Huaxia Gifted and Talented Prep Level –I

华夏天才准备班-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 resoning** 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.

华夏**Gifted and Talented Prep Level I** (天才准备班I)是为一年级以及准备升入一年级的幼儿园学生设计的教程。内容包括COGAT, NNAT, OLSAT 以及IOWA等大休斯顿地区GT筛选考试相关内容。通过学习语言、数量和非语言项目, 包括图片的类比、分类和推理, 几何图形的类比、分类、系列推理以及空间推理, 建立和提高学生的认知能力, 批判性思维和逻辑推理思维及解决问题的能力。

目的: 1. 帮助学生准备大休斯顿卫星城区的 **Gifted and Talented program** (天才班) 的入取筛选考试。

2.建立和提高 学生的认知能力, 批判性思维和逻辑推理思维及解决问题的能力, 为在学校的各个学科取得良好成绩打下坚实基础。

招生对象:

1. 准备参加GT 筛选考试的一年级和幼儿园的学生 (5 - 7 岁)。

2. 已经升入GT班的一年级和幼儿园的学生, 虽无需再参加GT筛选考试, 但希望进一步学习和提高认知能力, 建立批判性思维和逻辑推理思维及解决问题的能力。

3. 私立学校一年级及幼儿园的学生, 虽无需参加GT筛选考试, 但希望学习和提高认知能力, 建立批判性思维和逻辑推理思维及解决问题的能力。

Teacher: Dr. Shu Feng (832-660-1759) **Email:** shu.feng@houstonhuaxia.org   **Zoom Class Time: Sunday 12:00PM -1:00PM, 01-10-2021 - 05-09-2021**

Huaxia Gifted and Talented Prep Level –II

华夏天才准备班-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 resoning** 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 (832-660-1759) **Email:** shu.feng@houstonhuaxia.org   **Zoom Class Time:** Sunday 11:00AM -12:00PM, 01-10-2021 - 05-09-2021

华夏 Gifted and Talented Prep Level II (天才准备班II)是为二年级和三年级的学生设计的教程。教程包括COGAT, NNAT, OLSAT 以及IOWA等大休斯顿地区GT筛选考试相关内容，通过学习语言、数量和非语言项目，包括图片的类比、分类和推理，几何图形的类比、分类、系列推理以及空间推理建立和提高学生的认知能力，批判性思维和逻辑推理思维及解决问题的能力。

目的: 1. 帮助学生准备大休斯顿卫星城区的 **Gifted and Talented program** （天才班）的入取筛选考试。

2.建立和提高学生的认知能力, 批判性思维和逻辑推理思维及解决问题的能力，为在学校的各个学科取得良好成绩打下坚实基础。

招生对象：

1. 准备参加GT班筛选考试的二年级和三年级的学生 (7-9岁）。

2. 已经升入GT班的二年级和三年级的学生，虽无需再参加GT筛选考试，但希望进一步学习和提高认知能力，建立批判性思维和逻辑推理思维及解决问题的能力。

3. 私立学校的二年级和三年级的学生，虽无需GT筛选考试，但希望进一步学习和提高认知能力，建立批判性思维和逻辑推理思维能力及解决问题的能力。

HuaXia Math **Enrichment**
1st Grade

Instructor：冯树 博士

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

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

Description

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

华夏数学三、四年级课程
——新加坡数学

授课教师：李叶欣

美国教育学硕士，持有德州认证标准全科老师（EC-6）及标准中文老师（EC-12）教师资格证。擅长结合中美两国的教育理念。教学中强调用美式课堂活跃的教学手段调动学生积极性并发展批判性思维，同时传承中式教育中对学生的高期待、严要求。

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.

11:00am–12:00pm	*Huaxia Math Enrichment 3rd Grade*
Students	3rd Grade
Pre-requisites	2nd Math
Prepare for	Huaxia Math Enrichment Grade4
Workbooks:	Primary Mathematics 3A, 3B

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/ fraction addition and subtraction, time/ time addition and subtraction, simple geometry.

12:00pm–1:00pm	*Huaxia Math Enrichment 4th Grade*
Students	4th Grade
Pre-requisites	3rd Math
Prepare for	Huaxia Math Enrichment Grade5
Workbooks:	Primary Mathematics 4A, 4B

课程内容：小数及小数加减法、分数与小数的互换、几何里角的概念、小数的乘除法、简单立体几何。
Content: Decimal/decimal addition and subtraction, fraction and decimal，angle，decimal/multiplication and division, solid 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.

华夏数学Enrichment 三、四年级

——新加坡数学

授课老师：孔红老师

招收学生：已完成数学二或三年级的同学

- 用"特定的学习任务"引入基本的数学概念，培养孩子整合、自测能力。

- 用"具体->图形->抽象"方法引导孩子数学思考、分析能力。

- 用"条形表"快速有效地解决复杂的数学应用问题。

时间:周日三年级11:00am-12:00pm,四年级12:00pm-01:00pm

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.

小学数学竞赛初级

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，包括小学数学比赛的基本知识点: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.

小学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

新生班　　　心算速算

课程/Course:心算速算	老师/Teacher: 唐军平
学生/Students: Grade 4th-5th	为期/Duration: 1 hours a week,
数学预备知识：熟练记住乘法口诀。	

课程说明/Course Description：

本课程训练学生将运算技能建立在对运算性质与规律的理解之上，如加法的同一律、交换律、结合律、乘法的交换律、结合律，分配律，括号的运用，从而熟练的掌握运算。特别帮助学生将9x9乘法表扩展到99x99乘法表，使得学生能够对两位数的运算进行心算速算。

加 法

同一律（Identity law）及在加法中的运用；
互补数（Complement numbers）与交换律
（commutative law）；
交换律在加法中的运用；
数字重组与结合律（associative law）
结合律在加法中的运用；
Addition skills_ adding complements first;
Addition skills_ breaking apart a number;
Addition skills_ picking a point of reference;
Addition skills_ No carrying;
Addition skills_ based on patterns;

减 法

Subtraction_Skills_0_Turn subtraction to addition;
Subtraction_Skills_1_No borrowing
Subtraction_Skills_5_by over-subtracting;
Subtraction_Skills_6_by under-subtracting;
Subtraction_Skills_7_subtracting from a power of 10;
Introduction to 99 x 99 table;
Multiplying by applying commutative rule;
Multiplying by applying associative rule;
Multiplying by applying distributive rule (break apart);
Multiplying with no carrying;
Multiplying with factors
Multiplying by 11, 21, 31...
Multiplying by 9, 19, 29.....
Multiplying by multiples of 9
Multiplying by multiples of 11
Multiplying number which digits has multipled relationship
Multiplying same number (square)_5_Perfect square
Multiplying same number (square)_6_Perfect square
Multiplying same number (square)_7_Perfect square
Multiplying same number (square)_8_Perfect square
Multiplying same number (square)_9_Perfect square
Multiplying same number (square) ending with 1
Multiplying same number (square) ending with 9
Multiplying numbers just under 100

教师介绍/About The Teacher: 唐军平 博士
Dr. Tang has background in Physics, Biophysics. He obtained his Ph. D in engineering from UT Austin。
唐老师在华夏任教多年，是华夏基础数学老师，教学中认真负责，帮助孩子们把知识点掌握好，巩固住，为孩子们初中数学课的学习奠定了扎实的数学基础。

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.

Saturday、Sunday：11:00am-12:30pm

Course Syllabus

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

HuaXia Math **Enrichment** 6th Grade

Instructor：唐军平 博士

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

Target Students:
6th grade – 7th grade

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。

Contents

Percents

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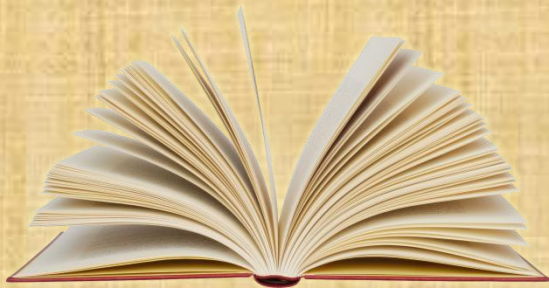5) **Operations of percents**
   Word problems

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

6th Grade Math Credit By Exam

FOR FIFTH GRADERS

MS.YIDONG WU

LEVEL UP

Following CBE study guide, this course is designed for current 5th graders who are willing and academically prepared to accept the challenge of accelarating 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