

METAPHORISING SCIENCE TEACHERS

BACHELOR OF EDUCATION AND BACHELOR OF
SCIENCE (JUPAS CODE: 6119)

Updated in May 2023





Short thematic
talk: Metaphorising
science teachers



Admissions tips



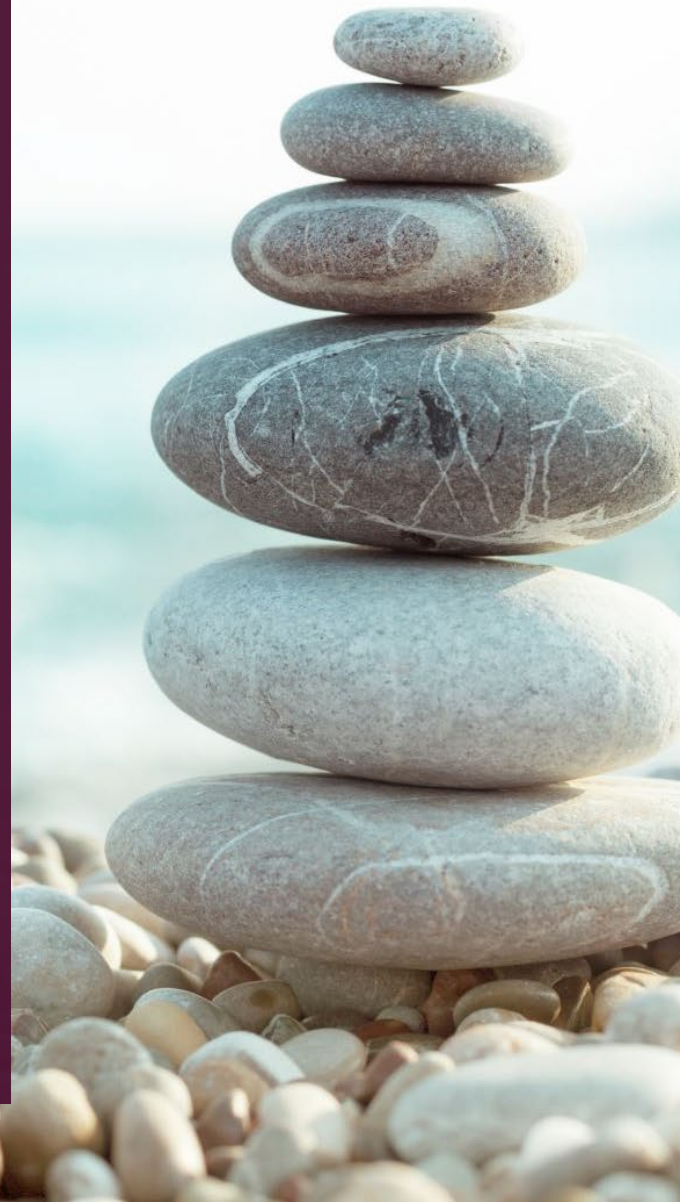
What our students
say



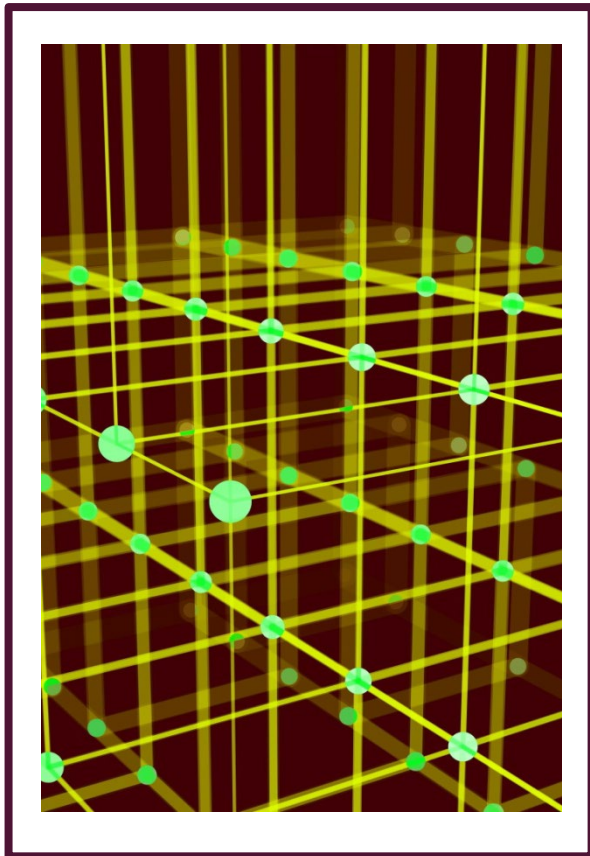
Q&A session

DESCRIBE A GOOD
SCIENCE TEACHER
(PLEASE USE KEYWORDS).

- “If a picture is worth a thousand words, a metaphor is worth a thousand pictures.” — Daniel Pink



METAPHOR



- Originates from a Greek word meaning “to carry across” (Schon, 1979).
- One can internalise one’s understanding of the *new situation* by relating new information directly to *prior experience* and thus metaphor offers a vehicle for learning about one’s own thinking.

METAPHORS: AS A TEACHER



Hamilton, E. R. (2016). Picture This: Multimodal representations of prospective teachers' metaphors about teachers and teaching. *Teaching and Teacher Education*, 55, 33-44.

A TEACHER IS

A gardener

A juggler

A second
parent

A tour guide

A superhero

A compass

A salesman
aiming to satisfy
customers

A conductor
leading an
orchestra



A SCIENCE TEACHER IS...

A LIFEGUARD

-
- “Science teacher is like a lifeguard because he has to be responsible to students and stay alert in various experiments.”

A MAGICIAN

-
- “Science teacher is like a magician, unveiling the mysterious and intriguing nature of science to the audience, who are the students. Every time when the teacher conducts an experiment, it is like performing a magic show. He/she amazes the students by showing a colour change or detecting a special smell, just like a magician surprises the crowd with an unbelievable magic.”

A STRAND OF DNA

-
- “Science teacher is like a strand of DNA because he inculcates useful science knowledge to his students and passes on the wisdom of science from the older generation.”

FRICITION

-
- “Science teacher is like friction. A good science teacher is friction that is useful. For example, the friction between the shoes and the floor makes us able to move forward which means a good science teacher can help student make improvements and make a step further. If lacking in this kind of friction, we may slip and not able to move.
 - However, a bad science teacher is the friction that makes student difficult to get forward such as compressing student's creativity and imagination.”

REFLECTION TIME



What is your metaphor representing science teachers?



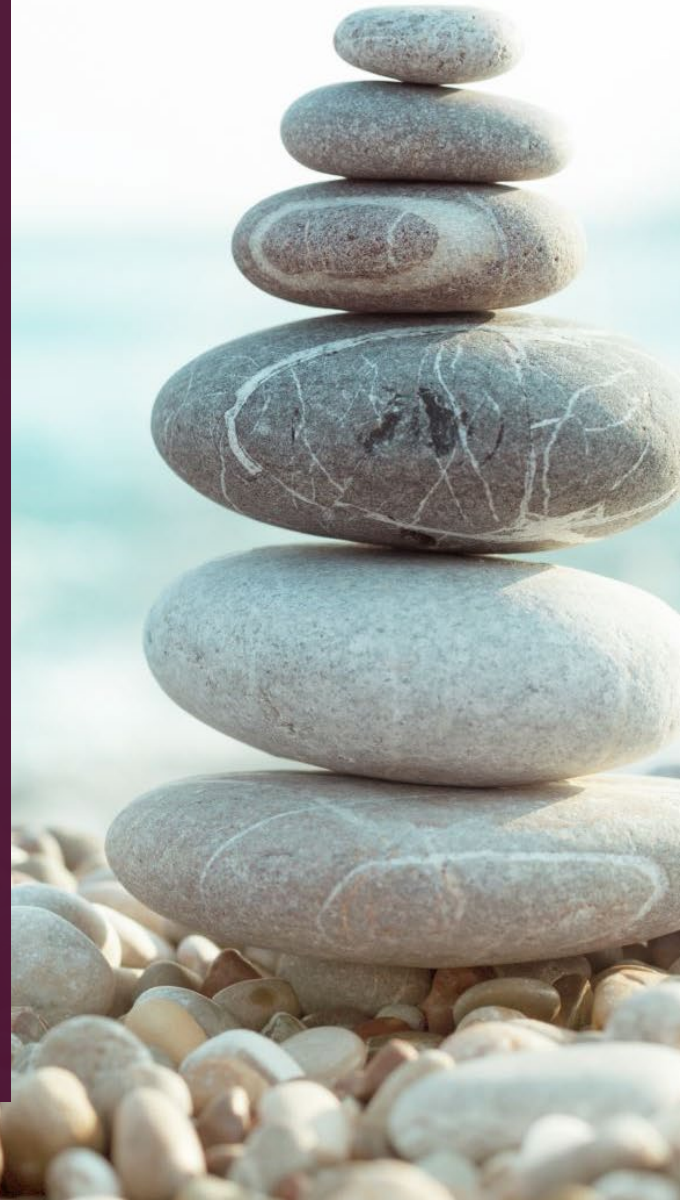
Does it distinguish science teachers from teachers of other subjects?



Does it distinguish good science teachers from any science teachers?

BECOMING REFLECTIVE PRACTITIONERS

- “We do not learn from experience ... we learn from reflecting on experience.”
— John Dewey





ADMISSIONS TIPS

ADMISSIONS SCORES

(WITH REFERENCE TO ADMISSIONS 2022)

| HKDSE Scoring Formula (The scoring formula considers category A subjects only, unless otherwise specified.) | Upper Quartile | Median | Lower Quartile |
|---|----------------|--------|----------------|
| 1.5 x Eng + 2 x Math + 2 x Best Sci Subject + Best 2 Subjects with Weighting 3 | 61 | 58 | 55 |

Subject Weightings for Specific Programme

WEIGHTING 3

6119 BEd&BSc

x2 Biology / Chemistry / Combined Science / Integrated Science / Mathematics Extended Part (Module 1 or 2) / Physics

From 2020-21, HKU adopted a new scoring system by giving bonus points to students achieving Level 5, 5* or 5** in the HKDSE subjects. Under the HKU scoring system, the level to score conversion are as follows:

| Level | 1 | 2 | 3 | 4 | 5 | 5* | 5** |
|-------|---|---|---|---|-----|----|-----|
| Score | 1 | 2 | 3 | 4 | 5.5 | 7 | 8.5 |

HKDSE SCORING FORMULA FOR 2023-24 ENTRY

HKDSE Scoring Formula for 2023 and 2024 Entry (The scoring formula considers category A subjects and M1/M2 only, unless otherwise specified.)

Eng + 1.5 x Math + 1.5 x Best Sci Subject[^] + Best 2 Subjects with Weighting¹

Consideration of Other Factors

▶ Additional subjects

Consideration of HKDSE Combined Results & Penalty for HKDSE Repeaters

▶ Best results in year 2022 and 2023

[^]"Sci Subject" refers to one of the following subjects, namely Biology, Chemistry, Combined Science, Integrated Science, or Physics.

¹Subject Weighting(s)

X 1.5

Biology / Chemistry / Physics / Combined Science / Integrated Science / Mathematics Extended Part (Module 1 or 2)

STRATEGIES TO GET INTO THE BED&BSC PROGRAMME

- Only applicants who have put the programme as their **Band A** i.e. top 3 choices in JUPAS choice will be favourably considered
- Must take and obtain Level 3 or above in one of the following Science elective subjects: **Biology, Chemistry, Physics, Combined Science, or Integrated Science**
- Achieve good results in Mathematics and English Language would lead to higher admissions scores
- Have a competitive edge for candidates studying more **Science elective subjects & MI/M2**, and achieving good results in these subjects
- Consider best results in years 2022 and 2023 only
- No interview except for special cases which we wish to get more information

MYTHS ABOUT THE PROGRAMME

- I can take BEd&BSc as a stepping stone and transfer to BSc or other programmes in Year 2.

No. There is no exit point for the BEd&BSc programme. Internal transfer would be subject to the approval of the offering departments, and there is no guarantee of success.

- I can be a Mathematics teacher after graduation from this programme.

BEd&BSc does not offer Major in Mathematics. The programme aims to train qualified teachers in Science subjects in Hong Kong Secondary Schools. Whether graduates can be recruited as a Maths teacher, it would be subject to the contractual agreement between graduates and their prospective employers (i.e. the Schools). Students are advised to declare Minor in Mathematics and take more Maths electives to enrich their knowledge during the 5-year of studies and add colours to their portfolios.



BEd&BSc

Student Sharing

Jayden Shum [Year 4 (Bio)]



Origin

Me as a student tutor



Knowledge

Practical
Experience

BEd&BSc



Knowledge

Education

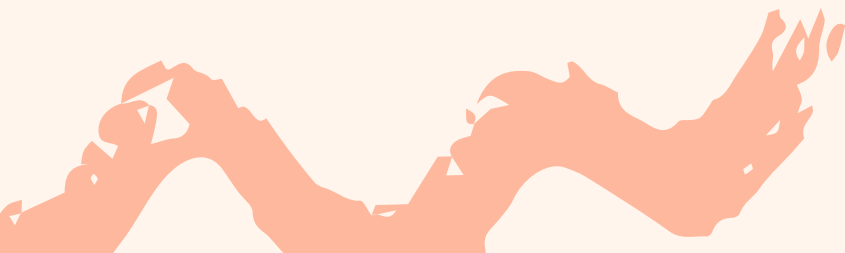
- Support students' diversity
- Psychological theories
- Education philosophy

→ **Comprehensive overview**

Science

- Science Major
 - Biological Sciences

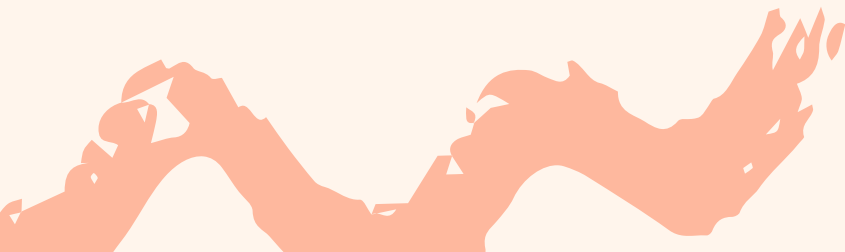
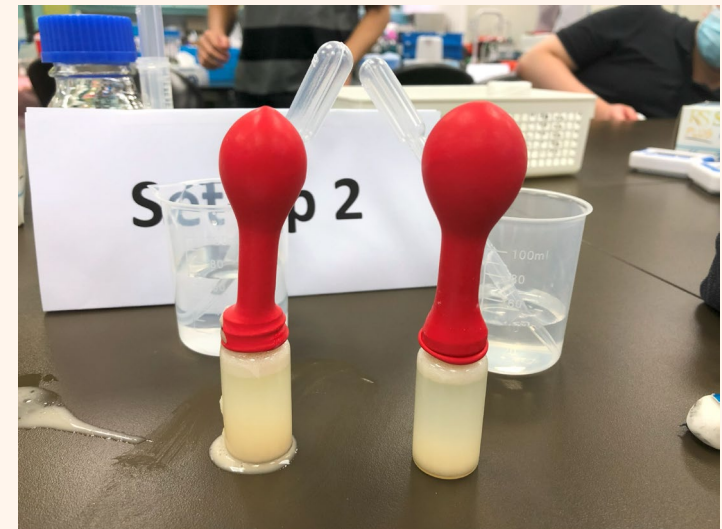
→ **Mastery of Science knowledge**



Knowledge

Science Education

- Pedagogy
- Curriculum
- Assessment
- Practical Work

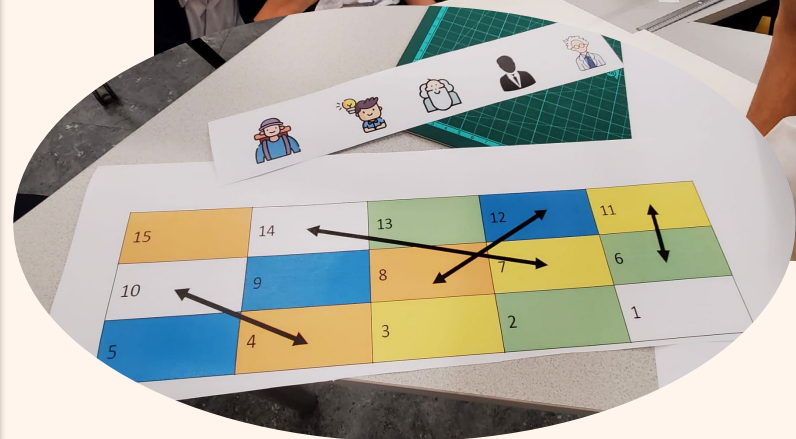
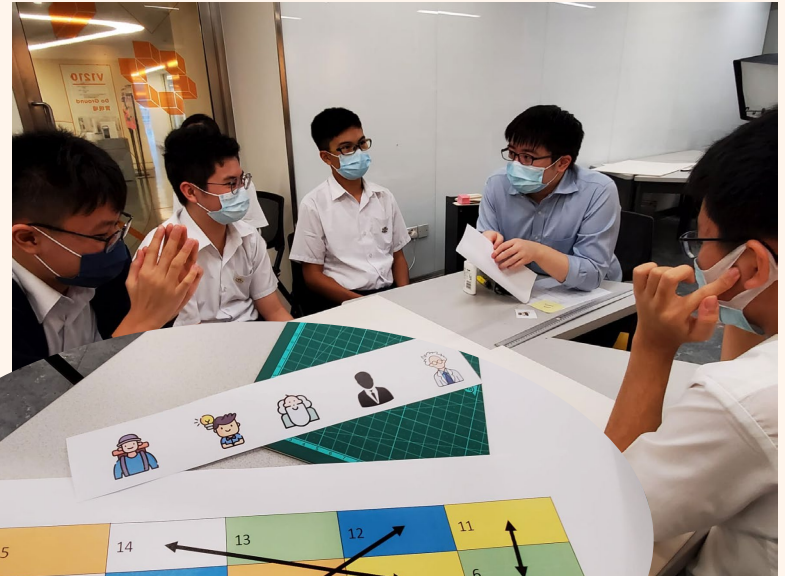


Practical Experience

Experiential learning



STEM Workshop



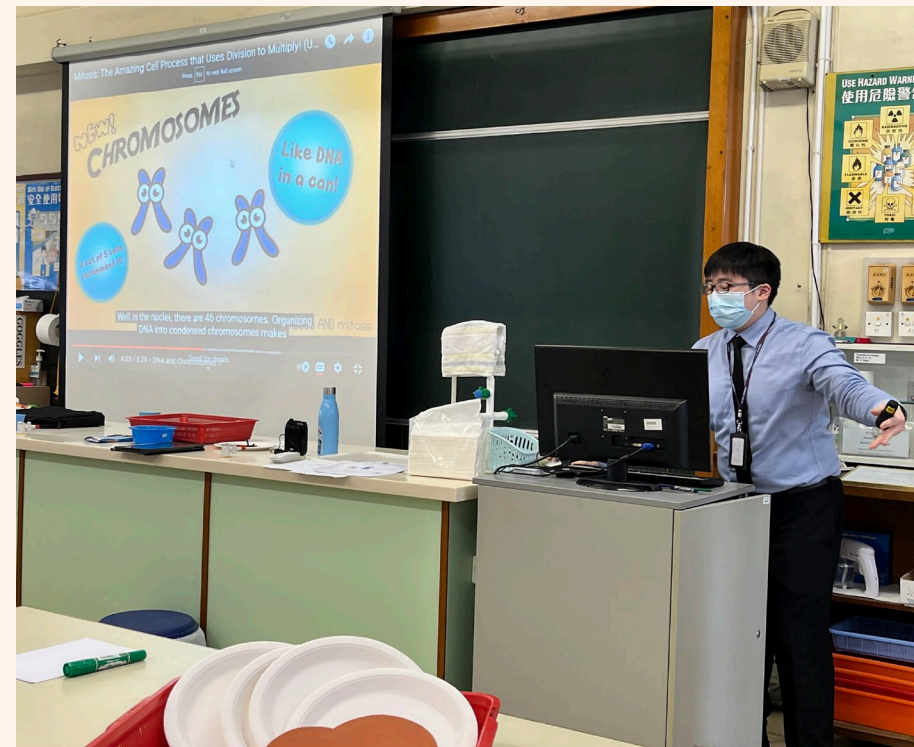
Design Thinking

Practical Experience

Professional Practicum

Apply & Learn

Challenging & Fruitful





Thank you