A.3 Program of Instruction

The instructional program that will be offered at BASIS Chandler K-6 (in grades K-4) uses a unique approach to classroom structure. There are two professional teachers with students during instruction. One of them is a Learning Expert Teacher (LET), with a background in Elementary Education. The other, the Subject Expert Teacher (SET), has a background in the specific subject they teach. All teachers, both LETs and SETs, are trained in the implementation of proven instructional methods throughout their tenure as BASIS teachers. Students in kindergarten and grades 5 and 6 use a slightly different arrangement detailed later in this section.

BASIS student assessments are developed at every level by using BASIS course content in conjunction with student learning objectives, as aligned with Bloom's Taxonomy of Educational Objectives. This assessment development occurs together with teacher input over the course of each year as teachers continually reevaluate the instructional methods used to help their students master primary, standards-based skills as well as the higher order thinking skills incorporated into the BASIS primary curriculum. Teachers are encouraged to engage in a wide variety of research-based, differentiated instruction, but BASIS teachers also have a significant amount of professional freedom. We believe this is a large part of what makes BASIS truly unique.

All teachers are provided a copy of *Teach Like a Champion* by Doug Lemov. The strategies highlighted in this text, when used consistently and as part of the overall BASIS program, have demonstrated repeated success, and during summer training, new teachers are coached on these strategies to ensure that they have sufficient tools when they enter the classroom. An observer of a BASIS class on any given day will see teachers checking for understanding by using student white boards, working one-on-one with students, using the Socratic method, and reviewing the prior night's homework. The diversity of methods employed by BASIS teachers is appropriate for the BASIS Chandler K-6 student population because it demands that teachers know where every student is as they progress through the course material.

This unique level of student/teacher engagement allows teachers to quickly identify students who are struggling and assist them in getting the extra support they may need to prevent them from falling behind. Teachers are encouraged to use whatever instructional methods they find effective in ensuring that students not only learn, but master the content of their course. Because state learning requirements are embedded throughout the BASIS curriculum, student course mastery will ensure that they meet the state standards.

BASIS K-6 Program

The BASIS K-6 program (specifically that of the K-4 grades) has been developed in order to help prepare students for the existing academically challenging Lower and Upper School programs (grades 5-12). However, the program focuses not only on academics, but behavioral expectations, collaborative learning skills, critical thinking, and organizational and study skills paramount to success in most all future pursuits. The BASIS curriculum for grades K-4 goes well beyond simply covering the required standards. Curriculum development involved the collaboration of veteran teachers in different content areas with deep subject knowledge and elementary education experts with diverse teaching experiences. Extensive research was conducted and each major topic within a course was spiraled throughout the grade levels to ensure topic mastery. Our curriculum is never considered complete, but is constantly being evaluated in order to provide the best possible education for our students.

Our academic rigor allows us to recruit experts in their fields; many of our K-4 teachers have a master's degree or PhD. However, we understand that, at these grade levels, experts in the art of teaching are just as vital to our success. For this reason, we have two teachers in each classroom: one, a content expert, and one, a learning expert. These professionals work together to find the best way to deliver lessons, ensure student engagement, and to create an environment where students will understand and retain information.

Courses are taught in integrated blocks. In **grades 1-4**, students take **humanities, math and science, Mandarin, PE,** and **fine arts**. Humanities class is taught each day for 90 minutes and consists of English/language arts, geography, and social studies topics. At each grade level, humanities students will be exposed to a broad world view instead of focusing exclusively on a limited perspective. All the while, students will develop and improve reading and writing skills. Teachers frame these critical skills as the vehicle through which students can learn and be exposed to the social sciences.

In grades 1-4, **math and science** are taught each day for 90 minutes as an integrated block where relevant connections between math and science are stressed. The use of manipulatives and hands-on approaches occur as much as possible, promoting a deeper understanding of topics while nurturing multiple learning styles including kinesthetic and tactile learning. Students will see that science and mathematics are used in everyday life, and they will develop critical thinking skills as they design experiments and practice mathematics skills. Similar to the relationship between English/language arts and the social sciences, teachers introduce math as the vehicle used to learn and practice science.

The **Mandarin** course is taught for 45 minutes each day in grades 1-4. Studies suggest that learning a second language aids in the development of certain cognitive skills.[1] Foreign language acquisition has been shown to improve critical thinking, increase creativity, and stimulate learning in many different subject areas. For most students, studying Mandarin involves learning a new syntax, which can help students better understand the various parts of languages and how these parts relate to each other. Mandarin class will integrate language development with the study of Chinese culture and history, allowing students to better appreciate other cultures as well as their own.

Physical Education is taught for 45 minutes each day in grades 1-4. PE class is a combination of traditional PE, Kenpo, and health education. Grades 1 and 2 will focus on body awareness and locomotor and non-locomotor skill development. These skills will be taught through game play and various activities. PE in grades 3 and 4 focuses on a variety of team and individual sports, encouraging fair play and good sportsmanship as well as setting and working towards personal goals. Physical activities during the school day, including those performed during PE class, can help students develop social skills, improve concentration throughout the day, and may help prevent childhood obesity and obesity associated diseases.

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[1] Bialystok, E. (2001) Bilingualism in development: Language, literacy, and cognition. Cambridge: Cambridge University Press.
Mechelli, A., Crinion, J.T., Noppeney, U., O'Doherty, J., Ashburner, J., Frackowiak, R., & Price, C.J. (2004). Structural plasticity in the bilingual brain. Nature, 431: 757.
Kovelman, I., Baker, S., & Petitto, L.A. (2006). *Bilingual and monolingual brains compared: An fMRI study of a "neurological signature" of bilingualism.* Paper presented at the annual meeting of the Society for Neuroscience, October 14-18, Atlanta, GA.

The **fine arts** block consists of five separate subjects: visual arts, music, drama, art connections, and all-connections. The fine arts course block teaches students to develop critical thinking skills, diversity in expression, and to make meaningful cultural connections while emphasizing active participation, improvisation, performance, and creativity. The art connections class is an integrated class where students will explore music, theater, and the visual arts and make connections between themes and historical content. The experiences will be primarily tactile and kinesthetic, allowing students to be actively engaged in the discovery process. The all-connections class meets once per week for 90 minutes. In this class, students will make connections between various core courses in ways that are relevant to what they are learning each week. The all-connections class is a scenario-based problem solving and critical thinking class where students must solve problems using their newly developed skills and knowledge, along with prior experience. Students will also learn how to work collaboratively with others and how to voice their opinions in respectful and appropriate ways.

Aside from the five integrated course blocks, students in grades 1-4 also have a quiet reading block called **The Literacy Center (TLC)**. Students meet for TLC five days per week for 25 minutes. During this time, students read books from home or from our classroom libraries and answer comprehension questions regarding the story. Students also work on projects based on their readings and share what they have read about with classmates. While students are reading, the instructor will check to make sure students have their homework written down and that their supplies and backpacks are organized.

Kindergarten is set up slightly differently from grades 1-4. In kindergarten, there are four courses: PE, fine arts, basic knowledge acquisition (BKA), and mathematics. Because most all mathematics at this level involves basic math facts, the kindergarten math class is considered separate from science. Science topics are covered, in an integrated manner, during BKA. BKA also includes social studies and English/language arts topics. During this time, students will read and write about social studies and science, perform experiments, and discuss diverse cultures while developing vocabulary and language skills.

The goal behind our integrated course approach is to reinforce the logical connections that exist between different courses. We have found that integration of courses can increase topic retention and comprehension and improve critical thinking skills. Course integration can make abstract topics more relevant and concrete for students. Splitting courses very early in a child's education can cause confusion; students often have difficulty applying topics taught in one course to another course. Further, course integration can strengthen areas where students struggle by drawing on the areas in which students are strong.

BASIS Lower School (Grades 5-7)

BASIS has historically referred to grades 5 – 7 as the "Lower School". For the purposes of this application, we will be discussing only the curriculum of grades 5 and 6. However, it is important to note that these grades have been offered at BASIS schools for more than 10 years. The curriculum for grades 5 through 6 is consistent with the highest international academic standards and is designed to help students develop the academic and organizational skills that will prepare them for the demanding BASIS Upper School curriculum offered at BASIS Chandler and the other BASIS schools throughout Arizona. In a very real sense, the BASIS Lower School curriculum is the key to the success of the BASIS Upper School program. By introducing high-level content standards in lower grade levels, we ensure students are

exposed to these concepts early and often and have mastered the material by the time they enroll in Honors and AP-level courses.

The BASIS curriculum for grades 5 – 6 has undergone extensive review to ensure alignment with the Arizona College and Career Ready Standards, as well as the necessary review for AdvanceEd/College Board Accreditation. Through this process, BASIS has fully aligned all 5-6 curriculum to the relevant standards. BASIS Chandler K-6 will open as a fully accredited program meeting these stringent requirements.

Fifth graders take the following courses which cover the Arizona College and Career Ready Standards:

Physical Geography: This course develops an understanding of planet Earth, both the physical world and how it affects the people and cultures on it. It combines classical geography - the study of landforms, inhabitants, and maps - with Earth science concepts. Students will learn states and countries around the world, and be introduced to cultural geography topics including languages, religions, trade, populations, and natural resources. The Earth science portion of this course divides the Earth into "spheres" which are each a critical part of the Earth system. Students will learn characteristics and processes related to the Hydrosphere (water on Earth), Atmosphere (weather and climate), and Geosphere (geology). All areas will be taught to enhance the student's knowledge of basic scientific principles and serve as a foundation to future studies in Chemistry, Biology, and Physics.

Intro to Science: 5th Grade *Introduction to Science* is a survey course designed to prepare students for the intensive middle school science curriculum at BASIS. Students will study basic principles in Biology, Space Science, Chemistry, and Physics. This course teaches scientific skills and principles with a focus on observation and the scientific method. Skills practiced throughout the course include: critical thinking, data collection, data analysis, collaboration, and communication. Organization, note-taking skills, and good study habits are emphasized and necessary to be successful in this course.

Classics: The 5th grade Classics course prepares students for their future history courses at BASIS. Students will gain a thorough understanding of ancient history and the impact these civilizations have on society today. Topics of study include social structure, economics, settlement patterns, politics, religion and cultural aspects. A strong emphasis will be placed on Mesopotamian, Egyptian, Greek, and Roman civilizations and their contributions to our own culture in the United States. During the year, students will become familiar with primary and secondary sources, current events, map skills, chronological order, key vocabulary, note-taking, research techniques, and oral presentations.

Latin: This course is designed to introduce students to Latin language skills including vocabulary, grammar, etymology, and syntax. Particularly, students will establish a foundation for the study of English grammar and vocabulary, and for advanced learning in Latin and modern languages. Through learning the Latin language, students will explore Roman culture and history and its impact on modern languages and societies.

Math: ***Saxon Mathematics 8/7*** provides students with knowledge of general mathematics by practicing addition, subtraction, multiplication, and division of whole numbers, fractions, mixed numbers, decimals and negative numbers; as well as introducing them to pre-algebra concepts before entering 6th

grade. Geometric principles of area, perimeter, volume, and surface area are also practiced. Percentages and decimals are reinforced in word problems.

English: Fifth-grade English introduces students to the basic elements of reading, writing, grammar, and literary concepts, thereby preparing students for BASIS curricula in following years. It consists of five major components: **Conventions**, **Reading**, **Writing**, **Scholarship**, and **Reasoning**. Reading fluency and comprehension will be practiced through a variety of literature selections including poetry, short stories, and novels. The students will also seek to improve the rate and accuracy of their reading through a series of timed readings. Writing skills will be developed through the six fundamental traits of effective writing: Ideas, Organization, Voice, Word Choice, Fluency, and Mechanics/Grammar. Students will learn the basic steps required for writing a research paper as well as various styles of fiction and non-fiction writing. Students will benefit from peer editing and self-revision. The components of scholarship will include further developing the students' understanding of study skills, outlining, note-taking, and skimming for details. Students will practice their ability to think critically and articulate themselves when they read and write.

PE is a comprehensive program which combines traditional Physical Education with Martial Arts. Students will gain proficiency in this specific martial art while receiving instruction regarding proper form in stretching, cardiovascular conditioning, strength training, sparring drills, self-defense concepts, and skill building games.

Fine Arts: Students will develop their musical skills by singing and/or playing instruments, studying music history and theory, and practicing music literacy. With the aid of musical examples and in-class activities, students will be able to identify and evaluate melody, harmony, rhythm, dynamics, musical texture, and musical style. Students will practice basic music notation and theory concepts as they relate to the chosen repertoire and through aural and sight-singing exercises. In addition, students are required to attend live Classical concerts in order to reinforce the material presented in class. As a performance group, the students will perform concerts throughout the year. Selected repertoire for study and for performance will represent a variety of styles, genres, and levels of difficulty. In addition, students will participate in visual arts. The fifth grade art studio course focuses on production, criticism, aesthetics, art history and multi-cultural study. Students will create original art work through the use of various art techniques and the Elements and Principles of Design.

Sixth graders take the following courses:

History: This course is to introduce to students a holistic view of World history from the beginnings of human societies to roughly 1750 C.E. This course offers a balanced global coverage of Africa, the Americas, Asia, Europe, and Oceania. The focus is on five overreaching themes throughout the course as unifying threads to put what is particular about each period or society into a larger framework. Themes include: Interaction Between Humans and the Environment, Development and Interaction of Cultures, State-building, Expansion, and Conflict, Creation, Expansion, and Interaction of Economic Systems, and Development and Transformation of Social Structures. By the end of the course students should be able to accurately recall, analyze, and interpret information for the year end comprehensive exam.

Biology: Students will be introduced to the study of living things by starting with the most basic unit of life, the cell. The organization of cells, tissues, organs, and organ systems in complex organisms will be studied in the context of the human body. Biology I students will discover the anatomy and physiology of the organ systems that allow for movement, coordination, circulation, digestion, excretion, immunity, and reproduction. This knowledge is used to understand the importance of homeostasis in living things and what can happen when disease interferes with the functions of human organ systems. Throughout the course, students will develop note taking skills and the ability to analyze complex systems.

Chemistry: Students will study the basic principles of atomic structure, elements, compounds, molar quantities, and the periodic table. In addition, students are introduced to high school level concepts such as stoichiometry.

Physics: Students are introduced to the concepts and fundamentals of physical science. Students will develop a system for standard physical investigation by specifically designing models to represent physical situations. Topics will include measurement, forces, motion, electricity and magnetism, and gravitation. At the end of this course, students will be able to approach any system and use their knowledge of the physical world to separate and test the system appropriately.

Latin: 6th grade Latin is the continuation of the standard Latin sequence at BASIS. Students will create and deepen their understandings both of Latin vocabulary and Latin grammar and syntax. Emphasis will be placed on the fundamental elements of Latin translation via sentences and short reading passages. A key set of vocabulary words will become essential for students to memorize, although readings will necessarily go beyond that short list. This course develops student knowledge of the structures of Latin, Romance languages in general, as well as English, and so serves as either a solid stepping stone into the study of other languages or the next step upward in the study of the Latin language itself.

Math: The next progression in the math sequence is Saxon Pre-Algebra or Algebra ½. This includes concepts typical of this type of course and also topics from geometry, discrete mathematics, and probability and statistics. At the end of the course, students are well-versed in areas of: fractions, decimals, mixed numbers, positive and negative numbers, order of operations, percentages, proportions, ratios, divisibility, rounding, place value, unit conversions, scientific notation, and data representation, algebraic representation, and solving real world problems. Some students may be on a track to take Algebra 1 or Algebra 2 during the 6th grade.

English: Sixth grade English consists of five major components:
Conventions, Reading, Writing, Scholarship, and Thinking. This program is designed to build lifelong skills and an appreciation for written communication and learning in general. We place a great emphasis on language conventions. In sixth grade, students can expect to spend their English periods divided between grammar, punctuation, vocabulary, thinking skills, and instruction in reading and writing. In particular, students will learn how to engage in and make a habit of active and frequent reading by learning how to take effective reading notes and discuss texts in class. We will also focus on literature with the intent of sparking and developing imaginative thought in traditionally academic fields. Instruction in writing will focus on perfecting the student's ability to write effectively at the sentence and paragraph level. Finally, students will build on the foundational research skills developed in fifth grade. The course is designed to provide students with a solid foundation for future scholarship in all fields by ensuring that students have a strong grasp of the fundamental workings and effects of language.

PE is a comprehensive program which combines traditional Physical Education with Martial Arts. Students will gain proficiency in this specific martial art while receiving instruction regarding proper form in stretching, cardiovascular conditioning, strength training, sparring drills, self-defense concepts, and skill building games.

Fine Arts: Students select from Art 2-D, Art 3-D, Band, Strings, or Choir for their Fine Art elective.

Art 2-D: Art Studio 2D is designed to investigate and develop students' drawing and painting skills. Students will explore traditional and contemporary methods of art making incorporating various media. The course will focus heavily on the works of contemporary artists, but will reference art historical pieces. In addition, the class will follow thematic threads woven through time and cultures. This course is based upon individual expression, historical perspective and current trends as a vehicle of communication.

Art 3-D: Art Studio 3D is designed to investigate and develop students' 3-D art making skills. Students will explore traditional and contemporary methods of art making incorporating various media. The course will focus heavily on the works of contemporary artists, but will reference art historical pieces. In addition, the class will follow thematic threads woven through time and cultures. This course is based upon individual expression, historical perspective and current trends as a vehicle of communication.

Band: Band will provide woodwind, brass, and percussion musicians with challenging and varied repertoire while also studying music history and theory concepts. Students will work as an ensemble to continue developing their musical skills including posture, tone, technique, intonation, articulation, dynamics, blend, balance, expression, and overall musicianship. Music theory concepts to be studied include written theory, aural skills, sight singing, and composition. Music history will be explored through learning about composers and listening to major musical works from various style periods. Students will work to achieve musical goals as a group and as individuals building a foundation for future musical experiences, whether as a performer or an audience member.

Strings: Strings will provide violin, viola, cello, and string bass musicians with challenging and varied repertoire while also studying music history and theory concepts. Students will work as an ensemble to continue developing their musical skills including posture, tone, technique, intonation, articulation, dynamics, blend, balance, expression, and overall musicianship. Music theory concepts to be studied include written theory, aural skills, sight singing, and composition. Music history will be explored through learning about composers and listening to major musical works from various style periods. Students will work to achieve musical goals as a group and as individuals building a foundation for future musical experiences, whether as a performer or an audience member.

Choir: Choir will provide singers with challenging and varied repertoire while also studying music history and theory concepts. Students will work as an ensemble to continue developing their musical skills including proper vocal technique, posture, breathing, tone, intonation, diction, dynamics, expression, and overall musicianship. Music theory concepts to be studied include written theory, aural skills, sight singing, and composition. Music history will be explored through learning about composers and listening to major musical works from various style periods. Students will work to achieve musical goals as a group and as individuals, building a foundation for future musical experiences, whether as a performer or audience member.

BASIS Assessment Plan

External assessments are instrumental in benchmarking our students against state and national standards. These assessments include state-mandated assessments such as AIMS and its successor test. This new assessment will be a tool to measure student performance against the Arizona College and Career Ready Standards.

Monitoring student achievement at BASIS can begin before a student's first day of school and continues throughout their time at BASIS. Over the summer before school starts, the Head of School or Director of Academic Programs administers diagnostic tests to all 5th and 6th grade students in reading and math. Students in grades K-4 are tested in the same subjects using aimsweb® at the beginning of the school year. Data from this assessment is aggregated across all students by grade level to determine appropriate levels of intervention or advancement. Teachers can then use this data to align instruction to the students' needs.

Throughout the school year, teachers assess students and adjust the pacing of the curriculum based upon their results. Teachers use the aimsweb® reading assessment as well as assignments (homework and in-class work) to gauge student progress. If a teacher determines that an individual student is struggling, they alert the Director of Academic Programs.

The Director of Student Affairs and the Dean of Students track individual student progress, monitor and assess individual student discipline issues, and intervene when necessary. Besides working with students to develop study and organizational skills, the Director of Student Affairs and Dean of Students also coordinate a variety of options that can effectively meet the needs of each student. The Student Support program at BASIS is meaningful, comprehensive and timely, and it is designed to proactively identify and assist all student educational, emotional, and motivational needs.

Formative assessments, in general, are designed to reinforce and solidify student learning of the curriculum in each subject. Assessments are tailored to each subject, so that math quizzes might test fluency with a particular algorithm, while an English assessment could be an essay for students to practice new writing techniques. Assessments follow the BASIS educational framework in the sense that they: 1) are a valuable and productive use of students' time; 2) are presented with the expectation that it is ultimately the student's responsibility to learn the material; 3) reward students who have mastered effective study habits (encouraging students without these habits to seek out appropriate support, which is readily available); and 4) reward students who work hard to master the material.

Summative assessments provide a comprehensive picture of what students have learned over the course of the year. These assessments include course grades (as identified in course syllabus), aimsweb® results, AIMS/successor test scores (grades 3 and up), and pre-comprehensive (midterm) and comprehensive exam scores for grades 6-8. All of these assessments are critical in gauging the success of BASIS's academic program, and their results are thoroughly analyzed for patterns of weakness that can be taken into account when modifying and improving the curriculum for future years.

On summative assessments, each question ties back to a concept on the BASIS Bare Bones Syllabus for that subject. That syllabus, in turn, has been checked for alignment with the Arizona College and Career Ready Standards (AZCCRS) by a BASIS curriculum expert. Thus, a student who passes a BASIS summative assessment in a particular subject clearly will have mastered the AZCCRS for that subject. Students who

do not pass an assessment will know exactly which concepts they need to improve upon and which state standards include those specific concepts.