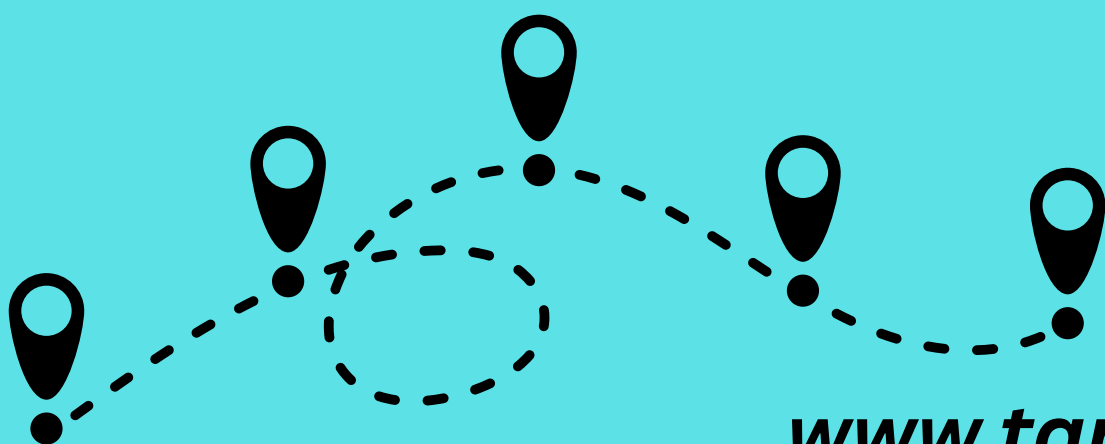


"What if your Subject continuum wasn't just a scope and sequence... but a roadmap for inquiry, understanding, and agency?"

Discover how the KUD model transforms the PYP science continuum by connecting what students will Know, Understand, and Do—

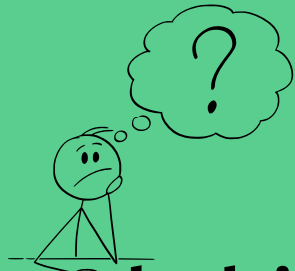


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WHY ?

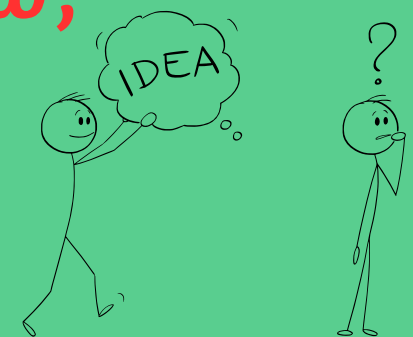
“When IB released the subject continuums, it offered powerful learning outcomes and conceptual understandings across phases. But I found myself wondering:

How do we turn this into something practical—something teachers and students can use every day?



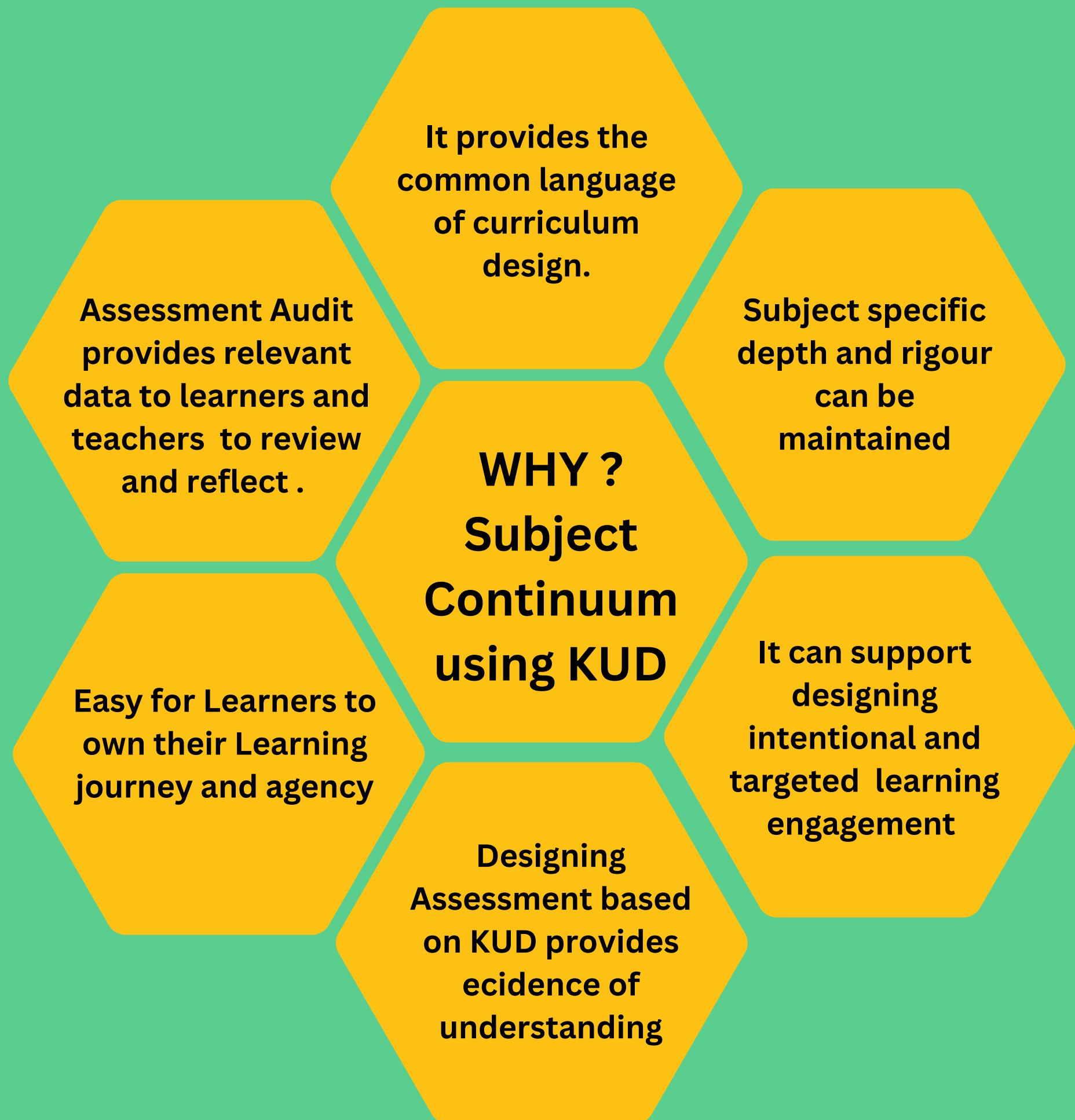
I turned to hexagonal thinking to explore how these pieces connect. Patterns emerged. And with it, a question:

What if we designed our scope and sequence using the KUD model—What students will Know, Understand, and Do?



That was the spark. The KUD model became the framework I needed.”

My Hexagonal Thinking



“The result? A living document that connects the dots between skills, concepts, and outcomes—across strands, phases, and TD Themes.

→
@Tannu Jain

Strand - Living Thing

Phase	What Will learners KNOW	What will Learners UNDERSTAND	What will Learners DO	Targeted Theme
Phase 1	Basic needs of living things- Names of common plants/animals	Living things go through changes and need certain things to survive.	Identify/sort living vs. non-living things- Observe animals/plants in their environment	Who we are/ Sharing the Planet.
Phase 2	External features and basic needs of plants/animals- Environmental effects on living things	Environments meet the needs of organisms, and changes in environment affect survival.	Describe external features- Collect data on plant/animal growth	Sharing the Planet
Phase3	Life cycles- Plant/animal adaptations- Food chains/webs	Patterns in how organisms grow, survive, and interact with one another and their environment.	Design investigations- Predict effects of removing organisms from ecosystems	Sharing the Planet / How the World Works
Phase 4	Ecosystems, biodiversity, reproduction- Impact of human actions	Interdependence of living things and the role of humans in maintaining sustainability.	Model systems (e.g., food web)- Use evidence to support environmental action plans	Sharing the Planet



Strand - Earth & Space

Phase	What Will learners KNOW	What will Learners UNDERSTAND	What will Learners DO	Targeted Theme
Phase 1	Weather patterns- Day/night- Natural resources	Earth has patterns and cycles that affect daily life	Observe weather and seasonal changes- Identify natural resources	How the world works.
Phase 2	Earth's surface changes- Human use of resources- Quick/slow changes	The Earth changes over time due to natural processes and human actions.	Record erosion/weathering- Suggest ways to care for resources	Sharing the Planet / How we organize ourselves
Phase 3	Rotation/revolution- Conservation- Renewable/nonrenewable resources	Systems on Earth are interconnected and influenced by natural forces and human decisions	Model moon phases or Earth's orbit- Compare solutions for conservation challenges	Where We Are in Place and Time / How the World Works
Phase 4	Geology, atmosphere, sustainability- Human impact on systems	Scientific knowledge helps predict changes and informs sustainable action.	Create environmental action plans- Use evidence to argue for sustainability strategies	Sharing the Planet

Strand - Physical & Chemical Sciences

Phase	What Will learners KNOW	What will Learners UNDERSTAND	What will Learners DO	Targeted Theme
Phase 1	Properties of objects- Basic forces (push/pull)- Light and sound	Objects have observable properties and can change in different ways.	Sort/classify by properties- Explore sound/light using simple tools	How the World Works
Phase 2	States of matter- Simple mixtures- Energy sources	Matter and energy behave in predictable ways.	Measure temperature/weight- Conduct simple change experiments	How the World Works
Phase 3	Energy forms and transfers- Physical/chemical changes	Systems transfer energy and materials in observable and measurable ways.	Design fair tests- Record and compare results in tables/graphs	How the World Works
Phase 4	Conservation of matter/energy- Energy transformations- Sustainable technologies	Scientific knowledge helps explain how materials and energy behave and can be used responsibly.	Build/test models (e.g., solar oven)- Analyze environmental impact of materials	How the World Works / Sharing the Planet



"KUD isn't just a planning tool—it's a bridge between concepts, skills, and action.

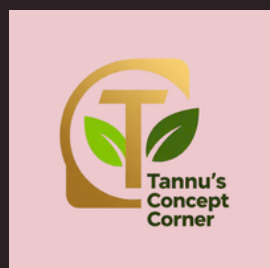
It is not a checklist—but a progression toward deeper thinking, purposeful action, and authentic understanding."

🎯 It's about clarity, intentionality, and empowering learning that lasts.

Let's move from...

Planning >>>> Purpose.
Scope >>>> Significance."

🔄 it is not about Coverage but about Connection.



Tannu Jain

Concept based trainer *and*
PYP enthusiast

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