which there may not be one right answer.

✓ Be able to think rationally and critically and express thoughts clearly.

✓ Read deeply to independently gather, assess, and interpret information from a variety of sources and read avidly for enjoyment and lifelong learning.

✓ Use digital tools to explore, communicate, and collaborate with the world and learn from the rich and varied resources available.

✓ Be a good steward of the earth and its resources and a wise and intelligent consumer of the wide array of goods and services available.

✓ Understand and use the major concepts, skills, and tools of inquiry in the areas of health and physical education, language arts, world languages, mathematics, natural and physical sciences, and the social sciences.

✓ Explore music, art, and careers, and recognize their importance to personal growth and learning.

✓ Develop his or her strengths, particular skills, talents, or interests and have an emerging understanding of his or her potential contributions to society and to personal fulfillment.

✓ Recognize, articulate, and make responsible, ethical decisions concerning his or her own health and wellness needs.

✓ Respect and value the diverse ways people look, speak, think, and act within the immediate community and around the world.

✓ Develop the interpersonal and social skills needed to learn, work, and play with others harmoniously and confidently.

✓ Assume responsibility for his or her own actions and be cognizant of and ready to accept obligations for the welfare of others.

✓ Understand local, national, and global civic responsibilities and demonstrate active citizenship through participation in endeavors that serve and benefit those larger communities.

Organizing the Middle School Curriculum

James A. Beane, www.nmsa.org/publications/webexclusive/organizing/tabid/651/default.aspx, April 25, 2011

Sources of Themes

Organizing centers for curriculum units are frequently referred to as "themes" and the term "thematic curriculum" is often used generically to describe any or all approaches beyond the separate subject one. In any given case, however, that term does not reveal the important matter of what the theme is or where it came from. In fact, educators seeking alternatives beyond the separate subject approach draw curriculum, organizing themes from a number of sources.

One source of themes is the existing subject curriculum. In this case, a topic already taught in one subject is opened up for consideration from the viewpoints of other subjects. Usually themes drawn from existing subjects involve historical periods like "Colonial Living" or the "Middle Ages," but others like "Metrics," "Technology," or "Myths and Legends" are also common. Themes selected from inside the existing curriculum often seem easier to use since they already have legitimacy in the curriculum as well as resources available for learning activities.

A second source of themes is major social issues or problems like "Conflict," "The Environment," "The Future," or "Prejudice." Social issues can be taken up on a variety of levels ranging from the local neighborhood to the global level. Although, such themes have traditionally been thought of as content for social studies course, they are more thoroughly studied and understood when approached using content and skills from a variety of disciplines.

The personal concerns of young people can serve as a third source of themes. These might include "Getting Along With Peers," "Living in our School," "Jobs and Careers," or "Who Am I?" Such themes offer space in the curriculum for students' personal agendas and can involve analysis through statistics, historical events, artistic representation, and other subject-related skills. However, a curriculum made up solely of themes based on personal concerns is inadequate to meet the school's obligation to bring issues from the larger world to student's attention.

A fourth source of themes might be called process concepts. Process concepts focus on relationships such as "Change," "Cycles," or "Systems." Such concepts make it easy to involve various subject areas since they are found in almost any area of living. However, because such processes apply to almost everything, they are often too ambiguous to offer students a clear context for their learning experiences.

A fifth source of themes might be called appealing topics. These might include topics supposedly popular with students, such as "Chocolate" or "Apples." Teachers who develop units around these themes often invent very engaging activities that students find interesting. However, it is not always clear to whom such themes offer the most appeal. For example, the popularity of thematic units on the 1960s may have more to do with the fact many teachers were in their own young adulthood in the 60s than with student interest in that decade. While units using "appealing" topics may contain significant educational content, publicizing the titles alone, without any explanation of what they involve, has sometimes led parents and others to believe that thematic units trivialize the curriculum.

Teachers who use multidisciplinary designs draw from all five sources depending upon which seems useful in correlating information and skills from different subjects at any given time. However, teachers who use curriculum integration designs [also] draw themes from social issues and personal concerns since they emerge from real-life issues, offer powerful, significant, and relevant contexts for learning, and offer possibilities for introducing students to democratic problem-solving and constructivist uses of knowledge.

Habits of Mind

Based on the work of Arthur L. Costa, Ed. D. and Bena Kallick, Ph.D

A Habit of Mind means knowing how to behave intelligently when you DON'T know the answer. It means having a disposition toward behaving intelligently when confronted with problems, the answers to which are not immediately known. The critical attribute of intelligent human beings is not only having information, but also knowing how to act on it. Employing Habits of Mind requires drawing forth certain patterns of intellectual behavior that produce powerful results. They are a composite of many skills, attitudes and proclivities including:

Value: Choosing to employ a pattern of intellectual behaviors rather than other, less productive patterns.

Inclination: Feeling the tendency toward employing a pattern of intellectual behaviors.

Sensitivity: Perceiving opportunities for, and appropriateness of employing the pattern of behavior.

Capability: Possessing the basic skills and capacities to carry through with the behaviors.

Commitment: Constantly striving to reflect on and improve performance of the pattern of intellectual behavior.

The sixteen Habits of Mind that we pursue, teach and support include:

Persisting

Thinking and communicating with clarity and precision

Managing impulsivity

Gathering data through all senses

Listening with understanding and empathy

Creating, imagining, innovating

Thinking flexibly

Responding with wonderment and awe

Thinking about thinking (metacognition)

Taking responsible risks

Striving for accuracy

Finding humor

Questioning and posing problems

Thinking interdependently

Applying past knowledge to new situations

Remaining open to continuous learning

Self-Editing Checklist

Review your work before you turn it in.

Title of Activity: _____

_____ The date, title of work or activity, your name are neatly written at the top of the page. (standard formatting)

_____ Your work is logically organized. Your response may include connections you make between what you have learned and other information you already know about; changes in your understanding about the subject; relevant questions that are developed from the subject matter; inspirations to learn more about the subject or related subjects.

_____ Answers to questions are written in complete sentences (unless otherwise noted, i.e. "list or notes"). Answers to specific questions clearly restate the question.

_____ Edit for proper use of conventions (spelling, punctuation and grammar) and make revisions to improve clarity and increase detail (unless otherwise stated).

_____ Your work is neatly laid out and completed in your best handwriting or word-processed.

_____ You have included, as appropriate, helpful tables, charts, graphs, and/or diagrams that are clearly labeled and titled.

_____ You have included proper citations for works referenced.

_____ You have reread the directions and made sure you followed all the steps and completed all parts of the work.

_____ You have attached the direction sheet to your response.

Consider:

_____ The quality of the overall appearance of your responses--**presentation** (neatness, handwriting, etc.)

_____ The overall quality of the **content** (ideas, information, questions). Did you dig deeper? Did you think about, ponder, ruminate over, reflect on the information?

Traveling Folder Instructions

Traveling Work Folders
Students have a conference with a teacher about every two weeks to check academic concepts and skills, quality of products, discuss organization strategies and social issues. The items that have recently been reviewed with the student are in this traveling folder for parents to look at and review with their child.

Please return all the products in this folder back to school so that we may keep them in the student's work folder for further assessment.

Directions
Parents take out the end-of-the-week letters and general information fliers to keep at home.
Sign or initial this form and date it please.

Make sure students return this folder with completed products so that we may make use of them for further assessment and portfolio construction.

If there is an item in the folder that you would like to keep, let us know and we can make a copy of it for the student work folder and you can have the original.

We will store all student products here in a student work folder. Students and parents are encouraged to take any or all products home when the student leaves Wingra School.

Check-in date and teacher initials, parent signature and date: