

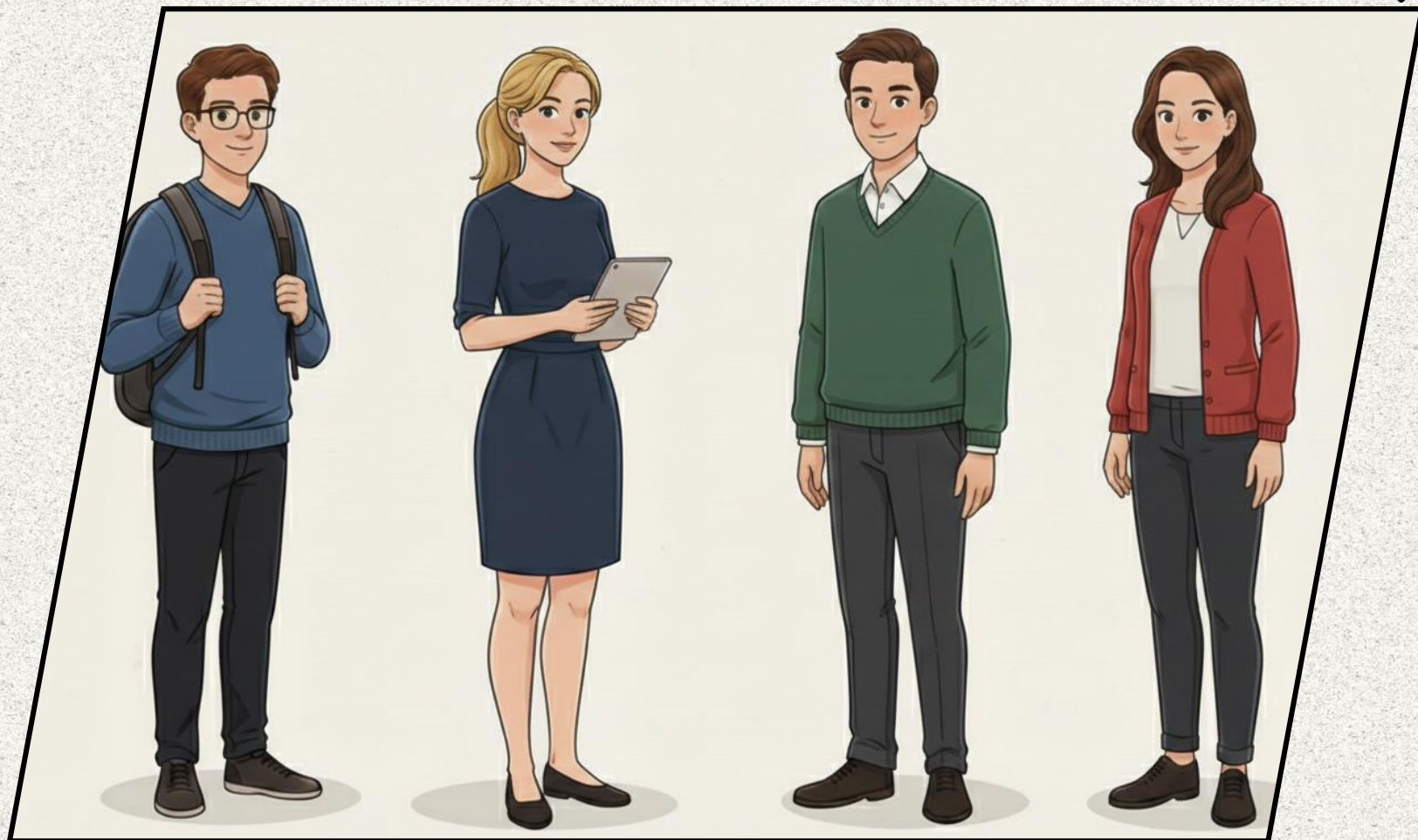


# **SUPPORTING SKILLS DEVELOPMENT BY MEANS OF AN INCLUSIVE MENTORING TRAJECTORY**

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<https://www.uhasselt.be/materiomics>

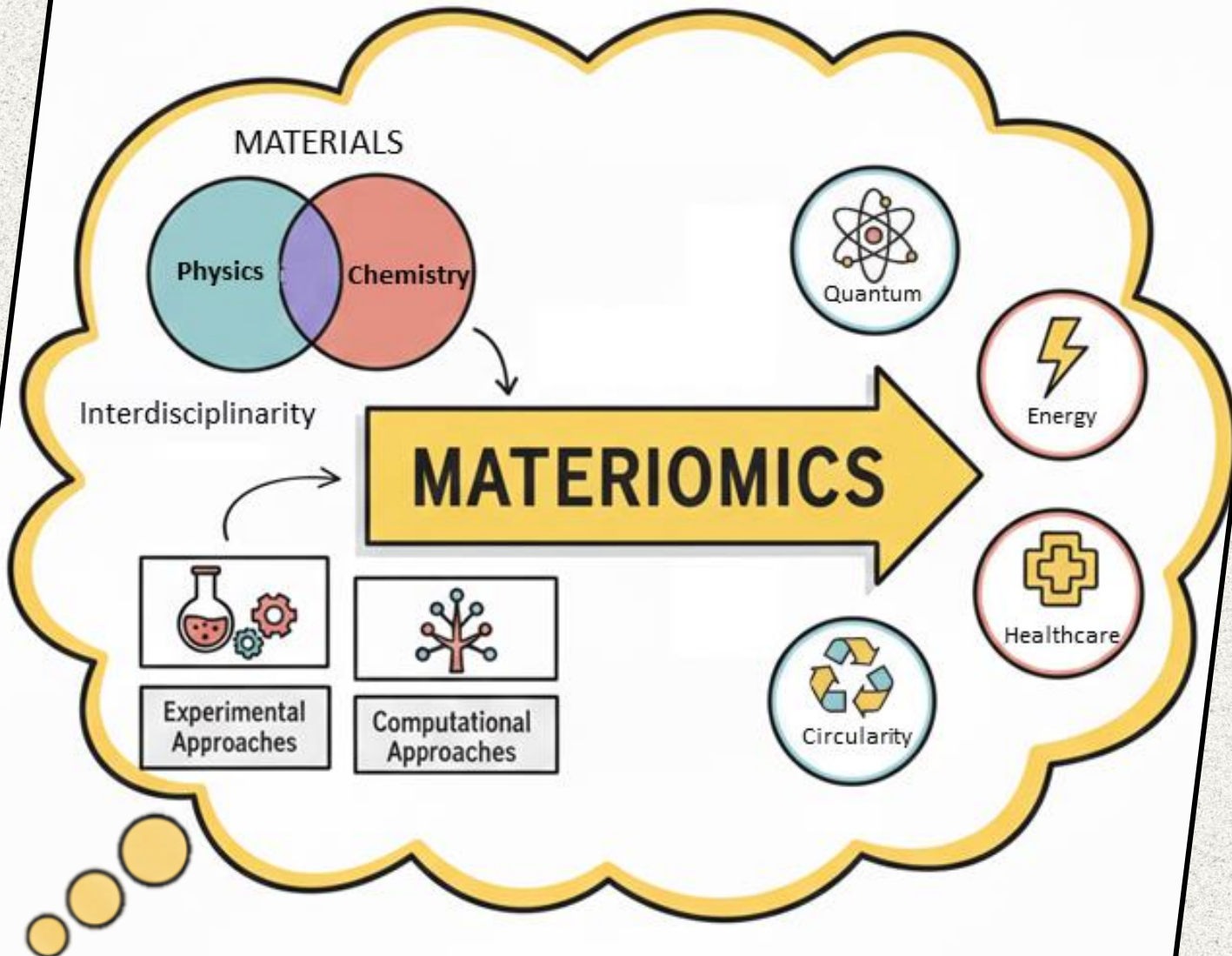




This story features from left to right: a first-year master's student in materiomics, a member of the educational support staff, and two professors teaching in the master in materiomics.



# WHAT IS MATERIONICS?

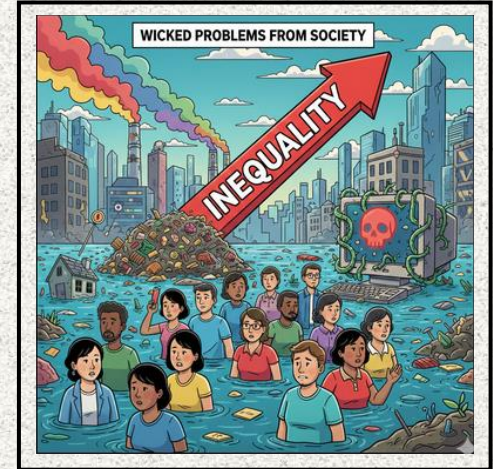




# HOW IT ALL BEGAN



AUTUMN 2020: CORONA PERIOD



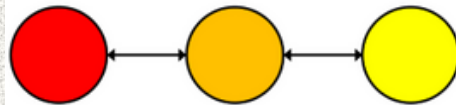
Transdisciplinary



Interdisciplinary



Multidisciplinary



Monodisciplinary

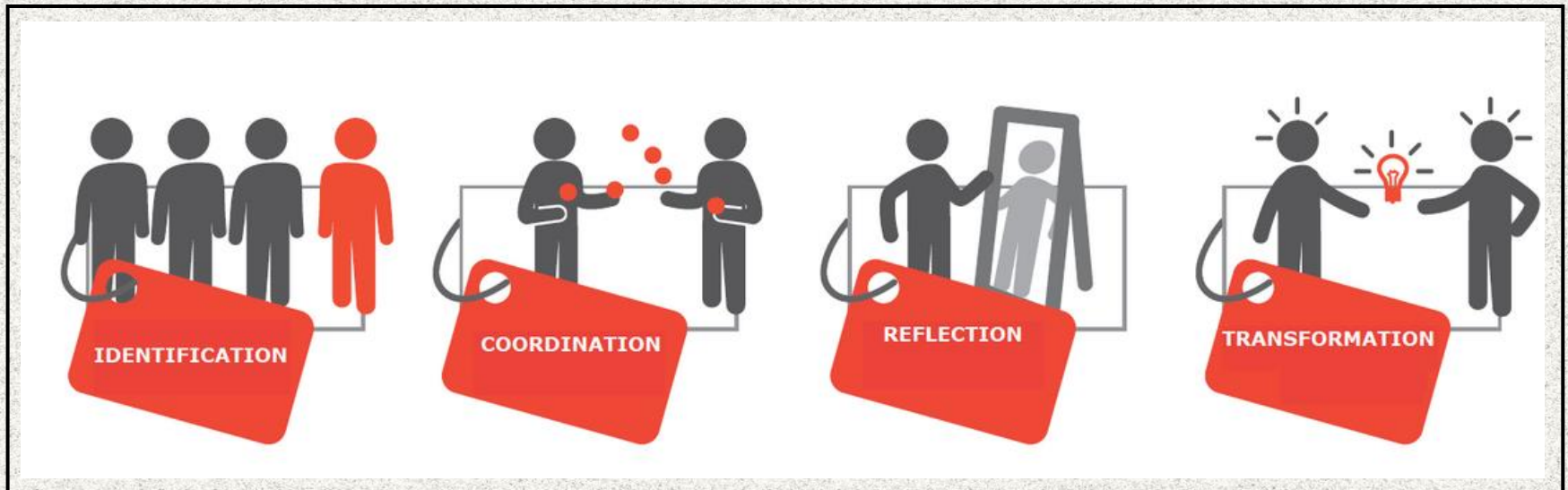
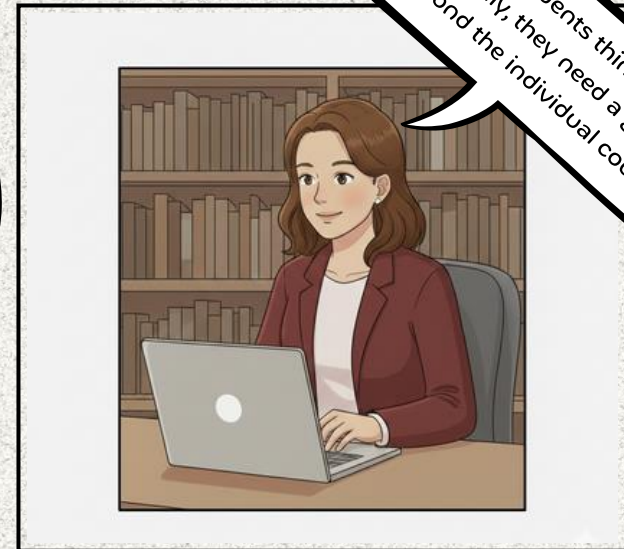
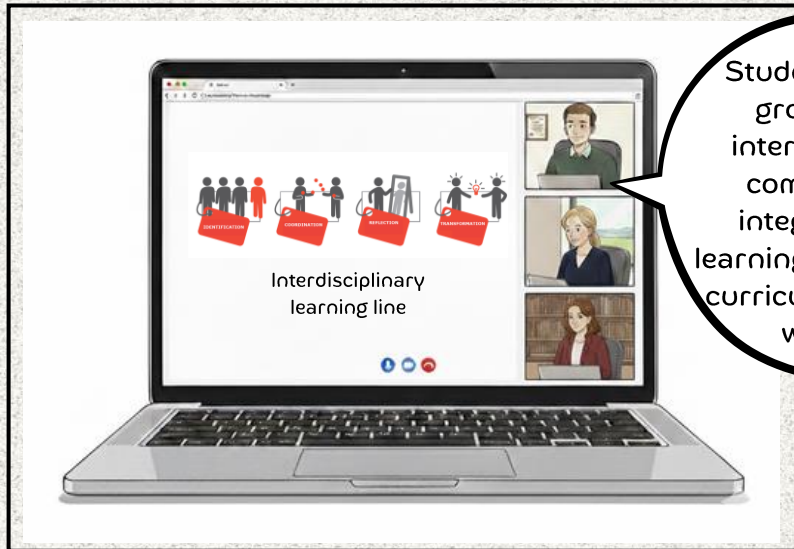


To tackle grand challenges, students must develop interdisciplinary competencies





# HOW IT ALL BEGAN





# CHARACTERISTICS OF THE MATERIOMICS MENTOR TRAJECTORY



- Goal:
  - track competency development
  - guidance in composing 2nd year study trajectory
  - informal feedback channel
- Each student is paired with a faculty mentor
- At least 5 mentor meeting during master program
- Growth-portfolio
- Pass/Fail



# INFORMING THE STUDENTS

ONCE UPON A DAY IN THE  
FIRST SEMESTER OF THE  
FIRST MASTER YEAR  
MATERIOMICS

Reflection is the fuel  
for your growth. Your  
mentor will help you  
get that engine  
started.

## Materiomics Mentor Trajectory

- Rice army samurai led mind Pivarmatory fanlights oil and.
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# INFORMING THE STUDENTS

## Growth portfolio

### 1. Self-reflection by means of a rubric

	Initiated	In development	As expected	Mastered
DC 2.8 I can generally identify which disciplines are involved in solving a complex materials problem.	I approach a materials problem from my own discipline.	I approach a materials problem from my own discipline and use other perspectives only when requested.	I approach a materials problem from all relevant disciplines and perspectives.	I independently seek knowledge from other disciplines and perspectives to solve a materials problem.

### 2. Open questions → learning cycle of Kolb

#### Reflecting

What did you specifically do regarding these competencies? Give an example of an assignment you completed. What went well? What could have been improved?

#### Thinking

What actions will you take to improve these competencies? What do you hope to achieve with these actions?

#### Acting

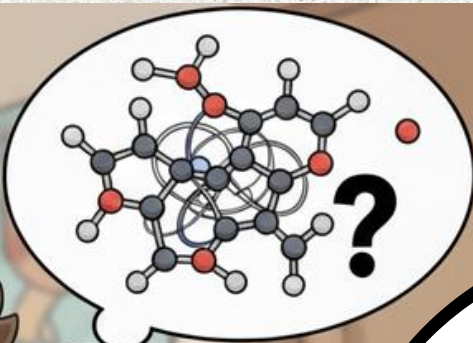
What specific actions are you going to start with?



# STUDENT PREPARATION



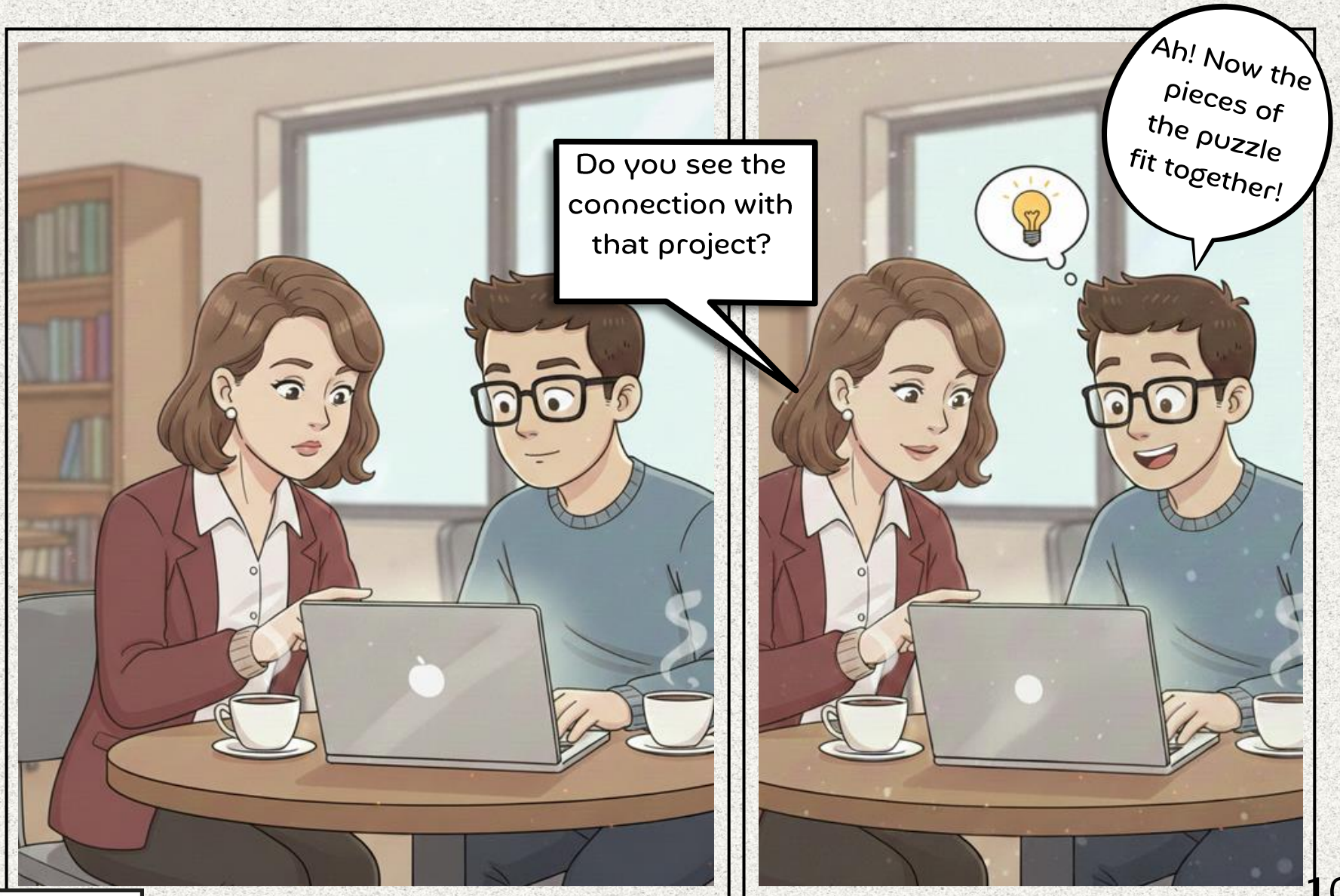
END NOVEMBER



Self-reflection?  
I'd rather model  
the vibrations of  
this molecule.



# THE FIRST MENTOR MEETING





# CHECK-UP



AFTER THE FIRST MENTOR  
MEETING

I found it  
difficult to  
reflect.

We need professional  
support.





# RECEIVED FEEDBACK STUDENTS



Informal setting



Approachable, open-minded,  
and easy to communicate with



Sincere interest of mentor



Added value for the program



Reflecting is difficult and  
also depends on students'  
confidence



Not all mentors had chance  
to review the portfolio before  
the mentor-mentee meeting



Mentors have many  
responsibilities making it  
difficult to match their  
schedules with that of the  
students



# RECEIVED FEEDBACK MENTORS



- + Overall positive experience
- + Students are open and honest
- + The growth portfolio ensures that students come prepared to the meeting and it also serves as a guide.
- + Helpful guided questions shared by educational team beforehand



- Written reflection was often too concise
- Students are too modest in their self-reflection
- Difficult conversation with introvert students
- Too little experience with mentoring/coaching
- 1-on-1 meeting not feasible when student populations grows



# THE LAST MENTOR MEETING \* \* \*



FROM PASSIVE STUDENT TO ACTIVE OWNER OF THEIR OWN CAREER PATH



# THE END



TWO YEARS LATER:  
GRADUATED

EXIT

**CAREER**

I am a  
Materiomicus with  
the required  
competencies for  
the labor market.



# THE END



In the master in materiomics, we believe that teachers should provide **mentorship and support** as students develop the skill of reflecting on their own learning. By means of **reflection** students turn into self-directed learners who can monitor progress, identify gaps, and adjust strategies for better outcomes.

Disclaimer: Images generated by Gemini, model Nano Banana

