Concept-based Learning Empowers Transition from kindergarten to Primary School

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VKMH
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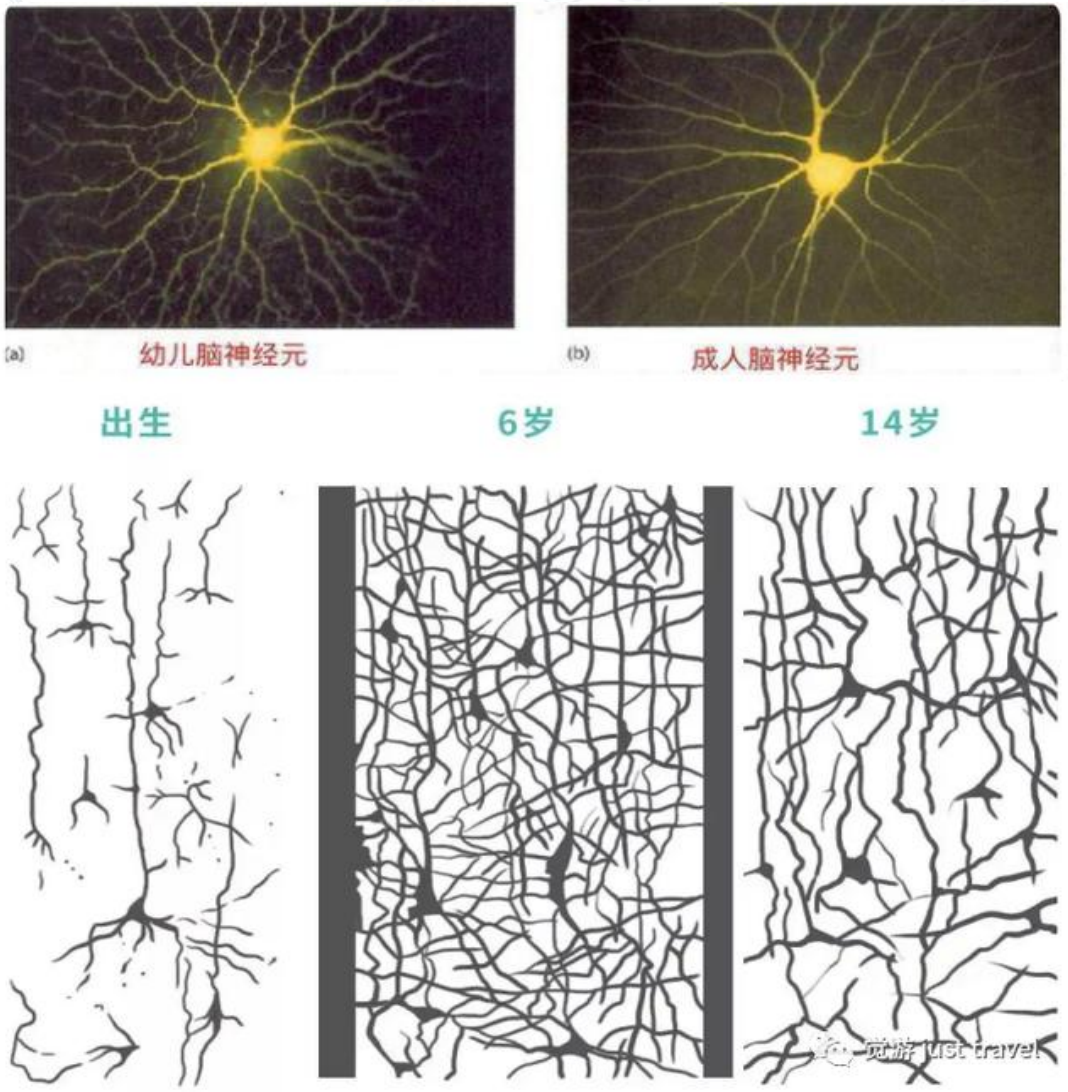
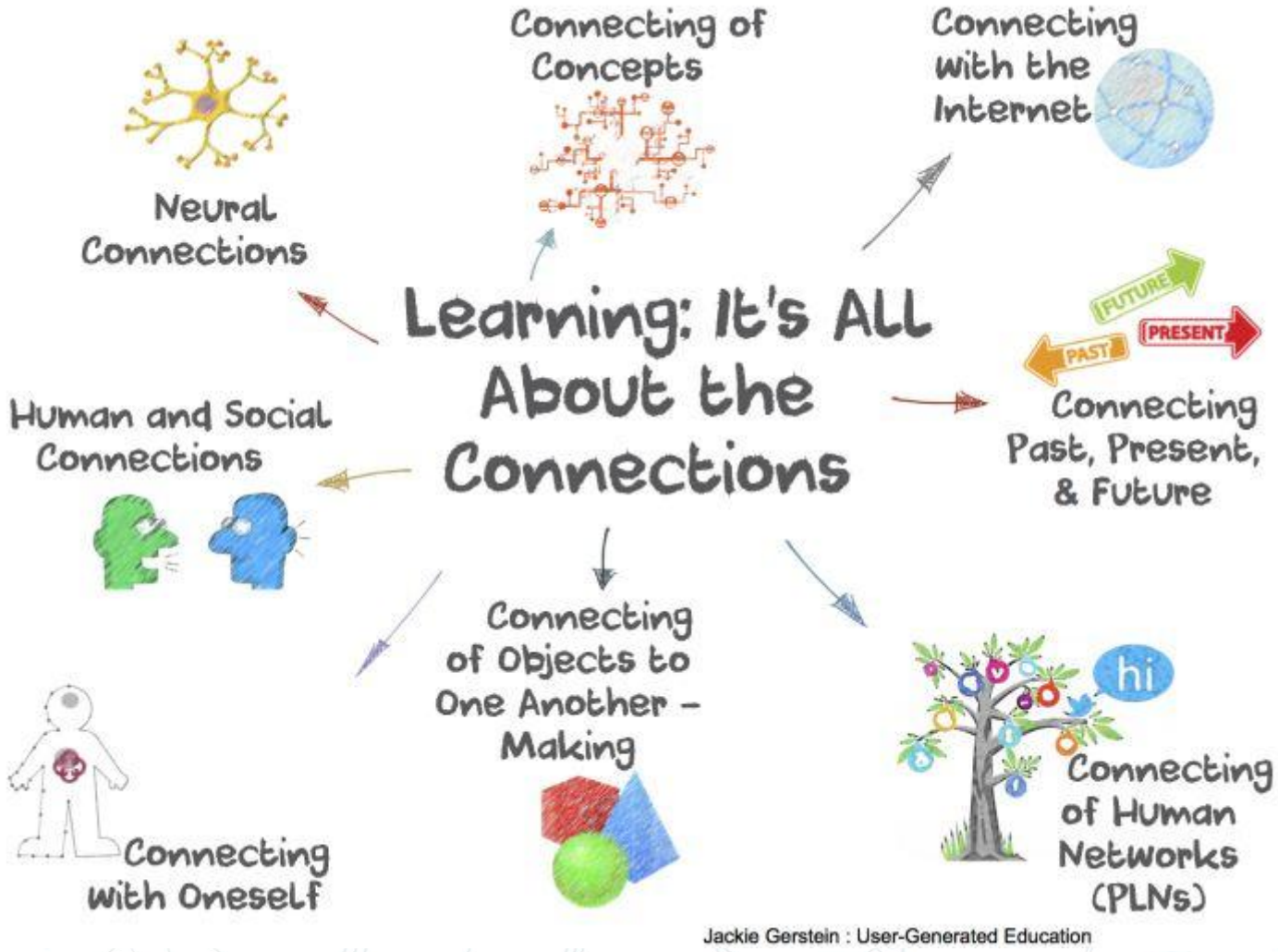
A
K-12
SCHOOL
VANKE KINDERGARTEN, MINHANG
万科双语学校
YANKE BILINGUAL SCHOOL
ADMISSIONS 招生办

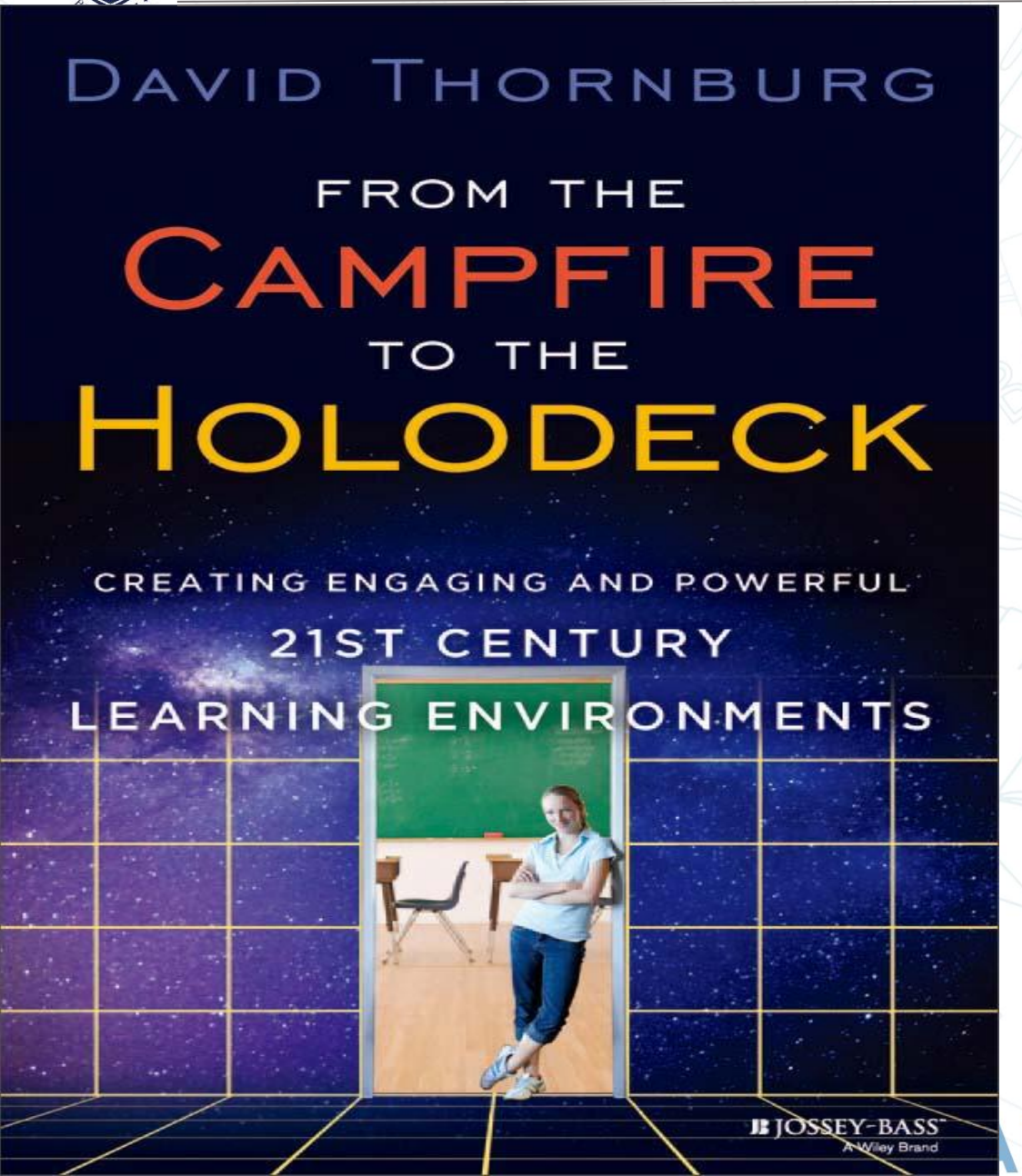
The Essence of Learning: Connection

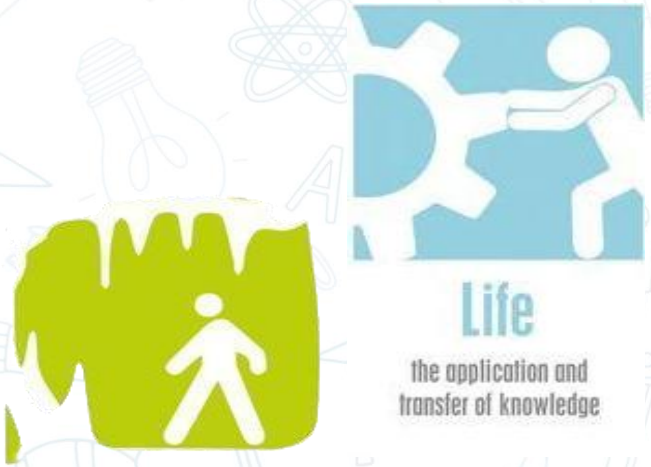




INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Redefining Learning

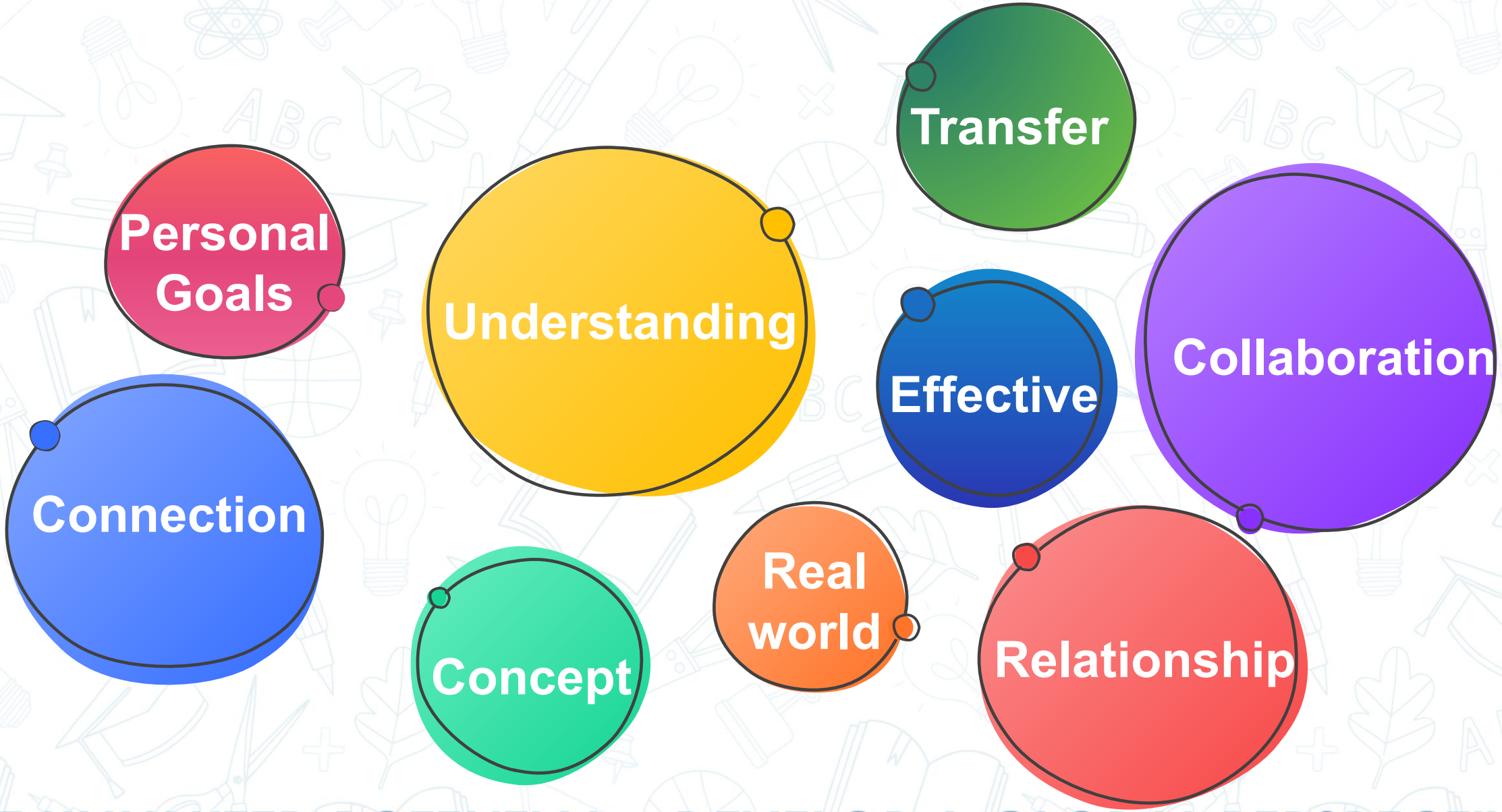




DEVELOP A GLOBAL PERSPECTIVE

High-quality Learning

Key Words


Transfer
Personal Goals
Understanding
Effective
Collaboration
Connection
Concept
Real world
Relationship

What to connect from kindergarten to Primary School?

Learning Habits

Language Expressions

Social Skills

Independence

Confidence

Academic Foundation

Thinking Skills

Self-Management

Emotional Management

Behavior & Disciplines

COGNITIVE SKILLS

PERSONAL SKILLS

INTERPERSONAL SKILLS

INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Some Definitions of CONCEPT

Concepts are mental constructs drawn from a topic or a process that transfer to new situations and contexts. They allow us to organize, make sense of, analyze, and interact with information in a complex world.

As the building blocks of thought, concepts create "the natural bridge between mind and the world" (Rosch)

Concepts transfer across time, place, and situation.

In a rapidly changing world, our ability to transfer concepts to unfamiliar contexts gives us immense cognitive advantage.

An understanding of concepts help us make objects, situations, and ideas meaningful and connected. They build students' critical thinking skills and their ability to analyze and deeply understand the world around them.

Concepts exist at different levels of generality, both within a subject area and across disciplinary bounds

Providing the greatest breadth, the concepts are the most transferrable to new contexts and situations

Conceptual Understanding in the PYP

Conceptual understanding creates opportunities for learners to make connections, transfer and apply skills, knowledge and understanding across, between and beyond subjects.

Conceptual understanding is key to an IB education

It is a non-linear, ongoing process throughout which understandings evolve and misconceptions are identified and dispelled

Conceptual understanding is a understanding that connects factual, procedural and metacognitive knowledge

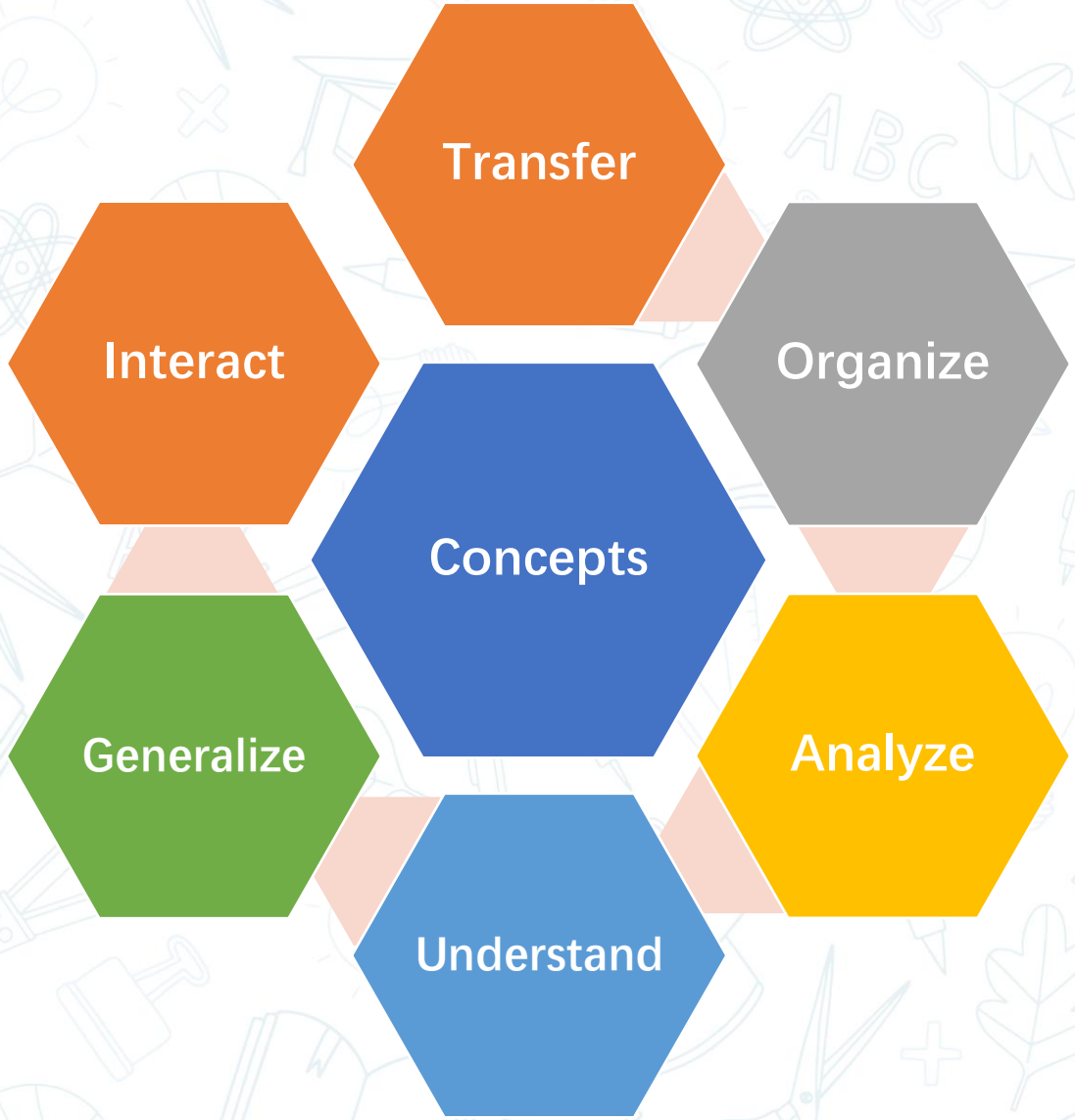
Concepts are fundamental, abstract ideas and play a critical role in organizing, designing and planning curriculum and learning

In the PYP, concept-based inquiry is a powerful vehicle for learning that promotes meaning and understanding, and challenges learners to engage with significant ideas.

Conceptual understanding is a understanding that connects factual, procedural and metacognitive knowledge

Concepts function in cognitive skills building

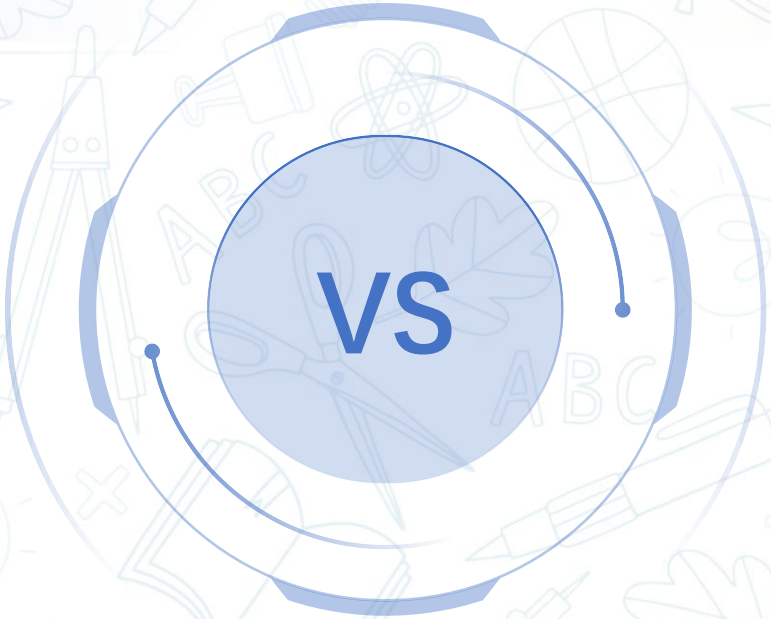
- Theme/title
- Central idea
- Driving concepts
- Big ideas
- Guiding questions
- Critical contents
- Key skills
- Assessment rubric
- Reflect/overview



Macro-design with concept-based learning

Fact-driven Curriculum

- Knowledge-based
- Contents heavy
- Skills-related
- Supported by evidence
- Frequently topical
- Encourage recall and comprehension



Concept-driven Curriculum

- Open-ended
- Enable exploration of complex issues
- Highlight opportunities to compare and contrast
- Explore contradictions
- Lead to deeper disciplinary and transdisciplinary understandings
- Promote transfer to familiar or less familiar situations, issues, ideas and contexts
- Encourage analysis and application

A concept-driven curriculum is the means through which learners develop their conceptual understandings. Learners co-construct meanings and mental models about how the world works based on their experiences and prior learning.

Is it better to spend class time covering lots of facts, or to cover fewer facts and dive into conceptual understanding?

Concepts as Content Organizers

Concepts are used to organize prescribed content, are used as prescribed content, or are used to establish connections across content, e.g. multiple lessons or units.

This is what learners will learn: it will therefore directly affect the aims, objectives, assessment and learning activities. Concepts are part of the delivered teaching and assessment.

Concepts as Curriculum Organizers

Concepts are used as a rationale for all aspects of curriculum and assessment. They can directly shape a coherent curriculum and many learner experiences.

They help determine the methodologies used in areas such as unpacking learning, timetabling, teacher roles, collaboration.

For example, in the Primary Years Programme (PYP), transdisciplinary themes are an example of using concepts to organize the entire curriculum. See for example the online workshop “Learning in a transdisciplinary world”.

Concepts and the role of subjects

Subjects are seen as collections of **concepts**, **skills**, **theories**, **methodologies** and **examples** that contribute to an understanding of how a subject connects to the central idea.

Through the integrated subjects, students come to appreciate that there is a body of subject-specific **knowledge**, conceptual **understanding** and **skills** that can be drawn upon in order to engage with global challenges and opportunities.

Curriculum Design- Connection & Transition

2024–2025学年 PYP Program of Inquiry 探究计划

超学科主题 / 年龄段	我们是谁 Who we are	我们如何表达自己 How we express ourselves	我们身处什么时空 Where we are in place and time	世界如何运作 How the world works	我们如何组织自己 How we organize ourselves	共享地球 Sharing the planet
小班 K1 （3–4岁）	中心思想 Central Idea: 自我探索帮助我们了解自己是谁，以及我们如何与他人相处。 Self-Exploration helps us understand who we are and how we relate to others. 探究线索 Lines of Inquiry: 成长和变化 Grow and change (形式Form) 喜欢的和不喜欢的 Likes and dislikes (变化Change) 家人和我 Me and my family (联系Connection)	中心思想 Central Idea: 用五种感官来探索和表达我们周围的世界。 Use five senses to explore and express ourselves in the world around us. 探究线索 Lines of Inquiry: 我的五种感官 My five senses (形式Form) 用五种感官发现和探索世界 Use five senses to explore the world (变化Change) 感官的不同体验 Senses can be experienced differently (视点Perspective)	懂得关爱 Caring  勤于思考 Thinkers	中心思想 Central Idea: 我们每天都在变化的季节中生活。 The world around us is changing with the seasons. 探究线索 Lines of Inquiry: 每个季节都有不同的特征 Each season have different characteristics (形式Form) 动物和植物适应季节变化 Animals and plants adapt to seasonal changes (功能Function) 季节对人们的活动和着装的影响 The impact of seasons on human activities and clothing (责任Responsibility)	中心思想 Central Idea: 了解不同的交通方式有助于我们了解人和物的迁移。 Understanding different modes of transportation helps us to learn how people and goods move from one place to another. 探究线索 Lines of Inquiry: 不同的交通运输工具 Different forms of transport (形式Form) 运输者的角色和责任 The roles and responsibilities of transportation users (责任Responsibility) 运输方式的变化 Modes of Transportation constantly changing (变化Change)	胸襟开阔 Open-Minded  坚持原则 Principled
中班 K2 （4–5岁）	中心思想 Central Idea: 对身体构造的认识能培养健康的生活习惯和生活方式。 Understanding the structure of the body can foster healthy habits and lifestyles. 探究线索 Lines of Inquiry: 身体的各种不同部位和作用 Our body has many unique parts and different functions (功能Function) 生活方式和习惯对身体健康的影响 Lifestyle and habits affect our health (因果Causation) 如何保护我们的身体 How we should protect our body (联系Connection)	中心思想 Central Idea: 人们会用不同的形式来创作和讲述故事。 Stories come in many forms and can be expressed in different ways. 探究线索 Lines of Inquiry: 不同的故事形式 There are many different types of stories (形式Form) 创造自己的故事 Create our own stories (联系Connection) 通过不同的方式来阐释故事 Interpret stories in different ways (视点Perspective)	及时反思 Reflective  积极探究 Inquirers	中心思想 Central Idea: 人类与其他生物共享水资源的方式影响生态环境。 The way humans share water with other organisms effects the ecological environment. 探究线索 Lines of Inquiry: 水的不同特性 Water has different properties (形式Form) 世界各地对水资源的利用 Communities around the world utilize water resources (联系Connection) 人们有责任对水资源的责任 Humans have a responsibility to use water wisely (责任Responsibility)	 善于交流 Communicators	中心思想 Central Idea: 生物的生存生长需要特定条件，且互相依赖和平共存。 The survival and growth of living things requires specific conditions, and they depend on each other to coexist peacefully. 探究线索 Lines of Inquiry: 生命的循环周期 Unique life cycles of living things (变化Change) 生物的生长和发展 Growth and the care of living things (责任Responsibility) 生物生长的基本需求 Living things have basic needs to survive (联系Connection)
大班 K3 （5–6岁）	中心思想 Central Idea: 人们在变化的环境中学习和成长。 People learn and grow in a changing environment. 探究线索 Lines of Inquiry: 学校教育对个人的影响 School life changes from kindergarten to primary school (因果Change) 我们的责任和我们的行为 The challenges and responsibilities of Change (责任Responsibility)	中心思想 Central Idea: 艺术帮助我们表达感受和灵感。 Art helps us express our imagination and inspiration. 探究线索 Lines of Inquiry: 不同形式的创意表达 Types of creative expression (视点Perspective) 艺术的表现形式 The forms of artistic expression (形式Form) 如何用艺术表达 How to express oneself through art (功能Function)	中心思想 Central Idea: 探索不同的地方有助于我们了解我们的世界。 Exploring different places helps us understand our world. 探究线索 Lines of Inquiry: 世界各地不同的人们的生活方式和文化 People's daily lives and culture in different places around the world (因果Causation) 不同的生活方式对文化认同的影响 The connections between different lifestyles and cultures (联系Connection) 适应不同的地点和生活方式 Adapt to different local lifestyles and cultures (变化Change)	用于尝试 Risk-takers  全面发展 Baianced	知识渊博 Knowledgable 	中心思想 Central Idea: 当代儿童面临不同于其他时期的新问题和挑战。 Today's children face new risks and challenges unlike any other time. 探究线索 Lines of Inquiry: 现代技术带来的利弊 The advantages and disadvantages of modern technology (因果Causation) 我们如何为自然灾害做准备并对其做出反应 How we prepare for and respond to natural disasters (功能Function)

超学科主题 / 年级	Who we are 我们是谁	How we organize ourselves 我们如何组织自己	How we express ourselves 我们如何表达自己	Where we are in place and time 我们身处何时何地	How the world works 世界如何运作	Sharing the planet 共享地球
Grade5 五年级						
Grade4 四年级						
Grade3 三年级						
Grade2 二年级						
Grade1 一年级						

Central idea comparison-Kindergarten

Who we are – nature of self beliefs and values, human relationships, rights and responsibilities

Physical Education

Connection – relationships, team work

Music

Function - relationships (between the artist and the audience)

Maths

Function – relationships, belonging systems – place value

People seek places where they feel a sense of belonging

Social Studies

Connection – behaviours, interactions, belonging
Function – relationships

Connection, function
Behaviour, relationships, interactions and belonging

Languages

Connection – belonging, relationships, interactions

Visual Art

Function – behaviour (ways artists ca use creativity to convey a message)

PSE

Connection – behaviours, feelings
Function – belonging, interactions

Central idea comparison-Primary School

How we organize ourselves– Communities create a sense of purpose, identity and connection

Physical Education

Connection – **network**

Music

Function - relationships (between the artist and the audience)

Maths

Form – system, networks

Community help to build ourselves

Social Studies

Form – system, interdependence
connection – relationships

Connection, responsibility, form
System, networks, interdependence

Languages

Connection – interdependence

Visual Art

Form – **system**

PSE

Connection – networks
Responsibility-interdependence

Central ideas for deep conceptual understanding

Central ideas are **globally significant** and **invite student inquiry** around a broader conceptual understanding. In developing or revising a central idea, consider the following questions:

01 Does it offer students opportunities to explore the commonalities and divergences of our experiences?

02 Does it promote the associated conceptual understanding?

03 Is it broad enough to offer multiple lines of inquiry?

04 Is it underpinned by concepts?

05 Is it relevant to students in all cultures and contexts?

06 Will it engage students in thinking critically, creatively and compassionately?

07 Does it present an opportunity for students to co-construct meaning of the conceptual understanding being explored?

08 Is it open to a range of student responses?

09 Is it written in a neutral voice?

Strategies to develop Conceptual understanding

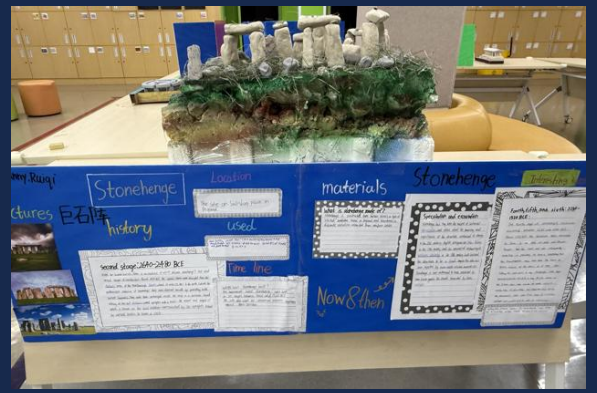
Learning experiences

Evidence

Environment

Resources

Multimodal communication



Conceptual Connection between kindergarten and Primary School

Concept-based learning：“who we are” —— Lines of Inquiry

Connection：

· Both focus on “**Individual Growth and development**”

· Kindergarten emphasize “**adapt to the external changes**”，

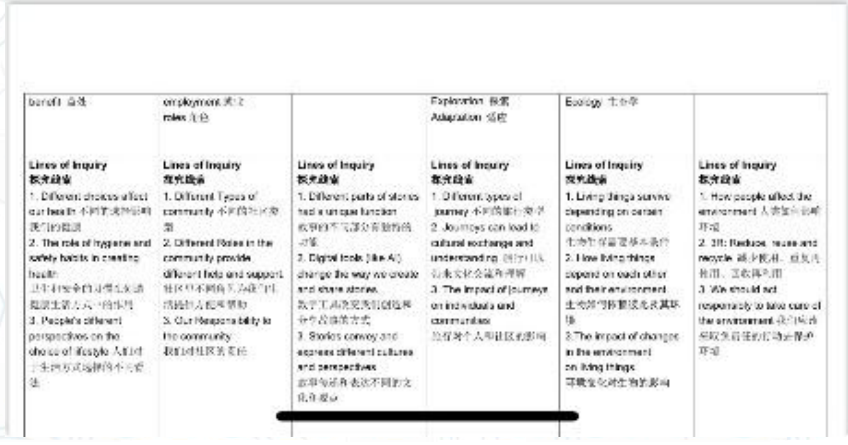
Primary school moves to “**Proactive internal choice**”

· Concept changes from “**change、causation、responsibility**”

to “**form、function、opinion**”, thinking level is upgrading gradually

G1 一年级

2. Who we are 我们是谁	1. How we organize ourselves 我们如何组织我们	3. How we express ourselves 我们如何表达自己	4. Where we are in place and time 我们身处怎样的时空	6. How the world works 世界如何运作	5. Sharing the planet 共享地球
Central Idea 中心思想: People's choices help create a balanced lifestyle 人们的选择帮助创造平衡生活方式。	**Central Idea 中心思想:** Communities create a sense of purpose, identity and connection 社区通过目标感、身份认同和连结而成。	**Central Idea 中心思想:** Stories can be created and shared in many different ways 故事可以用许多不同的方式来创作和分享。	**Central Idea 中心思想:** Journeys help us explore, adapt, and understand cultural diversity. 旅程帮助我们探索、适应并理解多元文化。	**Central Idea 中心思想:** Living things need basic conditions to survive and influence each other. 生物需要基本条件才能生存，并且相互影响。	**Central Idea 中心思想:** Reducing, reusing and recycling help humanity to be responsible for the environment 减少使用、再使用、回收利用的做法有助于人类对环境负责。
Specified Concepts Form 形式 Function 功能 Perspective 观点	**Specified Concepts** Form 形式 Connection 联系 Responsibility 责任	**Specified Concepts** Function 功能 Perspective 观点 Change 改变	**Specified Concepts** Form 形式 Change 变化 Connection 联系	**Specified Concepts** Form 形式 Causation 因果关系 Connection 联系	**Specified Concepts** Connection 联系 Causation 因果关系 Responsibility 责任
Concepts 概念 well-being 健康 nutrition 营养 fitness 健身	**Concepts** 概念 system 系统 networks 网络 interdependence 相互依存	**Concepts** 概念 Genre 体裁 Conflict 冲突	**Concepts** 概念 Discovery 发现 Culture 文化 History 历史	**Concepts** 概念 Adaptation 适应 Classification 分类 Habitat 栖息地	**Concepts** 概念 Conservation 保护 Resources 资源 Pollution 污染



benefit 益处	employment 就业 roles 角色		Exploration 探索 Adaptation 适应	Ecology 生态学	
Lines of Inquiry 探究路径 1. Different choices affect our health 不同的选择影响我们的健康 2. The role of hygiene and safety habits in creating health 卫生和安全的习惯在创造健康生活方式中的作用 3. People's different perspectives on the choice of lifestyle 人们对于生活方式选择的不同看法	**Lines of Inquiry** 探究路径 1. Different Types of community 不同类型的社区 2. Different Roles in the community provide different help and support 社区中不同角色为我们提供不同的帮助和支持 3. Our Responsibility to the community 我们对社区的责任	**Lines of Inquiry** 探究路径 1. Different parts of stories had a unique function 故事的不同部分有独特的功能 2. Digital tools [like AI] change the way we create and share stories. 数字工具改变我们创造和分享故事的方式 3. Stories convey and express different cultures and perspectives 故事传递和表达不同的文化和观点	**Lines of Inquiry** 探究路径 1. Different types of journey 不同类型的旅行 2. Journeys can lead to cultural exchange and understanding 旅行可以带来文化交流和理解 3. The impact of journeys on individuals and communities 旅行对个人和社区的影响	**Lines of Inquiry** 探究路径 1. Living things survive depending on certain conditions 生物生存需要特定条件 2. How living things depend on each other and their environment 生物如何依赖彼此及其环境 3. The impact of changes in the environment on living things 环境变化对生物的影响	**Lines of Inquiry** 探究路径 1. How people affect the environment 人类如何影响环境 2. 3Rs: Reduce, reuse and recycle 减少使用、重复利用、回收利用 3. We should act responsibly to take care of the environment 我们应该负责任地保护环境

Conceptual Connection between kindergarten and Primary School

lines of Inquiry 1：school life changes（Concept：change）

Identify and describe “CHANGE”.

Activity design:

1. “PS Exploration”worksheet（form）：

observe and take notes on the difference, campus, canteen, playground etc.

2. “My time capsule” （change）：

Draw your favorite activity and look forward to PS life, save it and expect to open it after Grade 1

3. role play“I am a PS student”（opinion）：

Model PS classroom, view as a PS student.

Conceptual Connection between kindergarten and Primary School

Lines of Inquiry 2 & 3：
How to adapt to the changes & take different responsibilities（Concept：causation/ responsibility）

Activity design：

1. Reading《小阿力上大学校》（Causation）：

   Causation from afraid of going to school to like，

   Understand the causation between emotional change and adaptation

2. “class task”（responsibility）：

   Class Librarian, Plant manager role setting

   Emphasize that each one should take responsibility。

3. Make “Graduation Count down” plan（responsibility & change）：

   Plan graduation activity, learn time management

引导儿童理解变化的原因，并初步建立责任感，为适应新角色做好准备。

Conceptual Connection between kindergarten and Primary School

Concept-based growth

For Children：

☆From “afraid of change”to“Understand and embrace change”

☆From“follow rules passively”to“actively make choices”

☆Form transferrable thinking model（concepts)

☆Personal qualities（self-management、thinking、social skills）

For teachers：

☆clear structure of design and connecting curriculum

☆From“teaching knwoledge”to “using concept to guide”

☆Deep and collaborative planning

Micro-design with concept-based inquiry

At a Glance

1.How we organize ourselves 我们如何组织我们

Central Idea 中心思想	Communities create a sense of purpose, identity and connection. 社区创造目标感，身份认 同感和归属感
Specified concepts 关键概念	Form形式　Connection联系　Responsibility 责任
Lines of Inquiry 探究线索	1.Different Types of community 不同的社区类型 2.Different Roles in the community provide different help and support. 社区里不同角色为我们生活提供方便和帮助 3.Our Responsibility to community 我们对社区的责任
Learner Profiles 培养者目标	Reflective 及时反思　Open-Minded 胸襟开阔　Balanced 全面发展
ATLs 学习方法	Communication Skills 沟通技能　Social Skills 社交技能　Self-management skills 自我管理技能
Focused Subject 核心学科	PSPE 个人、社交和体育　Language 语言　Science 科学

Inquiry Cycle

1.Tuning In

Students explore prior knowledge about different communities.

This stage builds connection from students and sets the foundation for inquiry.

2.Finding Out

Inquiry Cycle

1.Tuning In

2.Finding Out

Students conduct research to learn more about the role of communities and their importance. This is where the students expand their knowledge through inquiry.

3.Sorting Out

Inquiry Cycle

2.Finding Out

3.Sorting Out

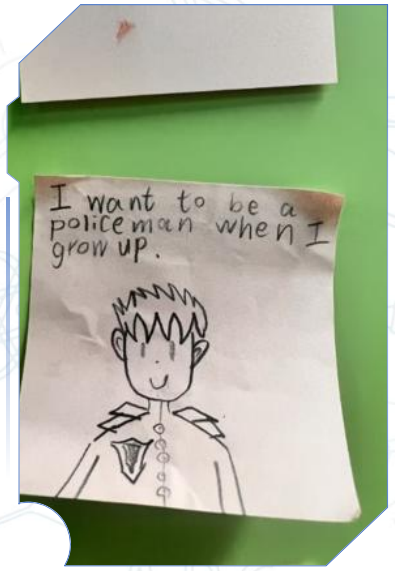
Students organize their findings and identify key ideas, they began to learn about their own responsibility in the community.

This stage encourages critical thinking and connections between concepts.

4.Going Further

Inquiry Cycle

3.Sorting Out



4.Going Further

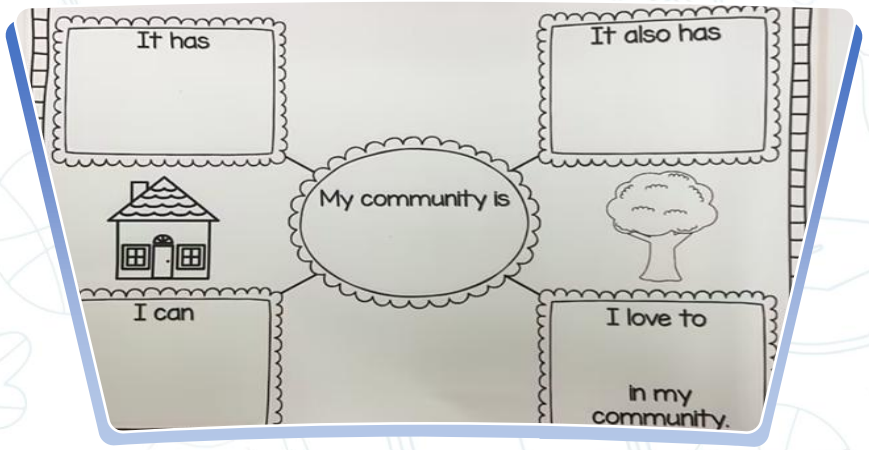
Students explore deeper questions, such as “why are communities are important?”, “what do I want to be when I grow up” and “who are community members. This stage emphasizes creativity and problem-solving.

5.Making Conclusions

Inquiry Cycle

4.Going Further

5.Making Conclusions



Students began to reflect their learning from the unit. Students made a community reflection book. This stage emphasizes connection and reflection skills.

6.Taking Action

Inquiry Cycle

5.Making Conclusions

6.Taking Action

Students apply their learning by taking actions in their community, such as visiting various buildings related to the unit. This stage allows students to take **ownership** of their learning and contribute to their community.

UOI

1. Firefighter
2. Police Officer
3. Doctor
4. Teacher

short e

says /e/

like elephant, egg.

Spelling

Every week, we study words that are connected to our UOI and phonics

English

Reading – read books about community helper, such as “The Red Hat”.

Writing – students wrote about what they wanted to be when they grow up.

Speaking & Listening – students role play and act out different community helpers in class.

Subject integration

Art

During art class students made different community helper drawing and figurines.

Math

Know the quantity in the community, know the direction and position in the community.

Social Studies

Cultural connections – Different community helpers and their roles within the community.

Assessment

Parent Signature:

Unit 1- How We Organize Ourselves- Communities

Class : _____ Teacher : _____ Date : _____

Please see the assessment task from Unit 1 Summative Assessment.

具体任务请详见另一任务纸 Unit 1 Summative Assessment.

	E	M	A	B
Understanding the concepts· Form 形式	☐ Can explain how our community is organized with lots of details and examples. 非常清楚地理解每个社区帮助者的职责和他们怎样把工作做好的.	☐ Can describe different parts of our community and how they work together. 了解一些每个社区帮助者的职责和他们怎样把工作做好.	☐ Can talk about some parts of our community. 对于每个社区帮助者的职责和他们怎样工作的理解有限.	☐ Requires additional support to identify parts of our community. 需要额外的支持来识别我们社区的各个部分.
Connection 联系	☐ Fully understands how different roles work together in the community to create a happy, safe and healthy place. 完全理解创建一个快乐，健康，安全的社区是需要不同的角色在一起工作的.	☐ Can connect community roles to what people do to help each other. 对于创建一个社区需要不同的人在一起的只有一点理解.	☐ Shows limited understanding of the people needed to build a community. ☐ Can make some simple connections to community roles. 对于需要人去怎样创建一个社区的理解只有一点.	☐ Doesn't make any connections to community roles. 对社区角色没有任何联系
Responsibility 责任	☐ Provides a comprehensive list of responsibilities within the community, with detailed examples and explanations. 提供了社区内责任的全面清单，并附有详细的例子和解释.	☐ Clearly identifies several responsibilities within the community with examples 清楚地识别社区内的几项责任，并给出例子.	☐ Identifies some responsibilities but lacks detail or accuracy. 识别了一些责任，但缺乏细节或准确性.	☐ Identifies few or no responsibilities within the community. 对社区角色没有很多联系.

Our assessment focuses on students' ability to demonstrate understanding of communities and apply their learning by taking actions within their own communities.

Using subject-specific concepts

There are many opportunities in developing conceptual understanding to encounter, engage with, utilize and develop understanding of subject-specific concepts, knowledge, and skills. Planning for learning using conceptual lenses supports meaning-making and transferability, and helps learners to connect to and strengthen their knowledge and the process of how they learn thereby developing their conceptual understanding.

So, what does this mean for PYP practice?

Using subject-specific concepts

Guidance in PYP: From principles into practice states the following:

- All learning and teaching in a PYP setting, including subject knowledge acquisition, is through **concept-driven inquiry**.

- Concepts can be **subject-based and/or transdisciplinary**.

- Teachers identify **authentic links** between subject area concepts, knowledge and skills and the programme of inquiry and help make them explicit to students.

Using subject-specific concepts

Guidance in PYP: From principles into practice states the following:

- Single-subject teachers and support teachers **connect learning through the programme of inquiry's central ideas**, wherever the learning is authentic.

- Single-subject teachers **plan their own conceptual inquiries** that connect to the grade/year-level central ideas through the specified concepts.

- The **exploration and re-exploration** of concepts lead students towards an appreciation of ideas that transcend subject boundaries.

Concepts

This list illustrates that there are literally thousands of concepts in all subject areas, some specific (Micro-Concepts) and others that are broad and transdisciplinary (Macro-Concepts). Concepts are abstract, timeless and universal. By using conceptual lenses, we can take factual knowledge learning to a transferable level.

Science	Social Studies	Literature (Themes)	Reading Listening	Writing	Drama	Mathematics	Music	Health	Physical Education	Art
Change	Change	Change	Comprehension	Voice	Design	Addition	Aesthetics	Wellness	Space	Space
Systems	Systems	Systems	Response	Organization	Voice	Subtraction	Expression	Physical	Movement	Tone
Order	Patterns	Patterns	Critical Stance	Fluency	Movement	Multiplication	Performance	Emotional	Action/reaction	Shape
Interactions	Interactions	Interactions	Purpose	Word Use	Character	Division	Composition	Mental Health	Energy	Colour
Interdependence	Interdependence	Interdependence	Perspective	Conventions	Personality	Fraction	Production	Social Health	Flexibility	Shade
Organisms	Culture	Perception	Reflection	Grammar	Conflict	Angles	Rhythm	Disease	Fitness	Texture
Energy	Chronology	Character	Criticism	Mechanics	Emotions	Scale	Melody	Nutrition	Balance	Response
Waves	Governance	Passion	Motivation	Format	Physicality	Area	Harmony	Exercise	Speed	Appreciation
Heat	Power	Love / hate	Connection	Onomatopoeia	Influence	Value	Timbre	Safety	Strength	Form
Light	Environments	Family	Evaluation	Alliteration	Body Position	Perimeter	Dynamics	Choices	Endurance	Proportion
Sound	Identity	Conflict	Judgment	Symbolism	Action/Reaction	Pattern	Articulation	Responsibility	Patterns	Composition
Matter	Production	Power	Text evidence	Text Structure	Balance	Function	Mood	Abuse	Cooperation	Arrangement
Habitat	Distribution	Identity	Synthesis	Details	Timing	Space	Form	Neglect	Conflict	Viewpoint
Population	Consumption	Survival	Audience	Rhythm	Space	Shape	Tempo	Change	Teamwork	Perspective
Transfer	Civic Values	Fear	Entertainment	Flow	Direction	Notation	Mood	Growth	Motion	Manipulation
Interaction	Human Rights	Inner Conflict	Explanation	Cadence	Tone	Time	Pattern	Relationships	Range	Aesthetic
Reproduction	Perspective	Courage	Research	Audience	Pitch	Parallel	Pitch	Feelings	Force / power	Contrast
Properties	Behaviour	Friendships	Connections	Persuasion	Dialect	Unit	A capella	Behaviors	Locomotion	Illustration
Conductivity	Customs	Jealousy	Inference	Explanation	Expression	Number	Accelerando	Rights	Competence	Construction
Erosion	Landforms	Tolerance	Imagery	Information	Articulation	Ratio	Adagio	Responsibilities	Manipulation	Abstract
Cycles	Scarcity	Idealism	Genre	Communication	Pronunciation	Proportion	Beat	Stress	Composition	Balance
Weathering	Immigration	Isolation	Text Structure	Style	Pattern	Angle	Crescendo	Coping	Tactics	Craft
Insulation	Migration	Greed	Directionality	Emotion	Beat	Probability	Descant	Self-esteem	Safety	Technique
Motion	Inventions	Sacrifice	Self Correction	Cause	Mood	Order	Diminuendo	Communication	Stamina	Communication
Force	Trade	Compromise	Prediction	Effect	Function	Quantity	Discord	Family	Strength	Transformation
Adaptation	Freedom	Control	Sequencing	Punctuation	Feeling	Measurement	Forte	Community	Suppleness	Relationship
Ecosystem	Leadership	Justice	Character	Purpose	Setting	Congruency	Legato	Sexuality	Determination	Method
Habitat	Government	Humanity	Cause	Editing	Costume	Symmetry	Polyphonic	Life Cycle	Sequence	Graduation
Balance	Justice	Inhumanity	Effect	Procedure	Lighting	Tessellation	Riff	Needs	Dynamics	Referencing
Extinction	Order	Identity	Problem	Atmosphere	Production	Inverse	Scale	Conflict Resolution	Direction	Scale
Organism	Equality	Culture	Solution	Spelling	Staging	Integer	Sequence	Anxiety	Relationships	Expression
Organs	Imperialism	Perspective	Climax	Form	Improvisation	Factor	Syncopation	Lifestyles	Connection	Light
Conduction	Urbanization	Innocence	Skimming	Phrases	Relationships	Average	Voice	Fitness	Change	Pointillism
Convection	Needs and Wants	Escape	Summary	Metaphors	Connection	Variable	Harmony	Body Image	Competition	Line
Diversity	Choice	Deception	Meaning	Possession	Collaboration	Classification	Tonality	Connection	Technique	Movement

Concept- A Mental construct that frames a set of examples sharing common attributes; concepts are timeless, universal, and abstract (to varying degrees). Specific examples (e.g., cycles, diversity, and interdependence) of the concept may vary, but the attributes are the same. For example, a cycle is a timeless concept. Although specific examples of a cycle differ-water cycle, rock cycle, historical cycle-they all have the attribute of being a repeating pattern.

Macro-Concepts- Key/Significant concepts, transfer over subject/content areas, are very broad. Macro-concepts are often called "integrating concepts" because they can collapse many different examples. They provide the breath of understanding.

Micro-concepts- Reflect the deeper knowledge of the specific discipline. They are content specific. Micro-concepts provide the depth of understanding.

Timeless, Universal- Consider the transferability of ideas through time and across cultures or situations.

Abstract- An idea that is not related to any specific instance or object. It can be potentially applied to many different situations or objects.

Conceptual Lens- The integrating, focus concept for a topic-based study. The conceptual lens pulls thinking to the conceptual and transferable levels, and integrates thinking between the factual and conceptual lens.

Created by Ross Dawson

Erickson, H. Lynn, and Carol A. Tomlinson. Concept-based Curriculum and Instruction for the Thinking Classroom. Thousand Oaks, CA: Corwin, 2007. Print.

Erickson, H. Lynn. Stirring the Head, Heart, and Soul: Redefining Curriculum and Instruction. Thousand Oaks, CA: Corwin, 1995. Print.

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Practice sharing in specific subjects

Concept-based learning Practice in Chinese

Concepts related with WELL-BEING:
Responsibility、Causation
Subject： Chinese
Reading ： 绿山墙的安妮
Subject related concepts: Inner conflict, Courage, friendship

Guiding questions:

1. What causes well-being? And what result does well-being bring?
2. What kind of responsibilities are taken? Can these responsibilities make people feel happier?
3. What is the relationship between the inner conflict with the redefining of relationship, and further the following actions?

万科双语学校

Unit 1:Who We Are--- Well-Being

语文：UOI 融合阅读

《绿山墙的安妮》Anne of Green Gables

姓名：_____班级：_____

“well-being”指我们身心舒服、开心的状态。请阅读《绿山墙的安妮》，结合“为什么会这样（原因）”“该做什么（责任）”，完成以下任务，探索安妮和身边人的“well-being”秘密吧！

找一找：安妮的 “well-being”变化与原因

安妮来到绿山墙后，有时开心，有时难过。请从书中找 3 个不同的情节，填一填“她的心情”“为什么会这样（原因）”，并画 “😊”（开心）或“😔”（难过）标注她的 “well-being”状态。

情节例子（如：“第一次见到玛瑞拉”“在学校和黛安娜做朋友”“不小心染坏头发”）	安妮的心情（开心 /难过）	心情的原因（为什么会开心/难过？）	“well-being”标注
1.			
2.			
3.			

想一想：责任让“well-being”变更好吗？

责任就是“自己该做的事”。书中安妮和马修、玛瑞拉都在承担责任，这些责任影响了大家的“well-being”。

安妮曾经犯过错（比如打碎果酱瓶、说错话），她后来是怎么承担责任的？（举例说明）这份责任让她自己的 “well-being”有变化吗？

_____

填一填：我的责任与“well-being”

就像安妮一样，我们的责任也会影响自己和别人的“well-being”。请先圈出你平时承担的 3 个责任（可补充），再说说每个责任带来的“well-being”变化：

□自己整理书包 □帮家人做家务 □ 和同学吵架后主动道歉 □ （补充：_____）

1. 我的责任：_____
带来的变化：让我自己_____（比如 “更安心，因为不会忘带东西”），让别人_____（比如 “妈妈不用帮我整理，能多休息”）。

2. 我的责任：_____
带来的变化：让我自己_____，让社会_____。

3. 我的责任：_____
带来的变化：让我自己_____，让环境_____。

回顾与收获：

1. 从安妮的故事里，你发现“承担责任”和“well-being（开心、舒服）”有什么关系吗？

_____

2. 如果你是安妮，当你做错事时，你会像她一样承担责任吗？为什么？

_____

_____

总结：

我们跟着安妮在《绿山墙的安妮》里探寻了 well-being 产生的原因和结果，还知道了生活中的责任和 well-being 息息相关。安妮的乐观、想象，她和家人朋友的温暖情谊，让她收获幸福，也让自己成长。我们也从自己的生活里找到了很多和责任、well-being 相关的事儿。希望大家能像安妮一样，保持乐观积极的心态，对自己、对他人、对社会负责，去创造属于自己的幸福生活！

第五单元

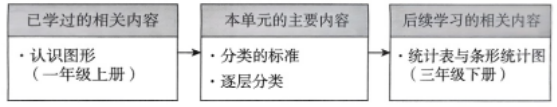
一、单元规划与分析

单元信息	学科	年级	学期	教材版本	章	起止页
	数学	二	1	沪教版	5	P71-P72（第 1 课时）

课时信息	课时	课题名称	对应教材内容	要点分析
	1	分类	P71-72 例 1	理解单一标准分类，体会标准不同结果不同
	2	逐层分类	P73-74	经历逐层分类过程，感知分类的层次性

学习领域单元主题	数与代数	☐数与运算 ☐数量关系
	图形与几何	☐图形的认识与测量 ☐图形的位置与运动
	统计与概率	☐数据分类 ☑数据的收集、整理与表达 ☐随机现象发生的可能性
	综合与实践	☐主题活动
核心素养主要表现	☐数感 ☐符号意识 ☐空间观念 ☐几何直观 ☑推理意识 ☐量感 ☐运算能力 ☑数据意识 ☐模型意识 ☑应用意识 ☐创新意识	
重点渗透数学思想方法	☐抽象 ☑分类 ☐集合 ☐对应 ☐演绎 ☑归纳 ☐类比 ☐转化 ☐极限 ☐分析 ☐综合 ☑比较 ☐假设 ☐数形结合 ☐模型 ☐方程 ☐函数 ☑统计 ☐符号化 ☐其他	

知识体系



单元教学目标	1	能根据事物的特征制订分类标准，初步学会依据标准对事物进行分类。
	2	能根据事物的特征制订分类标准，初步学会依据标准对事物进行分类。
	3	经历逐层分类的过程，运用图画、表格、文字等方式记录并描述分类的结果。
	4	感知事物的共性和差异，形成初步的数据意识，感受数学与生活的联系。

单元作业目标	序号	描述	学习水平
	1	能依据单一标准对给定物品进行分类并记录。	理解
	2	能发现同一组物品的多种分类标准并进行分类。	掌握
	3	能按照指定顺序进行逐层分类并记录结果。	掌握
	4	能自主选择分类顺序进行逐层分类并描述过程。	应用

三、课时教学与作业设计

课题	分类	教学内容	P71-72	教学设计	
教学目标	层次一（基础理解）：能观察发现事物的多种特征，理解分类的基本概念。 层次二（方法掌握）：能依据单一标准对物品进行分类，并用表格记录结果。 层次三（多元应用）：能发现同一组物品的多种分类标准并进行分类。 层次四（关联理解）：理解"分类标准不同，结果不同"的因果关系。 层次五（迁移应用）：能将分类思想应用于生活情境，理解标准选择的实际意义。				
重点难点	重点：能根据事物的特征制订分类标准，初步学会依据标准对事物进行分类。 难点：能用语言简单描述分类的过程。				
素养表现	数据意识、应用意识				
	分类 分类要依据分类的标准 标准不同⟶结果不同 颜色　　黄色　蓝色				

教学环节及对应目标	学习活动	设计意图与评价关注点
一 情境引入 从"家庭"出发（SOLO：前结构 -> 单点结构）	1. **创设情境**：视频中奶奶找扣子遇到困难求助丽丽帮忙。 2. **提出问题**：混乱的扣子如何整理得更清楚?（教材 P71 图） 3. **引出课题**：学生提出"分类"相关语言。（教师板贴分类） **SOLO目标**：从真实需求出发，唤醒学生的前结构经验，并引导他们进入"需要一个标准"的单点结构思维层面。	**设计意图：** 从生活情境出发，激发学生分类的内在需求。 **评价关注点：** 学生是否能从混乱中产生整理需求。
二 探究建构 扣子"分类标准"（SOLO：多点结构 -> 关联结构）	**活动 1：发现特征（单点结构）** 1. 引导学生观察扣子特征："这些扣子哪里不一样？" 2. 学生发现颜色、形状、扣眼数量特征。（教师板贴） **SOLO 目标**：使学生进入能识别与分类相关的单点结构思维层面，为后续分类活动积累特征认知基础。 **活动 2：单一标准分类（单点结构——多点结构）** 1. 学生选择一种标准在希沃白板中操作演示。 2. 指导记录方法：填写分类标准、类别、数量。 3. 教师强调规范语言："我按__（标准）分，分成了__（类别）和__（类别）。" **SOLO 目标**：助力学生从聚焦单一分类标准的单点结构，向关注分类标准与结果等多要素的多点结构思维过渡，初步建立单一标准分类的完整认知。	**设计意图：** 遵循"发现属性-应用标准-对比归纳"的路径，让学生亲历思维从单一到多元再到关联的飞跃。 **评价关注点：** 1. 能否多角度发现特征 2. 能否按标准分类并记录 3. 能否理解标准与结果的因果关系

Macro concepts: Causation; Subject-specific Concepts: Classification, Division

Approaches to teaching

Based on inquiry

A strong emphasis is placed on students finding their own information and constructing their own **understandings**.

Focused on conceptual understanding

Concepts are explored in order to both deepen disciplinary understandings and to help students make **connections** and **transfer** learning to new contexts.

Developed in local and global contexts

Teaching uses real-life **contexts** and examples, and students are encouraged to process new information by **connecting** it to their own experiences and to the world around them.

Focused on effective teamwork and collaboration

This includes promoting teamwork and collaboration between students, but it also refers to the **collaborative** relationship between teachers and students.

Designed to remove barriers to learning

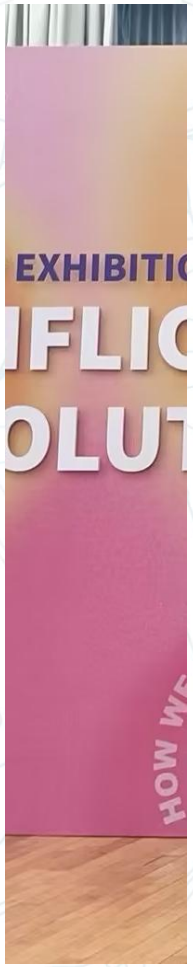
Teaching is **inclusive** and values **diversity**. It affirms students' identities and aims to create learning opportunities that enable every student to develop and pursue appropriate **personal goals.**

Informed by assessment

Assessment plays a crucial role in supporting, as well as measuring, learning. This approach also recognizes the crucial role of providing students with **effective** feedback.

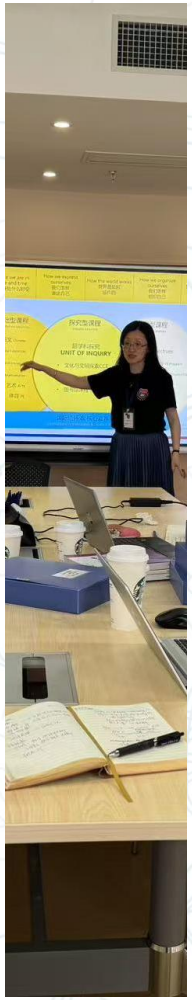
What do we do to make it happen?

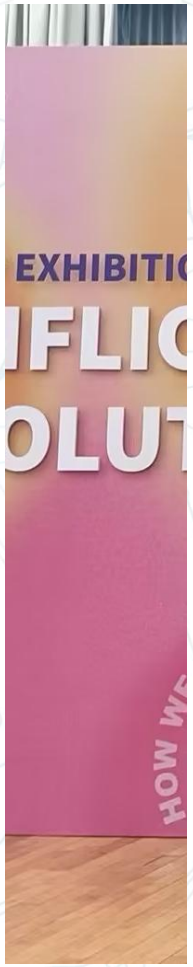
Pedagogical leadership regular meeting



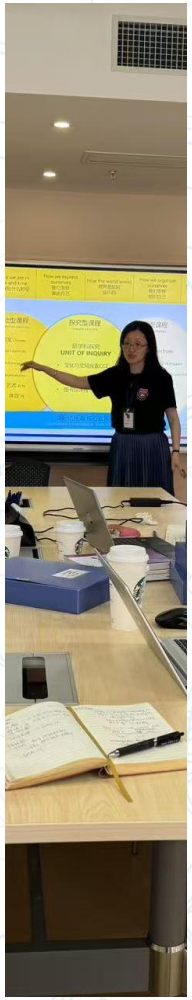
INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Pedagogical leadership regular meeting

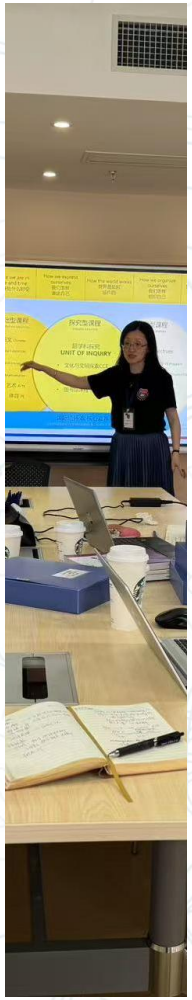


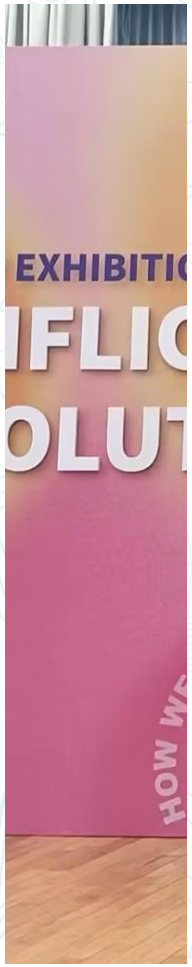


Pedagogical leadership regular meeting



Pedagogical leadership regular meeting





Teachers co-design curriculum

INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Student Connections

Kindergarten and Primary School Connection：House Rubik's Cube Gift on the first day of school

Student Connections




The K3 students visited the primary school as part of the "Growth and Change" unit, interacting with G2 students to learn about the differences between kindergarten and primary school.

Student Connections

G1 students visited the youngest siblings of the Vanke Bilingual K12 Family in the first Community Unit.

In order to make it happen, the most important element lies on teachers

PD to Empower Teachers

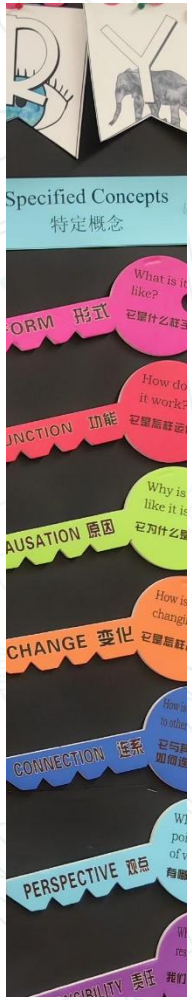
Culture building on campus

Building NEW culture-Environment

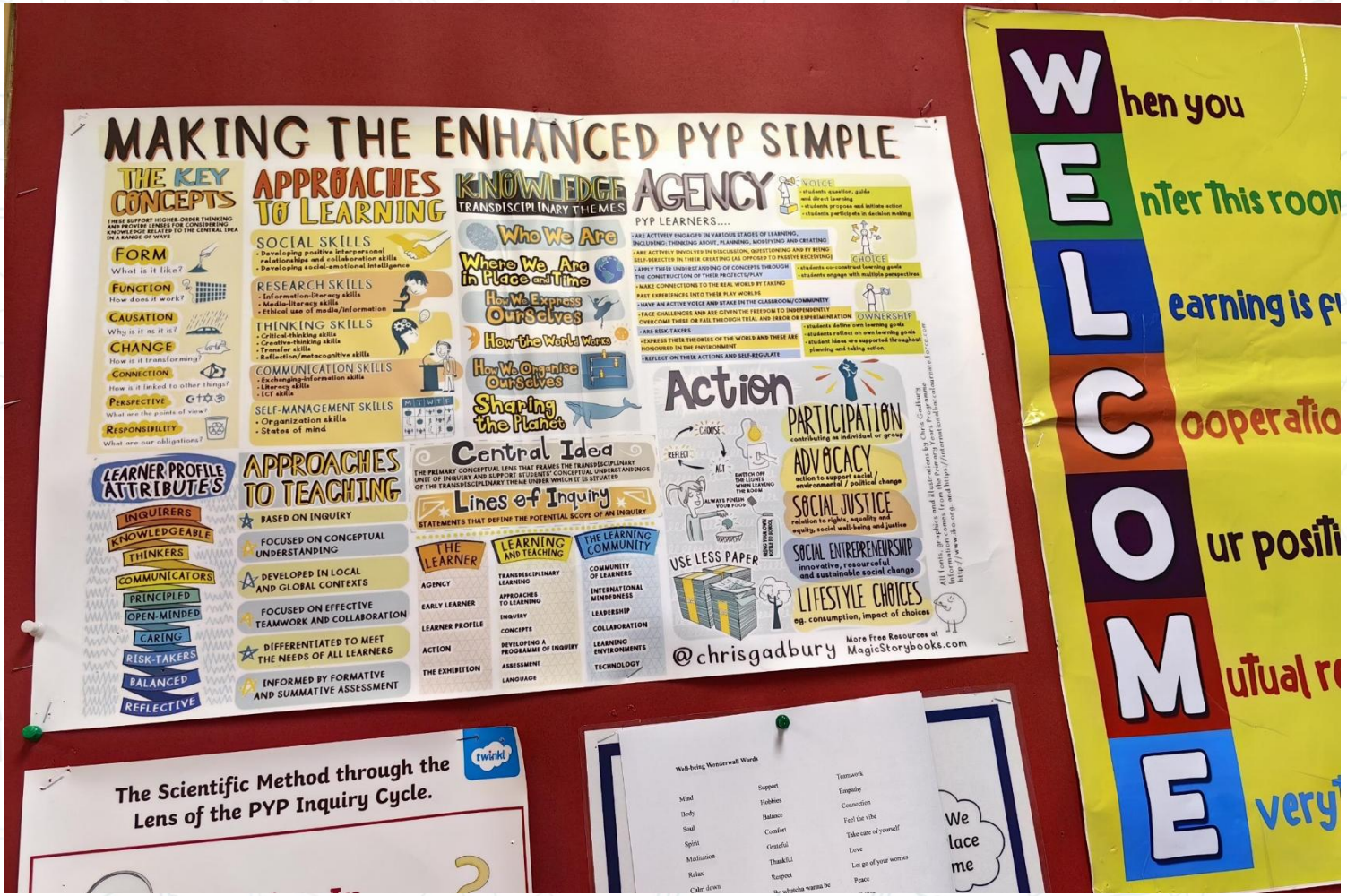
INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Building NEW culture-Environment

Building NEW culture-Environment



Building NEW culture-Environment

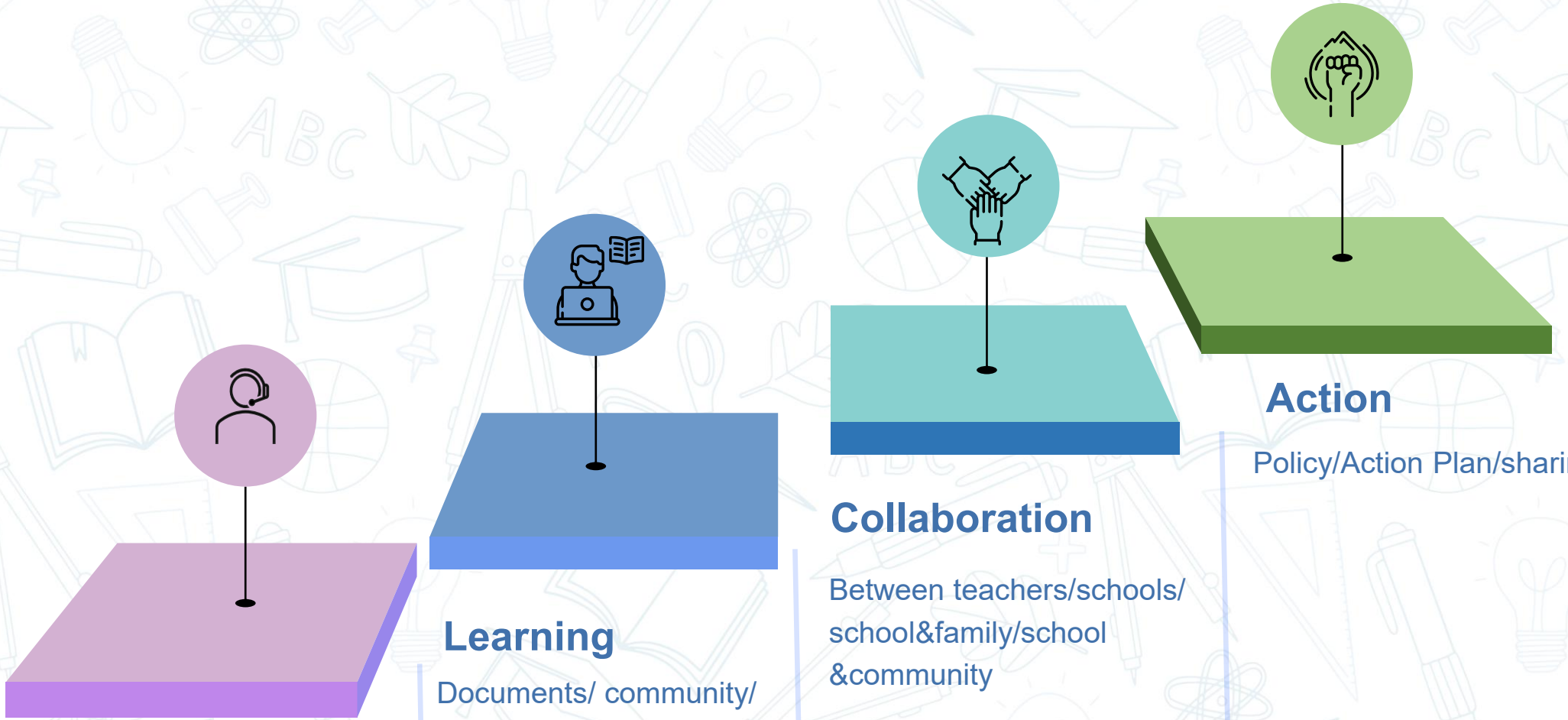


INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Building NEW culture-Environment

INSPIRE UNLIMITED POTENTIAL DEVELOP A GLOBAL PERSPECTIVE

Building NEW culture- organization



Communication

Teachers/Parents/Students

Learning

Documents/ community/ Teachers/Agency

Collaboration

Between teachers/schools/ school&family/school &community

Action

Policy/Action Plan/sharing

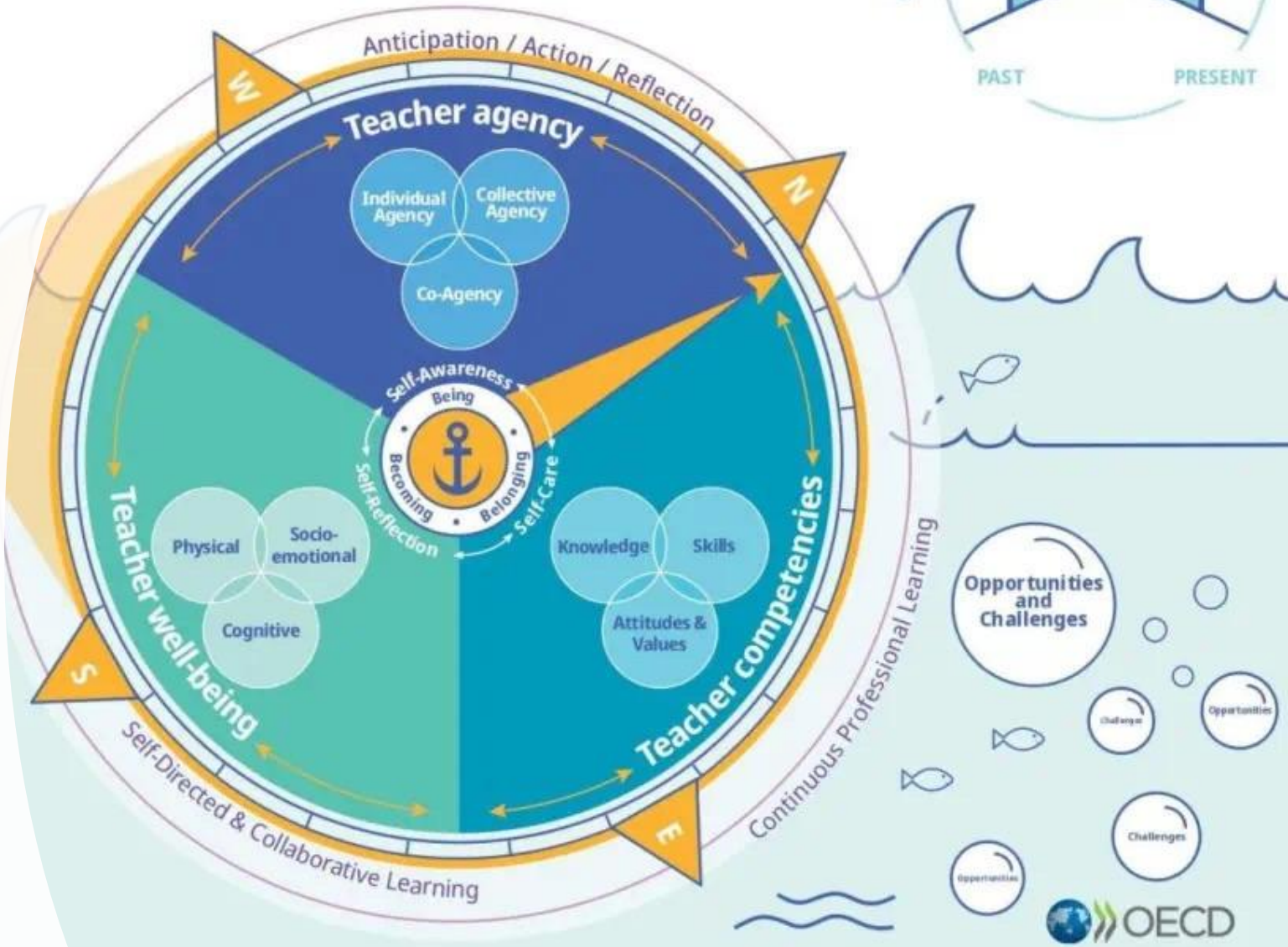
Building New Culture-
Remodeling Teacher Profession

Future Teacher:

- **Agency, Wellbeing,**

  Competencies

- **Being, becoming, belonging**
- **Opportunities and challenges**



Concept-based learning is not a myth, it is there every day. What we need to do is to build the conceptual thinking on students and teachers.

Thanks

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