Huaxia Gifted and Talented Prep Level - I

Aims: To help students build up critical thinking, cognitive, logical and abstract thinking abilities such as problem solving, classifying and categorizing, recognizing patterns and sequencing, reasoning with shapes and figures, deductive and inductive reasoning, mathematical reasoning. By achieving these abilities, students will not only get well prepared for GT tests in your district, but also build up a solid foundation for academic excellence and success in any assessments.

Contents: Houston Huaxia Chinese school 2021 Spring Semester Sunday Gifted and Talented Prep Level I course is designed to provide students with the opportunity to study the main contents of a variety of tests used by the Greater Houston area to identify children for GT programs, including but not limited to COGAT, IOWA Assessments, OLSAT, and NNAT. Students will be trained in Verbal reasoning, Quantitative reasoning and Non-verbal reasoning which include Pictorial reasoning (picture analogy, picture classification) and Figural reasoning (figure analogy, pattern completion, serial reasoning and spatial visualization).

Students: 1. K and 1st Graders (5 - 7 years old) who plan to take the screening tests for admission into the Gifted and Talented programs or highly-selective public school in Great Houston area.
2. K and 1st Graders who has already admitted into GT programs but still want to learn and build up strong critical thinking, cognitive, logical and abstract thinking ability.
3. K and 1st Graders who are in private school where no GT tests needed but want to learn and build up strong critical thinking, cognitive, logical and abstract thinking ability.

Teacher: Dr. Shu Feng (832-660-1759) Email: shufeng@houstonhuaxia.org Zoom Class Time: Sunday 12:00PM -1:00PM, 01-10-2021 - 05-09-2021
Huaxia Gifted and Talented Prep Level-II

**Aims:** To help students build up critical thinking, cognitive, logical and abstract thinking abilities such as problem solving, classifying and categorizing, recognizing patterns and sequencing, reasoning with shapes and figures, deductive and inductive reasoning, mathematical reasoning. By achieving these abilities, students will not only get well prepared for GT tests in your district, but also build up a solid foundation for academic excellence and success in any assessments.

**Contents:** Houston Huaxia Chinese school 2021 Spring Semester Sunday Gifted and Talented Prep Level II course is designed to provide students with the opportunity to study the main contents of a variety of tests used by the Greater Houston area to identify children for GT programs, including but not limited to COGAT, IOWA Assessments, OLSAT, and NNAT. Students will be trained in Verbal reasoning, Quantitative reasoning and Non-verbal reasoning which include Pictorial reasoning (picture analogy, picture classification) and Figural reasoning (figure analogy, pattern completion, serial reasoning and spatial visualization).

**Students:**
1. 2nd and 3rd Graders (7 – 9 years old) who plan to take the GT screening tests for admission into the Gifted and Talented programs or highly-selective public school in Great Houston area.
2. 2nd and 3rd Graders who has already admitted into GT programs but still want to learn and build up strong critical thinking, cognitive, logical and abstract thinking ability.
3. 2nd and 3rd Graders who are in private school where no GT tests needed while want to learn and build up strong critical thinking, cognitive, logical and abstract thinking ability.

**Teacher:** Dr. Shu Feng (332-660-1759)  
**Email:** shu.feng@houstonhuaxia.org  
**Zoom Class Time:** Sunday 11:00AM -12:00PM, 01-10-2021 - 05-09-2021
Huaxia Math Enrichment 1st Grade

Instructor: 冯树 博士

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<td>Pre-requisites</td>
<td>Kindergarten Math</td>
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<td>Prepare for</td>
<td>Huaxia Math Enrichment Grade 2</td>
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Huaxia Math Enrichment Grade 1 is designed to teach students mathematics on many fronts, including numbers and number sense, computation (addition, subtraction, multiplication and division), fractions, patterns, geometry shapes, money, measurement, time and simple graphs. Certain GT related content will be introduced to inspire student’s critical thinking. This course will help students to move away from counting objects to doing more mental math, understand math concepts, master basic operations, and develop a positive attitude towards math.

上课时间：
周六 11:00am-12:00pm
周日 1:00pm-2:00pm

- Recognize, describe and compare numbers.
- Develop addition and subtraction concepts and strategies.
- Understand place value.
- Add one and two-digit numbers in columns without and with regrouping.
- Subtract one and two-digit numbers in columns without and with regrouping.
- Solve addition and subtraction word problems.
- Recognize number patterns.
- Develop multiplication and division concepts.
- Measure length weigh with non-standard units and compare objects.
- Identify money and solve simple addition and subtraction problems involving money.
- Recognize time.
- Identify and compare plane and solid shapes.
- Describe fractional parts.
- Organize and represent data.
HuaXia Math Enrichment
2nd Grade

Instructor: 冯树 博士

Students 2nd Grade
Pre-requisites 1st Math
Prepare for Huaxia Math Enrichment Grade3

Description:

Huaxia Math Enrichment Grade 2 is designed to teach students mathematics on many different areas, including numbers and number sense, arithmetic operations (addition, subtraction, multiplication and division), fractions, geometry (two-dimensional and three-dimensional shapes), measurement (length, weight, perimeter, area and capacity), time, and data presentations. Certain GT related content will be involved to inspire student’s critical thinking. This course will help students to not only develop a positive attitude towards mathematics, but also build up a solid math foundation.

- Identify place value and compare numbers.
- Round numbers and define odd and even numbers.
- Add two- and multi- digit numbers without and with regrouping.
- Subtract two- and multi- digit numbers without and with regrouping.
- Apply addition and subtraction concepts and strategies to solve word problems.
- Identify and compare fractions.
- Develop multiplication and division concepts and strategies.
- Apply multiplication and division concepts and strategies to solve word problems.
- Identify patterns
- Tell time and identify relationships of time.
- Determine the value of money and solve word problems involving money.
- Understand Geometry and Spatial reasoning.
- Measure length, perimeter, area, weight, and capacity.
- Organize and use data with graphs.

上课时间:
周六 11:00am-12:00pm
周日 1:00pm-2:00pm
Introduction of Instructor: Ms. Li has a master’s degree on education and she is holding two Texas Standard Teaching Certificates, Core Subject (EC-6) and Chinese (EC-12). Ms. Li is very good at combining the American and Chinese pedagogies. Ms. Li has a very high expectation for her students. She loves using strong teaching strategies to engage her students and help them learn critically.

<table>
<thead>
<tr>
<th>11:00am–12:00pm</th>
<th><strong>Huaxia Math Enrichment 3rd Grade</strong></th>
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<tr>
<td>Students</td>
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<td>Workbooks:</td>
<td>Primary Mathematics 3A, 3B</td>
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课程内容: 乘法、除法、度量衡、分数及分数加减法、时间及时间加减、简单平面几何。

Content: Multiplication, division, measuring, fraction/decimal addition and subtraction, time/time addition and subtraction, simple geometry.

课程特点：英文授课。以新加坡数学的教材为基本进度，运用美式课堂的教学手段，中西结合地为孩子讲授数学课。作为美国学校数学课堂以外的一个提高性补充。

Features: Use English to deliver the lessons. As a proud Chinese parent, Ms. Li has a very high expectation for her math students. She will use Primary Mathematics as textbooks and American pedagogies as teaching strategies.
2020 Fall Huaxia Singapore Math Class  （Elementary 3rd, 4th Grade）
Teacher: Ms. Kong Hong
Target Students: 3rd, 4th Grade Elementary or younger

Schedule: Sunday

3rd Grade Class 11:00AM–12:00PM
4th Grade Class 12:00PM–01:00PM

● Use “Specific Learning Tasks” to introduce basic mathematical Concepts and cultivate students’ ability to learn assessment and consolidation.
● Use “Concrete–Pictorial–Abstract Approach” to guide and develop children’s logical and critical thinking.
● Use “Modeling Method” to visualize and solve mathematic problems quickly and efficiently.
Dr. Liu received her B.S in Physics from Peking University and Ph. D in Electrical Engineering from Duke University. She currently works as an AI engineer.

刘老师北京大学物理专业本科毕业，杜克大学电子工程专业博士毕业，目前是人工智能工程师

Instructor: 刘秋华博士

Course Syllabus
Pre-Algebra: Topics include the properties of arithmetic, exponents and exponent laws, primes and prime factorization, fractions, linear equations, inequalities, decimals, ratios, proportions, rates, percents, square roots, basic geometry, statistics, counting and probability

基础代数，包括小学数学竞赛的基本知识点: 四则运算的性质, 指数，分数，小数，百分比的运算和性质，比值问题，质数, 合数，单位换算，线性方程，不等式，平方根，基础几何，基础统计及概率。

Target Students:
Advanced 4th and 5th grade students who just starts math contest.

开始参加小学数学竞赛的四五年级学生。

Course Descriptions & learning objectives:
This course will be focusing on prealgebra topics that appears in elementary school math contests, including mathleague, MOEMS, and TMSCA.

小型数学竞赛基础代数知识点。

Required Prerequisites
Regular Elementary school math

小学数学基本知识点

Required Text & Resources:
Book: AOPS Pre-Algebra
HuaXia Math Enrichment
5th Grade

Instructor: 唐军平 博士

Target Students: 5th to 6th grade

| Required Prerequisites | Have knowledge of arithmetic operations (addition, subtraction, multiplication, and division) of natural and whole numbers, and some basic knowledge of fractions. |

Course Descriptions / Learning Objectives

This course is designed to improve and enhance students’ understanding of signed numbers and fractions through systematic and complete study of relevant materials.

The following concepts and skills will be studied in this course:

1. Integers and number lines: comparison of integers; addition, subtraction of integers; multiplication and division of integers and sign rules.
2. Fractions: equivalent fraction, the simplest form; comparison of fractions; addition of fractions; subtraction of fractions; multiplication of fractions; division of fractions.
3. Concept of complex fractions and their operations.
4. Mixed numbers and concept of improper fractions; operations of mixed numbers.

Saturday、Sunday: 11:00am-12:30pm
HuaXia Math Enrichment 6th Grade

Instructor: 唐军平 博士

Target Students: 6th grade – 7th grade

Dr. Tang has background in Physics, Biophysics. He obtained his Ph. D in engineering from UT Austin.

Contents

Percents
1) Concept of percents
2) Converting fraction to percents
3) Converting decimals to percents
4) Converting percents to fractions or decimals
5) Operations of percents
   Word problems

Ratio, Rate, and Proportion
1) Concept of ratio
2) Concept of rate
3) Concept of proportion
4) Properties of proportion

Saturday、Sunday：12:30pm-2:00pm

Required Prerequisites
Have knowledge of concept and operations (addition, subtraction, multiplication, and division) of fractions. Have taken the 5th grade math.

介绍百分数，以及与分数，小数的关系以及互相转换。详细讲解rate, ratio, proportion的区别与联系，使得学生对于有理数与无理数有清晰的理解。特别侧重在有关文字题的分析与解题技巧，进而为学习实数的概念，以及代数预修 (Pre-algebra) 打下牢固的基础。
Following CBE study guide, this course is designed for current 5th graders who are willing and academically prepared to accept the challenge of accelerating 6th grade math.

The course covers the following objectives.
Objective 1: Number Operations
Objective 2: Fraction and Decimal Operations
Objective 3: Ratios, Rates and Percentages
Objective 4: Integer Operations
Objective 5: Financial Literacy
Objective 6: Expressions, Equations, and Inequalities
Objective 7: Multiple Representations
Objective 8: Two-Dimensional Figures and Measurement
Objective 9: Data and Statistics