A.3 Program of Instruction

Pieceful Solutions will deliver a program of instruction of the highest quality while remaining individualized to the unique needs of each learner. In addition to providing instruction in the academic core content areas of Math, Reading, Science, Writing, Spelling and Social Studies, Pieceful Solutions believes that every child with autism requires intensive, language-based interventions to promote communication and to increase access to the academic curriculum. In addition to the research-based curriculum used at the school, Pieceful Solutions has had over 5 year of experience as a private school successfully educating students in the K-5 grade span.

The curriculum at Piceful Solutions Charter School will be aligned to Arizona State Standards in core areas. The curriculum team, consisting of the administrators and lead teachers at the school will prepare curriculum maps by grade level, which also contain implementation methodology and guidance, specific to the Pieceful Solution educational model for IEP/PEP modification. Teachers will prepare lesson plans weekly to the Assistant Director for review to ensure they are aligned with the Arizona Academic Standards and in keeping with the established curriculum maps, and IEP and PEP plans (due each Friday for the following week). The Assistant Director and Director will perform classroom observation to monitor that instruction is aligned to the lesson plans and standards.

Core Content Areas

English/Language Arts (ELA): Students will work on building language skills in the written form by using various strategies, such as:

The National Reading Panel (NRP) research concluded that reading instruction is complex. Children come to the classroom with different levels of preparation and skills. The NRP states that learning to read requires a combination of skills that includes phonemic awareness, phonics, fluency and reading comprehension skills. Pieceful Solutions Charter School will help children build a strong reading foundation that will grow year after year. The daily ELA lessons will address each of the five critical areas of reading: phonemic awareness, phonics; fluency; vocabulary and comprehension.

Specific materials will be used to teach the Arizona Academic Standards in ELA and will include:

- SRA Kaleidoscope, is designed to prevent struggling readers in Grades K-1 from falling behind and to bring Grades 2-8 students performing two or more years behind up to grade level. This effective, research-based program meets the Response to Intervention (RTI) requirements of the federal Individuals with Disabilities Education Act (IDEA). In addition, SRA Kaleidoscope provides targeted instruction in decoding, word study, dictation, grammar, mechanics, writing, and spelling.
- Reading A-Z – an online-based reading supplemental program with books and resources correlated to state and Common Core Standards. More than 1000 leveled books spanning across 27 level of difficulty in multiple genres and formats meet the unique needs of every student. It includes reading lessons, decodable books, reader's theater scripts, reading worksheets and assessments. The program includes fluency passages to improve reading rate, accuracy and expression; Teaches phonological awareness and phonics lessons. Has a myriad of resources such as flashcards, worksheets, vocabulary books, graphic organizers, word sorts and other vocabulary resources.
- Lindamood-Bell Learning –teachers at Pieceful Solutions Charter School will use the Lindamood-Bell Learning, a research-validated, process-based instructional program to strengthen reading, comprehension, and math skills by developing the sensory-cognitive functions that form the foundation of learning. The Lindamood-Bell programs have proven successful for individuals with a wide range of learning challenges, including previous, third-party diagnoses of learning disabilities such as dyslexia, hyperlexia, ADHD, CAPD, and autism spectrum disorders.
- Literature Studies - teachers at Pieceful Solutions Charter School will use literature studies, which in many cases will be cross-aligned with the Social Studies program in addition to the alignment to the Arizona ELA Standards. This kind of curriculum has been widely preferred by our private students as

they can read stories and novels of interest to them. We then use the literature to answer comprehension questions, learn vocabulary and increase fluency.

Math: Math skills will be built upon each year as the students move through the different grade levels at Pieceful Solutions. Proficiency in math is essential to academic success and fluency helps students make smart decisions in all aspects of life.

- Pieceful Solutions will utilize research-based programming such as **TouchMath** is a multisensory program that uses its signature TouchPoints to meet the needs of students of all abilities and learning styles. Students will learn math using hands on manipulatives, cooperative group learning and one-on-one direct instruction as appropriate. TouchMath has been proven to raise math test scores in classrooms around the world for over three decades. A growing body of independent, primary and secondary research continues to validate the fundamental principles of the TouchMath system and point to a common conclusion: TouchMath's multisensory approach and sequential strategy improve student math comprehension and mastery.[1]
- Students working at grade level will use **Singapore Math**. This system is designed to build a foundation of arithmetic theory into students that will position them for more advanced math. The way Singapore Math does this is by first introducing students to a few key concepts with concrete examples and pictures. Then, the student is led progressively and logically to understand the abstract concept. Singapore Math is a pleasing balance between drill and creative problem solving. Those who have compared Singapore Math with other math curriculum report that Singapore math moves the students more quickly and rationally toward abstract concepts. There is an emphasis on homework and practice, and an effective mix of word problems, drills and mental calculation. Instruction will be paced to the needs of each individual student.
- **SRA Math** is research-based math curriculum, designed to meet the needs of a wide variety of learners and will be used for supplemental and remedial purposes. SRA Math provides teacher-directed instruction on critical skills and concepts which struggling students often fail to grasp; addition, subtraction, multiplication, division, basic fractions, decimals and percents, ratios and equations. Students will learn math using hands on manipulatives, cooperative group learning and one-on-one direct instruction as appropriate. The series is often used for Response to Intervention remediation activities.
- **Project-Based Math** instruction at Pieceful Solutions Charter School will be supplemented with its own, privately created “Menu Math” application, which is designed to bring real life application to a myriad of math problems, thus bringing deep conceptual understanding of math. “Menu Math” is aligned with the Arizona Academic Standards in Math. “Menu Math” is part of the Life Skills curriculum, which includes cooking with Chef W. Teachers at Pieceful Solutions Charter School will use real life applications by using materials such as, newspapers, magazines, media and technology to gather information. They will also create an enriching environment for students by conducting frequent science experiments and projects based learning.

Social Studies: The Social Studies Program, including Science and the English Language Arts Program at Pieceful Solutions Charter School will be cross-aligned. Students will learn to seek information from a variety of sources and will be confident in their abilities to locate needed information. Students will learn geography, American history, world history and government and politics.

Science: In the area of science, students will learn about plants, animals and the human body. They will also explore the earth, astronomy and biology. We will use “World Alive”, a standards-aligned computer-based online program to teach a wide range of learners. Science units will include instruction

in Life Science, Physcial Science and Earth Science. Labs and activities will provide hands–on application of unit concepts in three types of activities—projects, explorations, and experiments.
Arts, Music, Karate and Yoga classes will supplement the regular curriculum at Pieceful Solutions Charter School:

- Art projects will be integrated across the curriculum as a means to visualize and bring to life abstract concepts being taught. Art projects are used to make the curriculum multimodality and accessible to learners with different skills and levels. Often, art projects are used to enhance the Language/Arts curriculum at the school. Specialized art projects allow children with high visual performance to create amazing displays of art.
- Music – students will have an opportunity to study and appreciate music as part of their program. The music therapy groups present activities that encourage participation in tasks that promote verbal and non-verbal communication, fine and gross motor movement, socialization and cognitive skills. Through the use of singing, instrument play, filling in blanks, call and response games, following directions, dancing, and using props, the groups have a lot of fun while interacting with their classmates.
- Karate and Yoga – students will have karate and yoga classes as part of their physical education program as well as to help with their overall gross motor and sensory system and improve their learning.
    - Yoga classes consist of breath work, yoga poses and use of affirmations. Games, props, books and music are used to make it fun and motivating. Each class is tailored to the age and developmental level of the children in the class with some classes having a more sensory motor focus and others geared more for improving strength, balance and confidence. Classes are adapted as needed so all students find success (the teacher is a certified yoga teacher and an occupational therapist).
    - Karate - This traditional Chinese Kenpo Karate class is designed to teach the kids self-defense, respect, coordination, build self-confidence, as well as an opportunity to improve physical fitness. An extra emphasis is made of the 'when' and 'where' using karate is appropriate. Class material includes: stances, punches, kicks, blocks, karate techniques, and kata. Students work on and practice for a "show" once a semester. The show is put on for their family members and friends.

Technology: Pieceful Solutions' program will provide opportunities for students by including 21st Century Skills. Student learning and growth will be facilitated by a high level of digital literacy. A computer lab will allow students to learn how to navigate the Internet, do research, and learn programs such as MSOffice, Excel and PowerPoint. Students will also learn typing fluency. iPads and Smart Board technology will facilitate the learning process for the lower-functioning students. Assistive technology such as Alpha Smart word-processing keyboards will be used.
Individualized Instruction: Pieceful Solutions will work with students with a wide variety of abilities. Based on our target population, we anticipate that most students will be working off of Individualized Education Plans (IEPs) that are specific to their needs. Students who are not on an IEP will also have customized education plans in the form of Personalized Education Plans (PEPs). Aside from education in the areas of English/Language Arts, Math and Social Studies/Science, learners with ASD also need programming to meet their needs in the areas of communication/social/emotional and daily living skills. Each of these skills will be aligned with a specific Academic Standard within the IEP.

- **Communication/Speech and Language:** Students at Pieceful Solutions Charter School will receive intensive instruction focusing on the use of language through either speaking, or through Augmentative and Alternative communication (AAC) such as voice-output devices or Picture

Exchange Communication System. Using the ABLLS assessment as a guide, each learner will have a unique language profile that will focus on their individual needs. The goal at AZACS will be for every student to have a functional communication system with the ability to respond at their highest potential in the following areas:

- Using language for different purposes, such as greeting , informing, demanding, promising, requesting ;
- Changing language according to the needs of a listener or situation, such as talking differently to a baby than to an adult, giving background information to an unfamiliar listener, speaking differently in a classroom than on a playground
- Following rules for conversations and storytelling, such as taking turns in conversation, introducing topics of conversation, staying on topic, rephrasing when misunderstood, how to use verbal and nonverbal signals, how close to stand to someone when speaking, how to use facial expressions and eye contact

- **Social/Emotional Skills:** Many individuals with high functioning autism and/or Asperger's display high levels of anxiety and exhibit challenging behaviors that can interfere with their ability to access educational content in a meaningful way. The areas of training detailed below are targeted to mitigate the primary deficits often seen in communication, appropriate behavior, play, and peer interaction. Skills include:
  - Active attention seeking/Eye contact/Facial expression; Conversation with others/Communication/ Speech Therapy ; Joining peers/ Attending to others /Cooperation/; Following rules; Social interaction/relationship development/ recognizing and expressing emotions; Group instruction - small pull-out groups as well as larger in classroom groups.
  - Ask for information and obtains attention of others; Appropriate play skills; Abstract thinking and figurative speech

  Pieceful Solutions Charter School will use the Program for the Education and Enrichment of Relational Skills (PEERS®) is an evidence-based social skills intervention program, which has been adapted to use in therapy sessions and classroom activities.
- **Daily Living Skills:** A core component of Pieceful Solutions' philosophy is that every student should reach their highest potential. For this reason, each student will receive instruction for the purpose of helping them become as independent as possible. Acquisition of self-help skills such as toileting, hand washing, and safety awareness are critical for students to be able to transition to less restricted environments with their typically developing peers and for students to be able to function in a classroom setting. Using observations, parent interview, and the ABLLS task analysis assessment to guide curriculum development, each student will have their own unique daily living program of instruction. Daily living skills include:
  - Dressing, Eating, Grooming, Toileting, Computer use, Safety skills, Motor, Gross motor and Fine motor skills

Program of instruction

To be able to execute the educational model, all teachers at Pieceful Solutions Charter School will be highly qualified in addition to being special education certified. All paraprofessionals will be highly qualified and will have substantial experience working with autistic students. All classrooms are staffed by a certified special education teacher and 3-4 instructional assistants. These educators were specially selected because of their unique qualifications, talent and patience in working with students with Asperger's syndrome/Autism Spectrum Disorder. Pieceful Solutions Charter School will use scientifically based teaching methodologies to deliver the proposed curriculum and help the students learn the necessary skills to be successful:

- **Multi-Grade/Multi-Age Classrooms:** Students with autism have various levels of functioning and academic abilities that don't necessarily correlate with age or grade level. For this reason, Pieceful Solutions Charter School will have multi-grade multi-age classrooms that will group students based on their needs and abilities. Such research-based ability grouping methodology is successfully used with other curricula offered in public and private settings (e.g. Montessori).
- **Direct Instruction:** Direct instruction is a systematic way of planning, communicating, and delivering in the classroom. Teachers provide explicit, systematic instruction based on scripted lesson plans. Direct Instruction includes features which support the other instructional elements, such as the ability grouping through the multi-age multi-grade classroom. Students are grouped and re-grouped based on their rate of progress through the program. Frequent assessment is imbedded in direct instruction where curriculum-based assessments help place students in ability groups and identify students who require additional intervention.
- **Cooperative Learning Groups:** Students of different abilities will work together in small groups of 2-5 children. They will be taught to learn from one another and share ideas and responsibilities. They will work through an assignment until all team members are able to successfully understand and complete it.
- **Differentiated Instruction:** All students learn differently. Using differentiated instruction teachers will take the time to understand the different learning styles of all of the students and will constantly modify instruction to ensure all students have the ability to learn effectively in the classroom.
- **Scaffolding/Shaping**: Students will be given support through a variety of different modes (modeling, prompting, guided notes, outlines, visual cues) so that they are able to be successful. Over time, these supports will be systematically faded in and out as necessary to guide students towards independence with a specific skill.
- **Discrete Trial Training**: Involves breaking a skill down into short simple trials. Students are taught to respond to a particular stimulus and are provided with prompting in order to be successful. Reinforcement is used to motivate students to complete the trials successfully.
- **Video Modeling**: Video Modeling is a form of observational learning in which desired behaviors are learned by watching a video demonstration and then imitating of the behavior of the model.
- **Relationship Development Intervention (RDI):** According to their website, RDI's six objectives are: 1) Emotional referencing: The ability to learn from the emotional and subjective experiences of others; 2) Social coordination: The ability to observe and control behavior to successfully participate in social relationships; 3) Declarative language: The ability to use language and non-verbal communication to express curiosity, invite interactions, share perceptions and feelings and coordinate with others; 4) Flexible thinking: The ability to adapt and alter plans as circumstances change; 5) Relational information processing: The ability to put things into context and solve problems that lack clear cut solutions; 6) Foresight and hindsight: The ability to anticipate future possibilities based on past experiences. Language is incorporated into these interactions to not only increase social awareness but needed vocabulary in daily living/academic skills.
- **Floortime Approach:** The Floortime approach is based on emotion and takes the child's lead or motivation and incorporates that into social interaction and learning academics. In the academic setting, this emotional connection can be included to teach functional skills, educational skills, and increase language skills.
- **Augmentative and Alternative Communication (AAC):** According to ASHA, "Augmentative and alternative communication (AAC) includes all forms of communication (other than oral speech) that are used to express thoughts, needs, wants, and ideas. We all use AAC when we make facial

expressions or gestures, use symbols or pictures, or write. People with severe speech or language problems rely on AAC to supplement existing speech or replace speech that is not functional. Special augmentative aids, such as picture and symbol communication boards and electronic devices, are available to help students express themselves. This may increase social interaction, school performance, and feelings of self-worth. Other forms of AAC that are used include Picture Exchange Communication system (PECS), visual communication books, sign language, and total communication.

- **The Natural Aided Language (NAL)** technique is used to teach the AAC user vocabulary throughout the academic day and during social interactions. NAL is a stimulation approach in which the facilitator points out picture symbols on the child's communication display in conjunction with all ongoing language stimulation. AAC users learn language the same way they see language which is in symbols. This approach helps AAC users learn vocabulary and language use to be an independent communicator.
- **Speech Therapy –**Therapy is provided based on each child's Individual Education Plan (IEP). Therapy is provided both in small pull-out groups as well as larger in classroom groups. Therapy approaches included literacy-based themes, augmentative and alternative communication, Relationship Development Interaction activities, and positive behavioral techniques. The Speech-Language Pathologist works closely with the classroom teachers to follow themes and activities done in the classroom to provide the most opportunity to use their language skills.
- **Errorless Teaching**: Errorless teaching is an instructional strategy that ensures children always respond correctly. As each skill is taught, children are provided with a prompt or cue immediately following an instruction. The immediate prompt prevents any chance for incorrect responses. Unlike other teaching procedures where opportunities for initial mistakes are allowed and then corrected through prompting, errorless learning's immediate prompting ensures that a child may only respond correctly. Prompts are systematically removed until children are able to respond correctly on their own.
- **Task Analysis:** Tasks Analyses are used to teach a student to perform a skill that has many different steps. It is a process of analyzing and articulating the kind of learning that you expect the learners to know how to perform. Instructional designers perform a task analysis in order to:
    - Determine the instructional goals and objectives; Define and describe in detail the tasks and sub-tasks that the student will perform; Specify the knowledge type (declarative, structural, and procedural knowledge) that characterize a job or task; Select learning outcomes that are appropriate for instructional development; Prioritize and sequence tasks; Determine instructional activities and strategies that foster learning; Select appropriate media and learning environments; and Construct performance assessments and evaluation
- **Anxiety Reducing Strategies:** Strategies are used within the classroom to help reduce anxiety and build confidence, such as consistent schedules, reduced auditory and visual stimuli, simplified directions and modified assignments help these students cope and learn. Students are comforted by being with other peers like themselves. Those who struggled making and keeping friends in general education make many friends in their own classroom. The students then gain the confidence and skills needed to generalize and be with their non-disabled peers. The classrooms' physical set up is modeled after a typical regular education classroom, with the exception of areas for sensory and a place to calm down, or take a break, when needed.
- **Sensory Integration:** Sensory integration plays a crucial role in the regulation of each student's sensory system to allow them to learn better. Sensory integration is the process by which the brain organizes and interprets sensory experiences such as touch, movement, body awareness, sight, and

sound. It is sensory integration that provides a crucial foundation for more complex learning and behavior. Students can choose to jump on the trampoline, take a walk, listen to music, wear a weighted vest or utilize other activities to get sensory input. Lights are kept low and natural lighting is used as much as possible. Noise cancelling head phones are available for those with auditory sensitivity. Students may sit on yoga balls or "sit discs" while working.

- **Hands-On Project-Based Methods:** Hands-On Project-Based Methods with tangible hands-on materials will be applied to relate the curriculum and standards to real life and make them functional.
  - **Fine Motor Skills:** Our curriculum uses hands-on, educationally sound instructional methods to teach handwriting. Children who have autism and are high functioning tend to relate well to tangible hands-on materials. Students will work on strengthening their fine motor skills and improving their hand writing. This is done throughout the day during all academics. Special lined paper can be used to help with word and line spacing as well as pencil grips to aid in appropriate grasp. **Handwriting Without Tears®** is a proven success in making legible and fluent handwriting an easy and automatic skill for students.
  - **Gross Motor Skills/Physical Education:** Students have the opportunity to attend recess daily where they play unstructured activities with peers on the playground equipment. They also have planned structured games such as kickball, basketball and tag.
- **Technology and Assistive Technology** – Computers in a computer lab, laptops, iPads, Alpha Smart keyboards, Smart Boards will be used to access online curriculum resources, as well as act as assistive technology to aid in the learning of various skills.

Initial Assessments:

All students at Pieceful Solutions Charter School will be assessed upon entering the school to determine appropriate classroom placement and ability level. This comprehensive Initial Assessment and will include: Careful study of the student's IEP, Previous progress reports, Previous AIMS or AIMS-A results, MET reports, IQ score, Brigance's score for grade equivalency, Curriculum level placement tests (e.g. Singapore Math Placement Test), AIMS Web tests, ABLLS diagnostic and testing instruments for determining academic skills and cognitive levels for students on the autism spectrum, Functional Behavior Assessment (FBA) will be used when needed. These Initial Assessments will give teachers and executive staff a great picture of students' abilities and what individualized programs of instructions need to be created for them to move them to the next level. Scores on the AIMS or AIMS-A tests will also be compared to the Arizona Academic Standards in Math and ELA Standards to further help identify individual goals for students who are testing below the appropriate grade level for their age.

Formative Assessments

Formative assessments will be an indispensable portion of the learning process. They will be intensive and data driven to ensure teacher effectiveness and student learning. Formative assessments will consist of teacher prepared pre and post tests, pre and post tests available through the reading and math curriculum, formal and in-formal observations and self-evaluations. AIMS Web will also be used as a formative assessment tool.

Teachers will create data sheets based on the student's IEP's, which will also reflect the student's achievement levels. The Data Sheets will be used for accountability – to record and report even the slightest student progress, and for consistency purposes – so that information is consistent between the teaching team working with the child.

The Data Sheet will have a chart for each IEP or PEP goal and teachers and support staff will fill it in throughout the day. This data sheet will follow the student throughout the school so that data can be collected across all environments, not just the classroom. This data sheet will follow the student throughout the school so that data can be collected across all environments, not just the classroom.

Teachers and staff will mark either a (+) if the student has performed correctly or a (-) if the student has performed incorrectly on a specific goal. At the end of the day, all of the (+)s and (-)s will be added up and a percentage will be computed for each goal. This information will be entered into an Excel spreadsheet and line graphs will be generated weekly.
As part of the formative assessment process, graphs will be reviewed by the teachers weekly and by the Assistant Director biweekly to determine program effectiveness and to ensure appropriate strategies are being used. Information from the formative assessments will be shared with parents as well. Information gathered during the formative assessment process will help teachers determine how quickly students are grasping the material. It will be used as a tool to verify teacher and program effectiveness and will be a driving force in making appropriate program modifications and adaptations for special learners.

Summative assessment plan

The summative assessment plan will also include the use of pre and post assessments in specific core content areas. Summative assessments will include testing at the end of each unit. Summative assessments will be teacher-made, as well as curriculum-based (end of unit or chapter). Additional summative assessments will be created by the teachers in the areas of communication, adaptive and daily skills. Teachers will be able to identify what students know at the beginning of the school year, the end of each quarter or a specific unit and at the end of the school year. Careful analysis of assessment at key intervals will ensure students are growing and reaching key academic benchmarks.

Students will participate in the mandated state assessment – AIMS and AIMS-A (subsequently PARCC and its Special Education adaptation) to measure proficiency on the math and reading standards. Student scores will be compared to their previous year's scores as well as grade level bench marks in reading, writing and math.

Students who are not at grade level academically or who require an individualized education due to their diagnosis and/or deficits in communication, social/emotional and/or activities of daily living will have an Individualized Education Plan (IEP). The team who creates the IEP will consist of teachers, psychologist, related service staff as appropriate (Speech Language Pathologist, Occupational Therapist, etc.), parents and any home support staff. The IEP will be written for a one-year period of time and will detail specific goals that each student will be working on for that school year. Every IEP goal will be aligned to a specific math or reading standard or an alternate standard and will be created based on a specific need for the student. These needs will be identified during initial assessment, diagnostic testing, formal and informal observations and standardized assessments such as ABLLS. IEP goals will be written in measurable terms so it will be easy for staff to identify if progress is being made towards the goal.

Data collected on IEP and PEP goals will not only be used to determine program and teacher effectiveness, but it will also be part of the summative assessment process to look at student progress towards mastering their specific reading and math academic standards. Baseline data will be collected prior to teaching any of the goals to ensure the student has not already acquired the skill. Data will also be reviewed for mastery every quarter and progress notes will be generated detailing progress towards specific goals. At the end of the school year, the IEP/PEP team will come together for an annual review and each of the student's goals will be analyzed using graphs and anecdotal data collected by the teachers and support staff. New goals will be generated based on the skills the student has or has not acquired over the school year. This data driven and individualized program based on state standards will ensure that students at Pieceful Solutions Charter School have the best chance at learning and reaching grade level benchmarks.