



Cultures of Thinking in Action

My Fellows Journey in Learning

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What would it look like to adapt and change the roles of Student and Teacher?



What prompted me to explore this power of Making Thinking Visible?

As teachers, our shared target is deeper thinking. After applying Thinking Routines, watching the process many times, marveling as students took more responsibility for their thinking processes, I thought it was time to explore ways to give over more power to them.

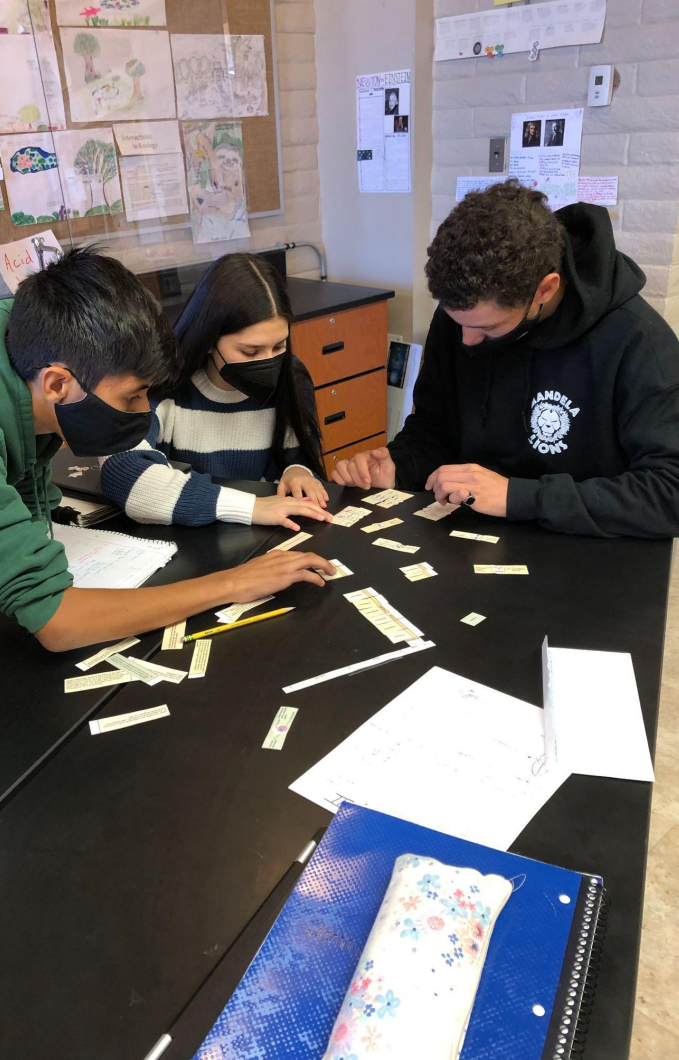
How did I get here?

My initial years of teaching began with the model of lecturer, he who imparts knowledge. The urge to approach learning differently arose early in my decades of learning and instructing. With the many age groups I got to teach, I saw that students wanted to feel the discovery for themselves. I encountered the work of a modern pioneer studying intelligence who proposed it was not a single field or phenomenon. Dr. Howard Gardner at Harvard had outlined 7 intelligences that constitute higher cognitive functioning. (Yes, 7, it was that long ago when I found this!) But I could not figure out how to apply the framework in the lab or teaching situation. I also needed to figure in how to promote deeper thinking with developmental differences in student ages from 9 to 90. AND align to external standards in University courses and International Baccalaureate High Schools.

Steps started last year



Post COVID I chose to focus on the Culture of Thinking created by the **Environment** of the Lab and Classroom. The online milieu can lend itself to a thought filled encounter with students, but I felt the occasion of going back into the physical learning space was the perfect opportunity to thoroughly look at how the space was arranged- what went on the walls, the spacing and orientation of tables, where I stationed myself and students in the room, diversifying the sub-spaces, and more.

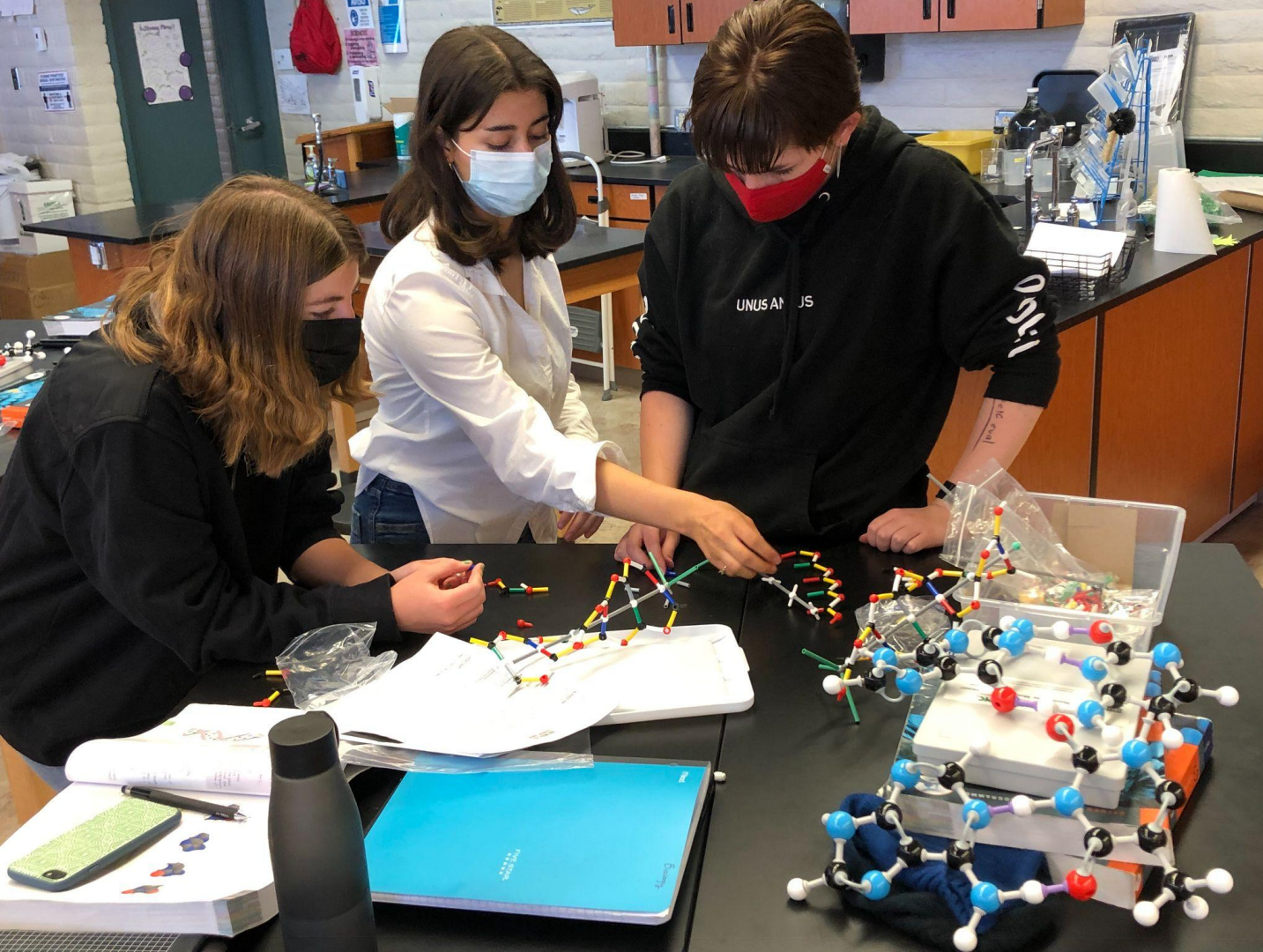


The Fellows at our school collectively considered and engaged the Cultures of Thinking Principle in Action that

Learning and Thinking are as much a collective enterprise as they are an individual endeavor.

Group Labs and Projects supported this Principle, and pushed each individual to more thorough reasoning through their report.





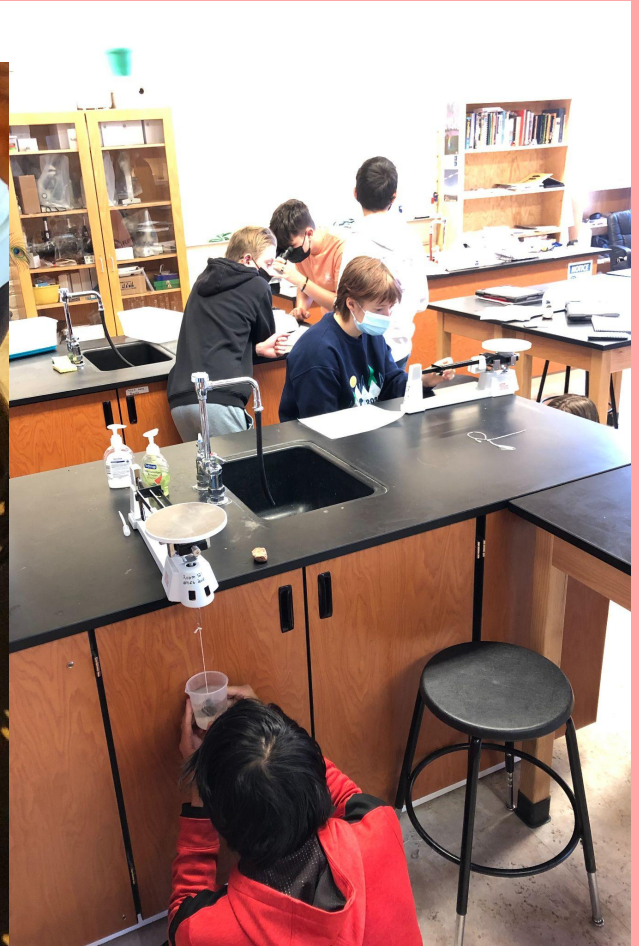
Peer Teaching and Learning was another of the methods used to manifest this Principle.

Students
were
involved
in
curating
what
went up
on the
walls.

Carbon Cycle



Including individual thinking time within group thinking-tests/grades are solo eventually, but





Even
Experimental
Scientists
learn together
better!

What do we do as CoTiA Fellows when we meet?

As part of our development as educators and students during our times together, we -

Consider data we gathered about our teaching process and student response

Engage Self Reflective observation of others teaching (Snapshot Observations)

Use Routines and conversation to gain insight into and improve our practice

Gain Understanding about different schools culture, constraints, and unique requirements

Supporting one another as we explore new ways of thinking about learning

Design and get feedback for instruction based on the Thinking Moves we want to bring out, the Understand Map, and the Culture we are cultivating.

Another strong move-Using the Understanding Map in designing lessons- Describing what's there in this case.



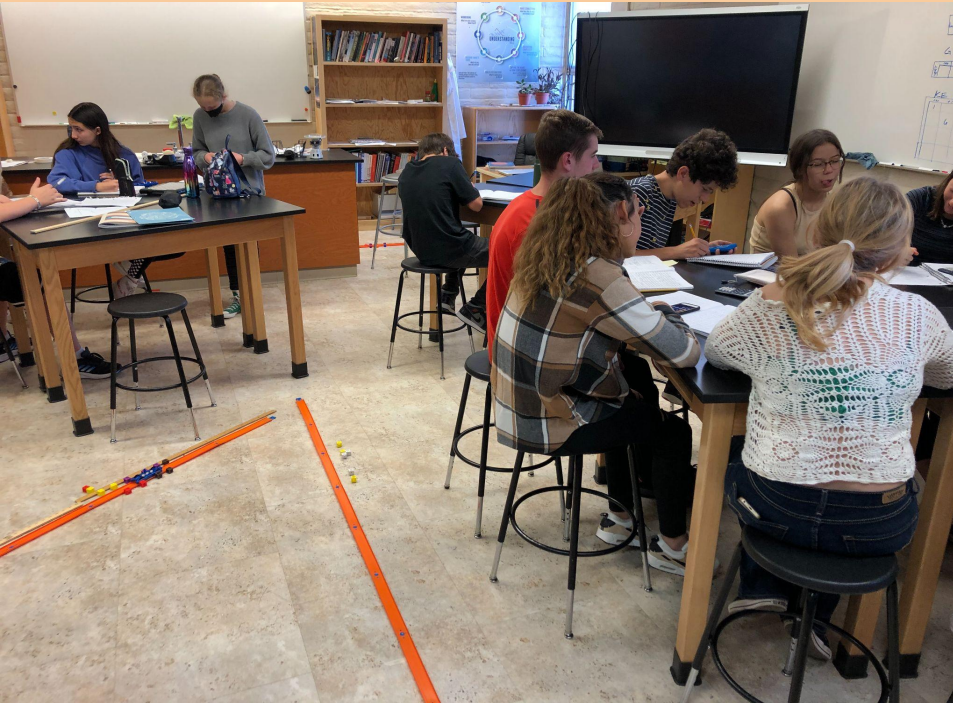
Student
Thinking on
the Walls

Ecological
Interactions

Generate,
Sort,
Connect,
Elaborate



Environment- Middle of the room is their focus, open and changeable





What did I find through the year?

Students took agency. More involvement in class, improved questioning and connectivity. Keeping the **Environment** open to them allowed them to step in.

A diversified Environment, that includes



A classroom with no straight passageways through, clustering of stations, no front, a center that is open and changeable, with walls showing their thinking.





Another Big Takeaway

Collaboration and interaction are fundamental to human nature, and when facilitated well, can multiply thinking products.



I also found the boundaries

of the types and complexity of material suitable for peer teaching, feedback and evaluation through collecting simple data & careful watching during my facilitation.

How am I continuing forward?



In the company of Colleagues,
coaches, students, and Fellows,



Giving and receiving
perceptive feedback
while staying in touch
with promoting student
agency

By adapting and changing the roles of Learners, of both the teacher and the student-

It's proved to be more fun to allow me to learn with them.

I lecture only briefly during class, setting the gestalt for them to amplify each other's process, which is fun to see.

They're clearly more excited about embracing new and challenging thinking.

The lab/classroom becomes more sincerely their habitat for expansion.

