

ICOT18



MIAMI

INTERNATIONAL CONFERENCE ON THINKING MAY 16 - 20, 2018 FLORIDA





Educating for the Unknown

Reimagining Learning for a Changing World





Six

The Rele

Prok
Sto

Opp
Sto

g that
atters

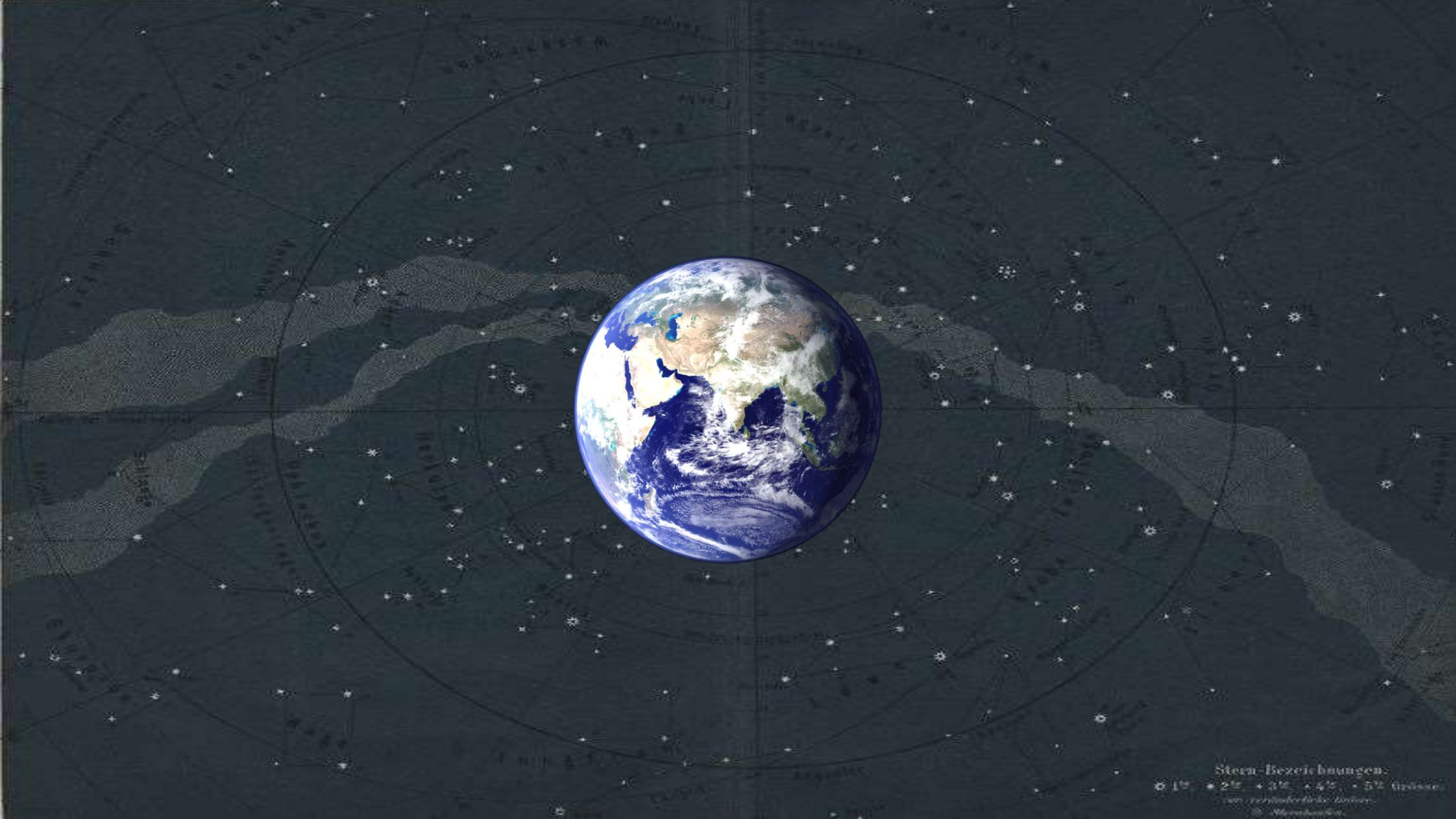
World Paradox

Educating for the Unknown

Learning that Matters



Six
Beyonds



Stern-Bezeichnungen:

☉ 1^{te} • 2^{te} • 3^{te} • 4^{te} • 5^{te} Grösse

☉ veränderliche Sterne

☉ Sternhaufen

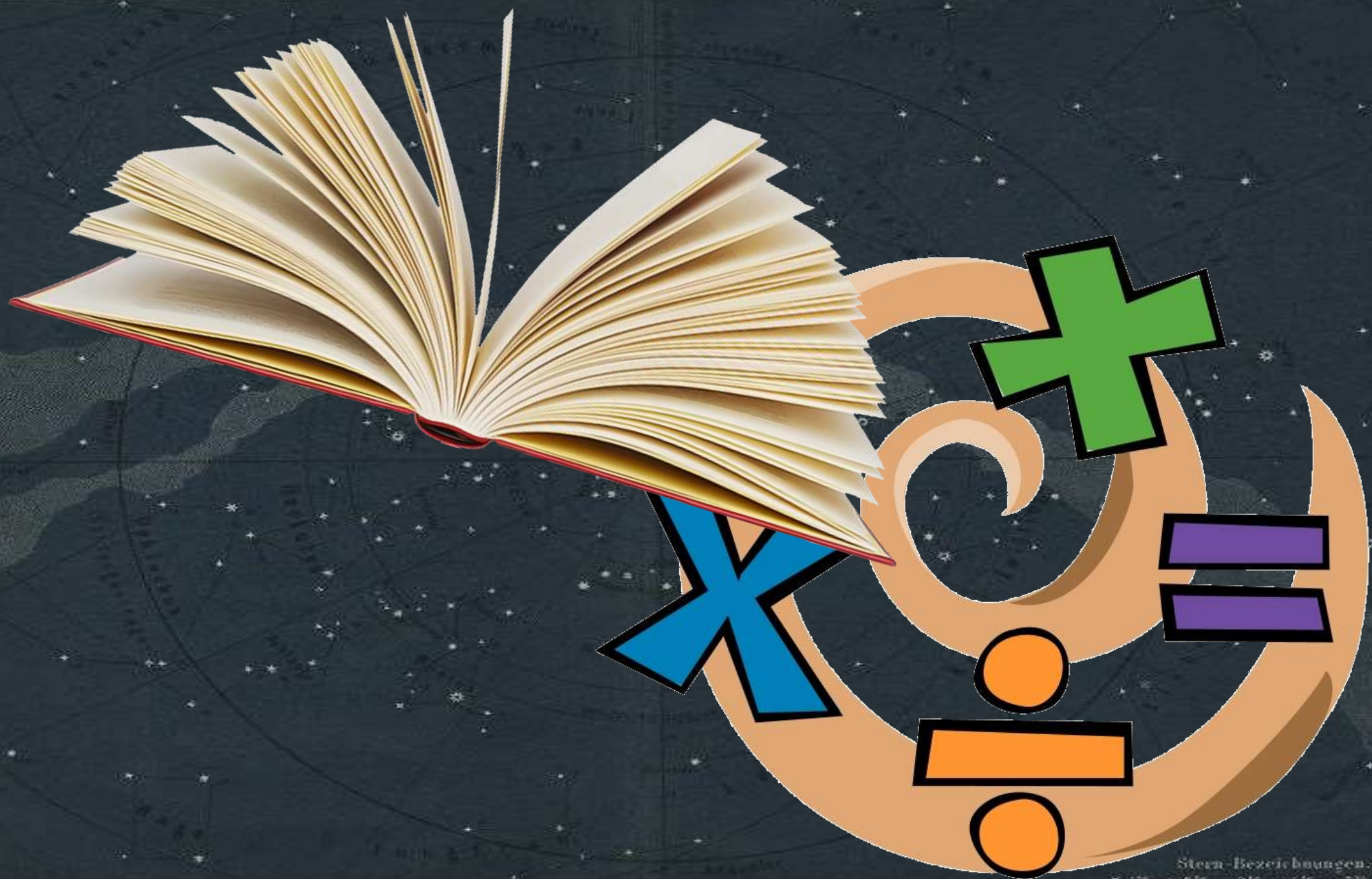


Stern-Bezeichnungen:

☉ 1^{te} • 2^{te} • 3^{te} • 4^{te} • 5^{te} Grösse

☿ • Venus • Mars • Jupiter • Saturnus

☾ • Mond

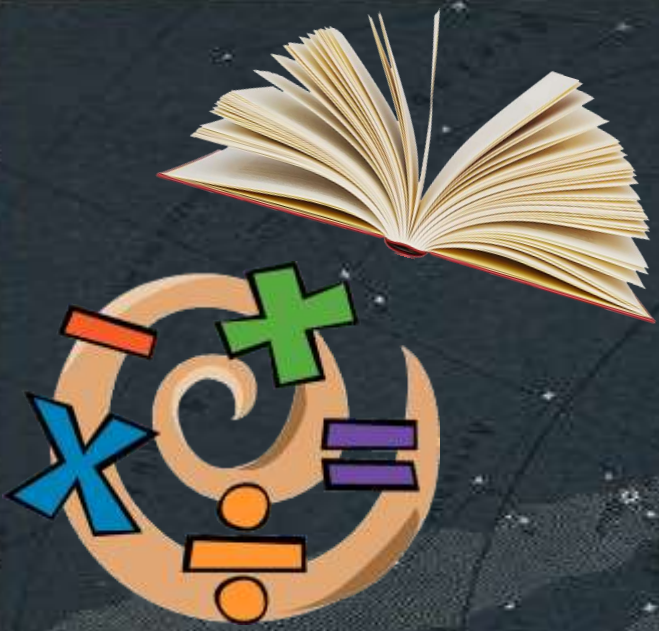


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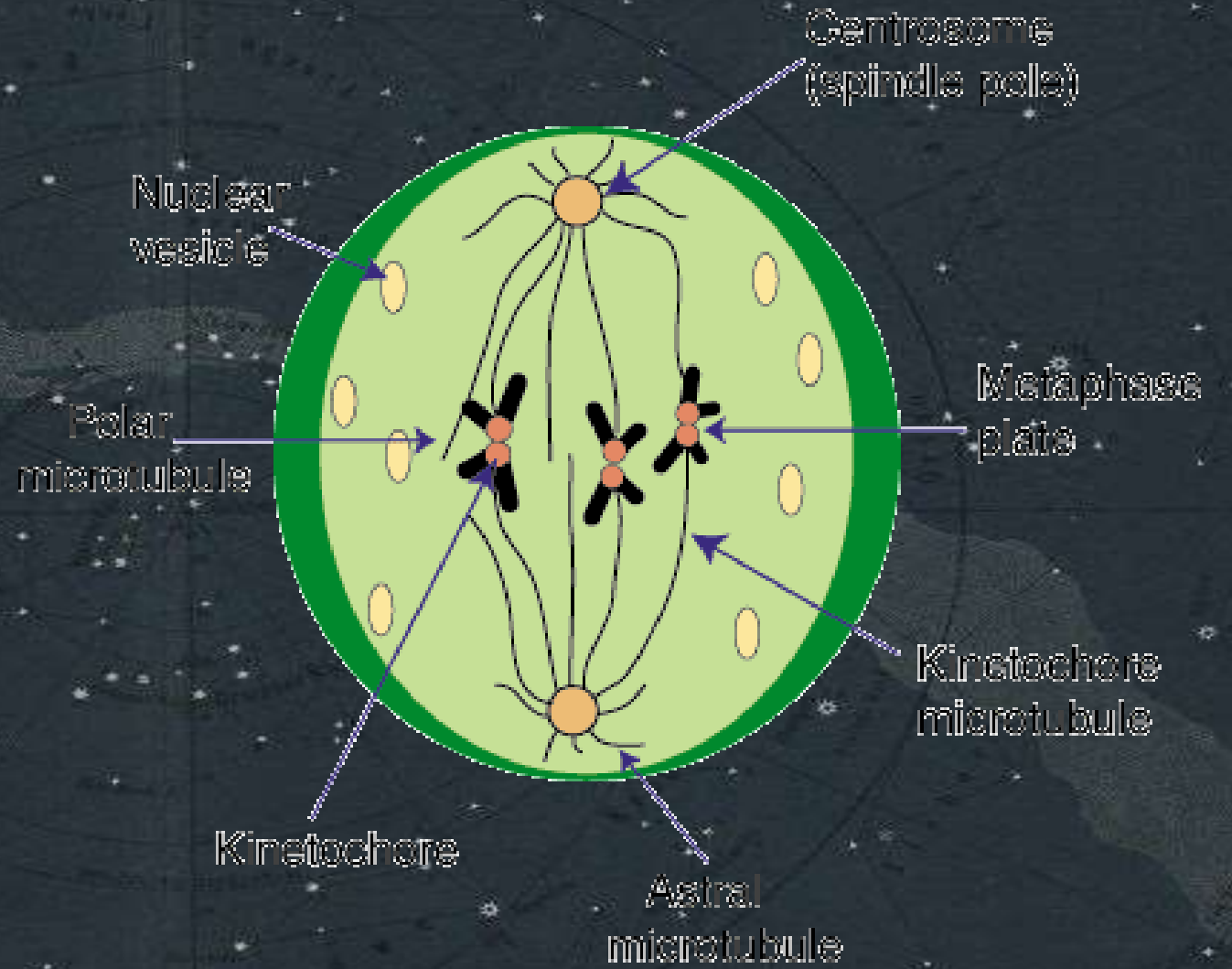
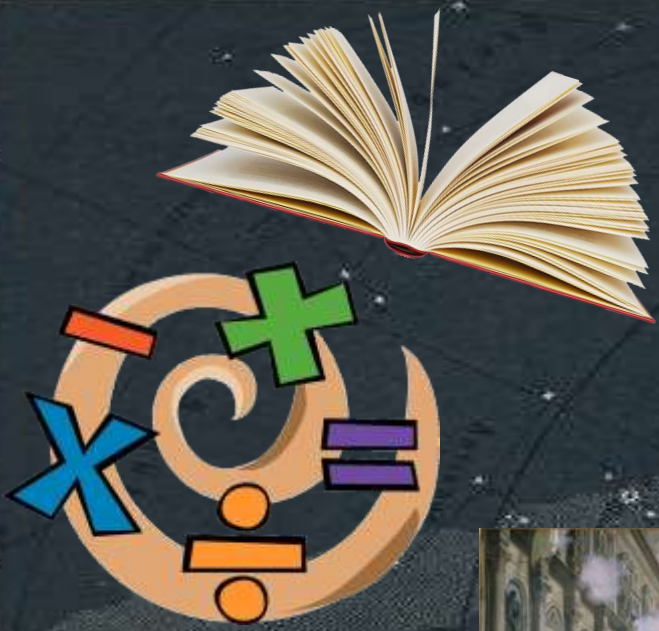
• 1^{te} • 2^{te} • 3^{te} • 4^{te} • 5^{te} Grösse

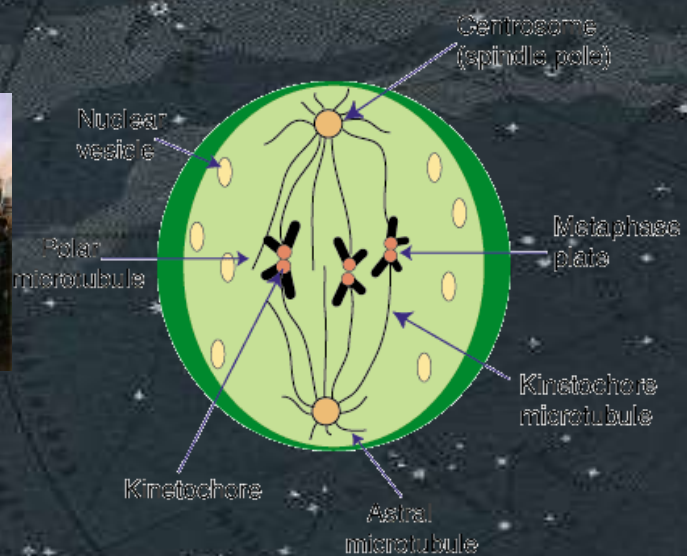
(mit rechtsdrehender Leiter)

© Sternenkarte



Stern-Bezeichnungen:
☼ 1^{te} • 2^{te} • 3^{te} • 4^{te} • 5^{te} Grösse
☼ richtungslos • links
☼ Sternschnur

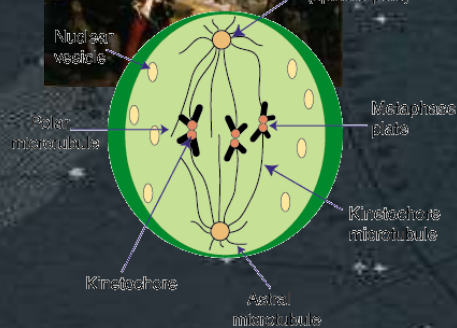




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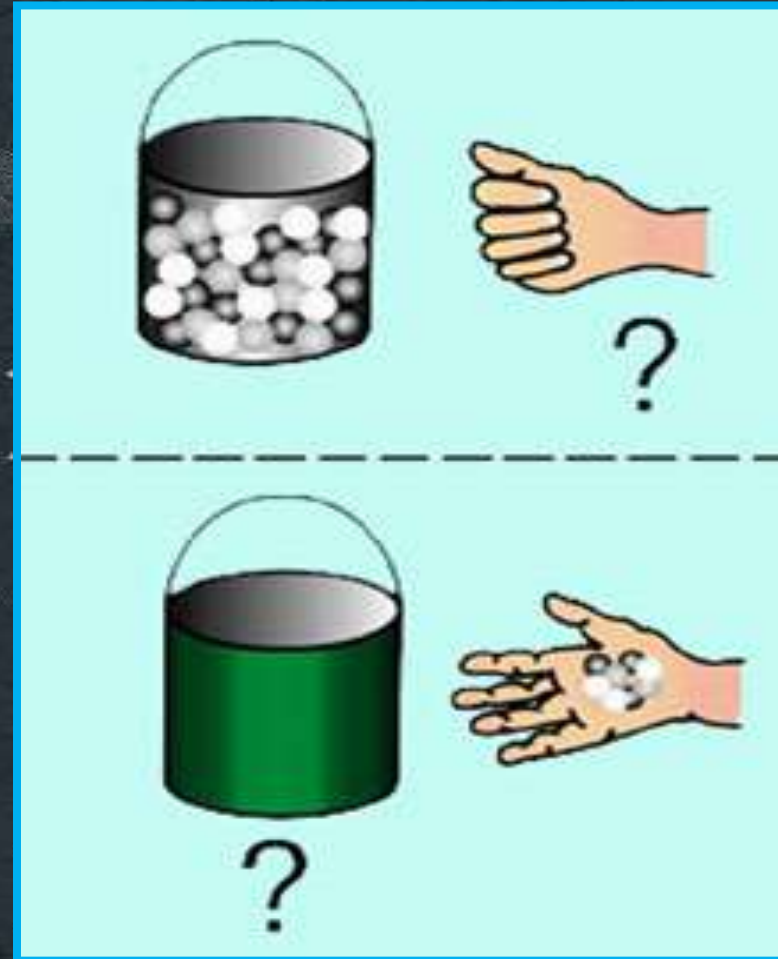
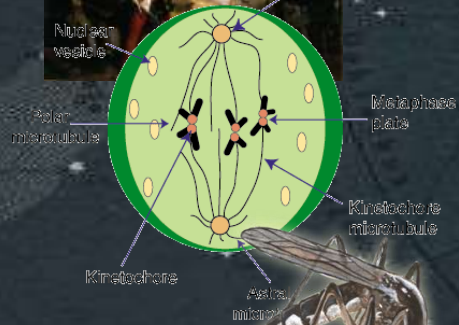
• 1^{te} • 2^{te} • 3^{te} • 4^{te} • 5^{te} Größe.

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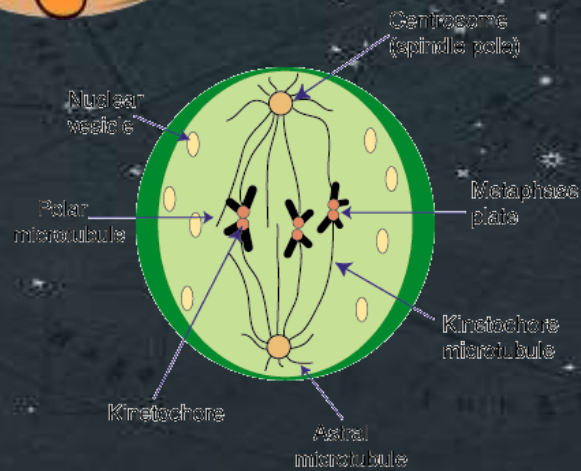
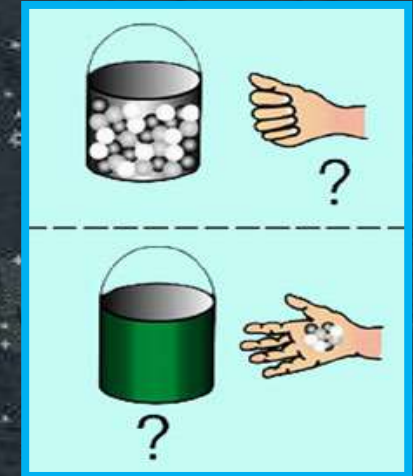
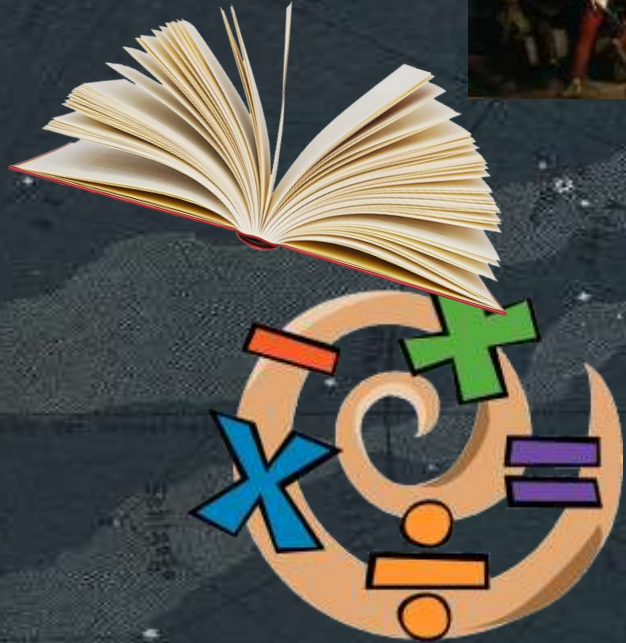


$$Ax^2 + Bx + C = 0$$

$$Ax^2 + Bx + C = 0$$



$$Ax^2 + Bx + C = 0$$



Stern-Bezeichnungen:
 ☼ 1^{te} ☼ 2^{te} ☼ 3^{te} ☼ 4^{te} ☼ 5^{te} Grösse
 von rechts her: Antares, Rigel, Betelgeuse, Sirius, Proxima Centauri.

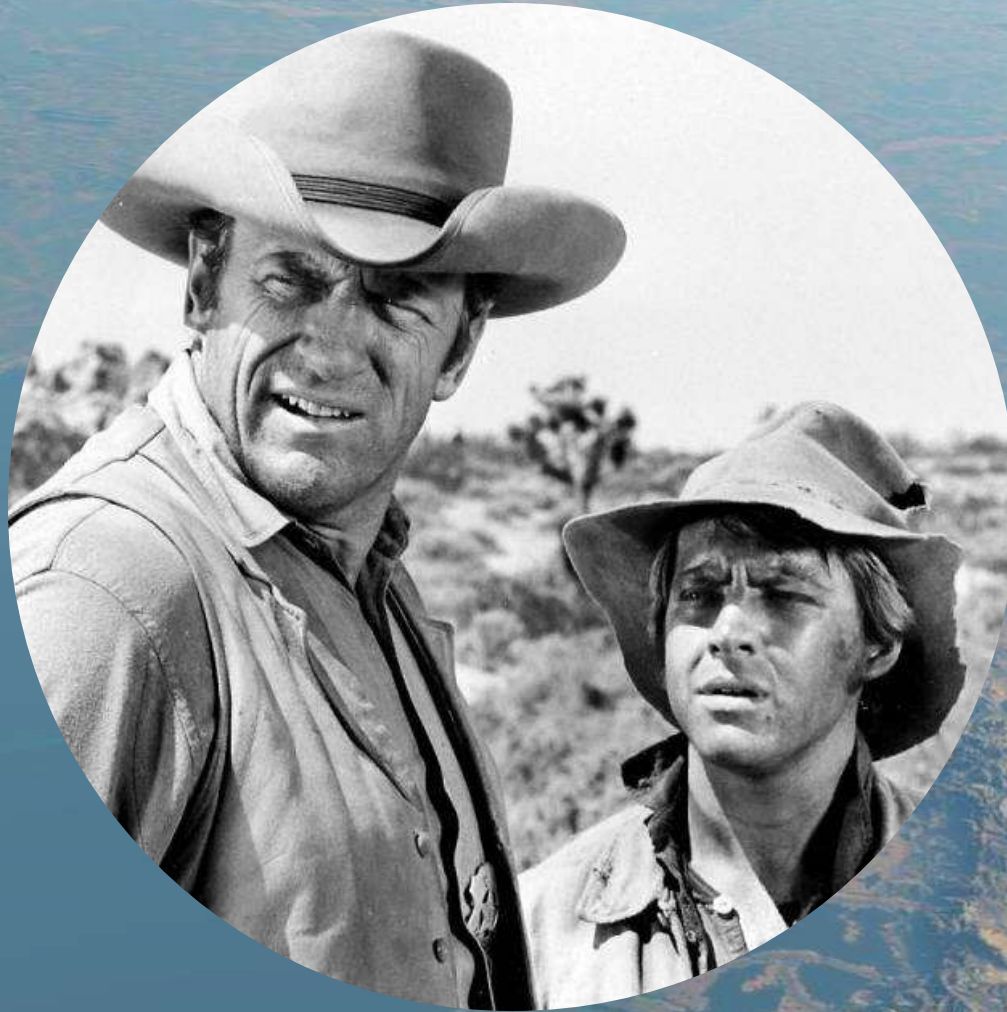
Learning that Matters



The Small World Paradox









The Small World Paradox

As our collective
world gets
smaller, the
worlds we
individually
engage become
more numerous
and complex



The Small World Paradox

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The Small World Paradox



Opportunity Stories

The Small
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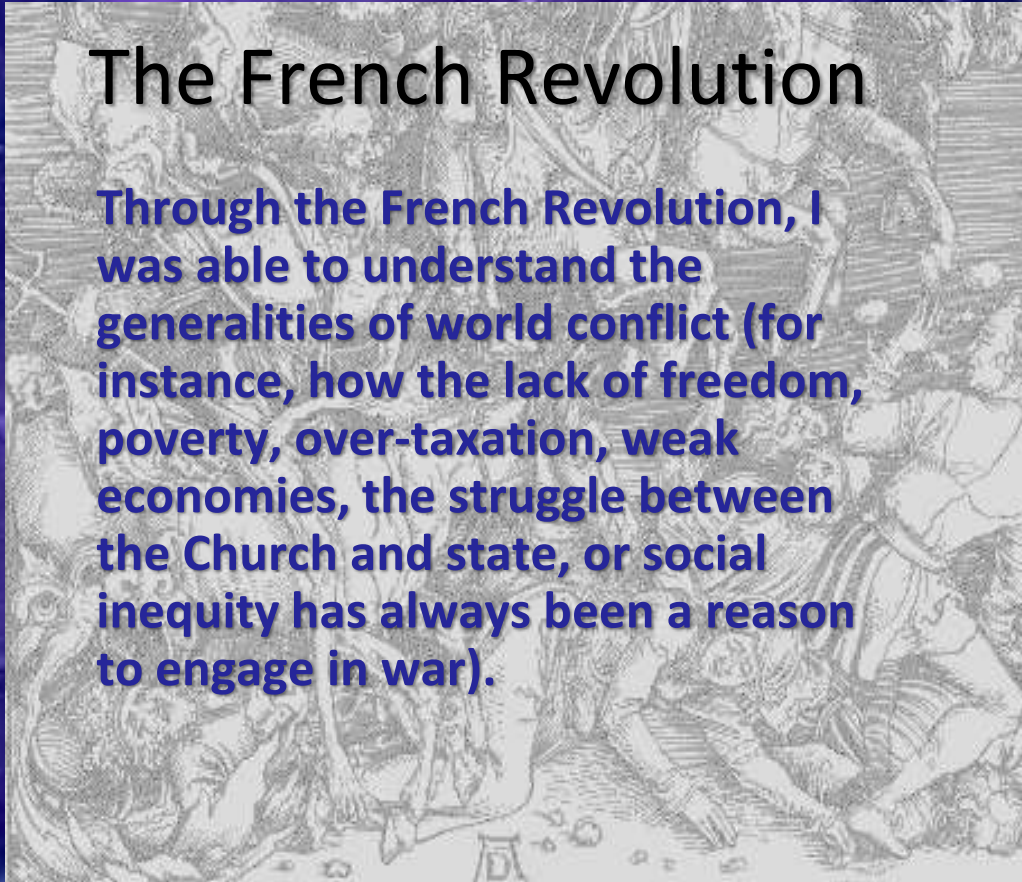
Problem
Stories

The Relevance
Gap



The French Revolution

Through the French Revolution, I was able to understand the generalities of world conflict (for instance, how the lack of freedom, poverty, over-taxation, weak economies, the struggle between the Church and state, or social inequity has always been a reason to engage in war).



Narrative



(1) narratives are helpful in thinking about our world.

(2) nuances will inevitably emerge which may challenge our narratives.

(3) if we do decide to believe in a narrative, we had better be ready, willing and able to defend it.

(4) while narratives have an unmistakable allure, it is crucial to **NEVER** overlook evidence that will support a contrary position just because it is easier to maintain an original one.





Insight

Action

Ethics

Opportunity

Insight

Action

Ethics

Opportunity





Insight

Action

Ethics

Opportunity



A satellite night view of Earth showing city lights across the continents. The lights are concentrated in North America, Europe, and parts of Asia and Africa. The ocean is dark, and the atmosphere is visible at the top.

Insight

Action

Ethics

Opportunity





Insight

Action

Ethics

Opportunity

BIG

understandings

“Mattermathics”

+ 1

x 2

÷ 3

Stern-Bezeichnungen:

• 1^{te} • 2^{te} • 3^{te} • 4^{te} • 5^{te} Grösse

(mit veränderlicher Größe)

☉ Merkur

Opportunity Stories

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**Problem
Stories**

Interphase

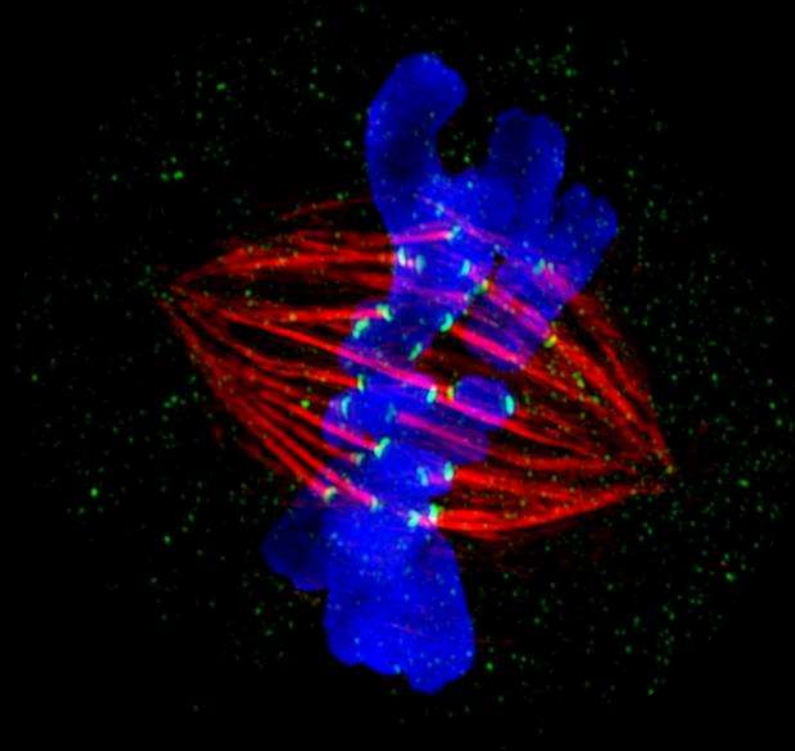
Prophase

Metaphase

Anaphase

Telophase

Cytokinesis

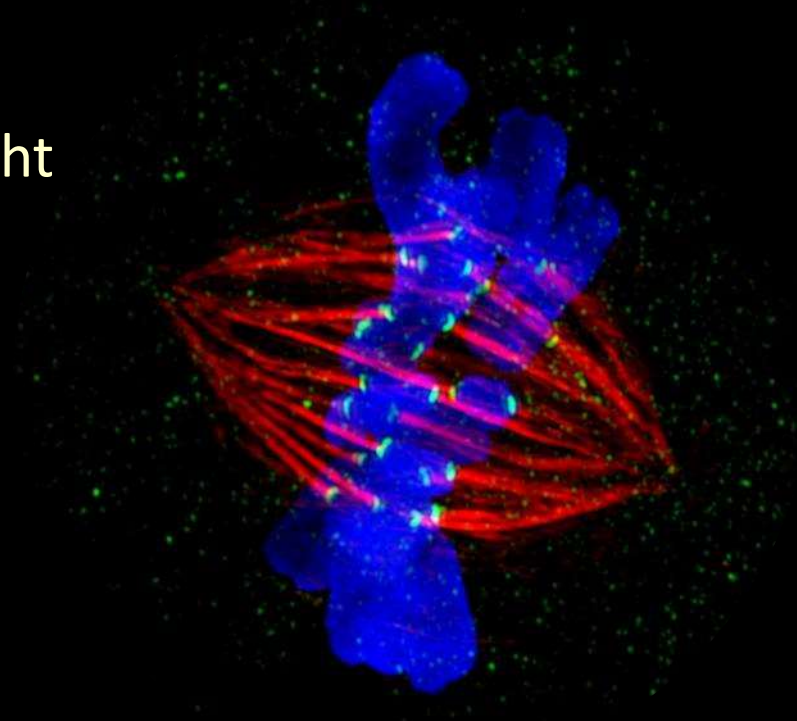


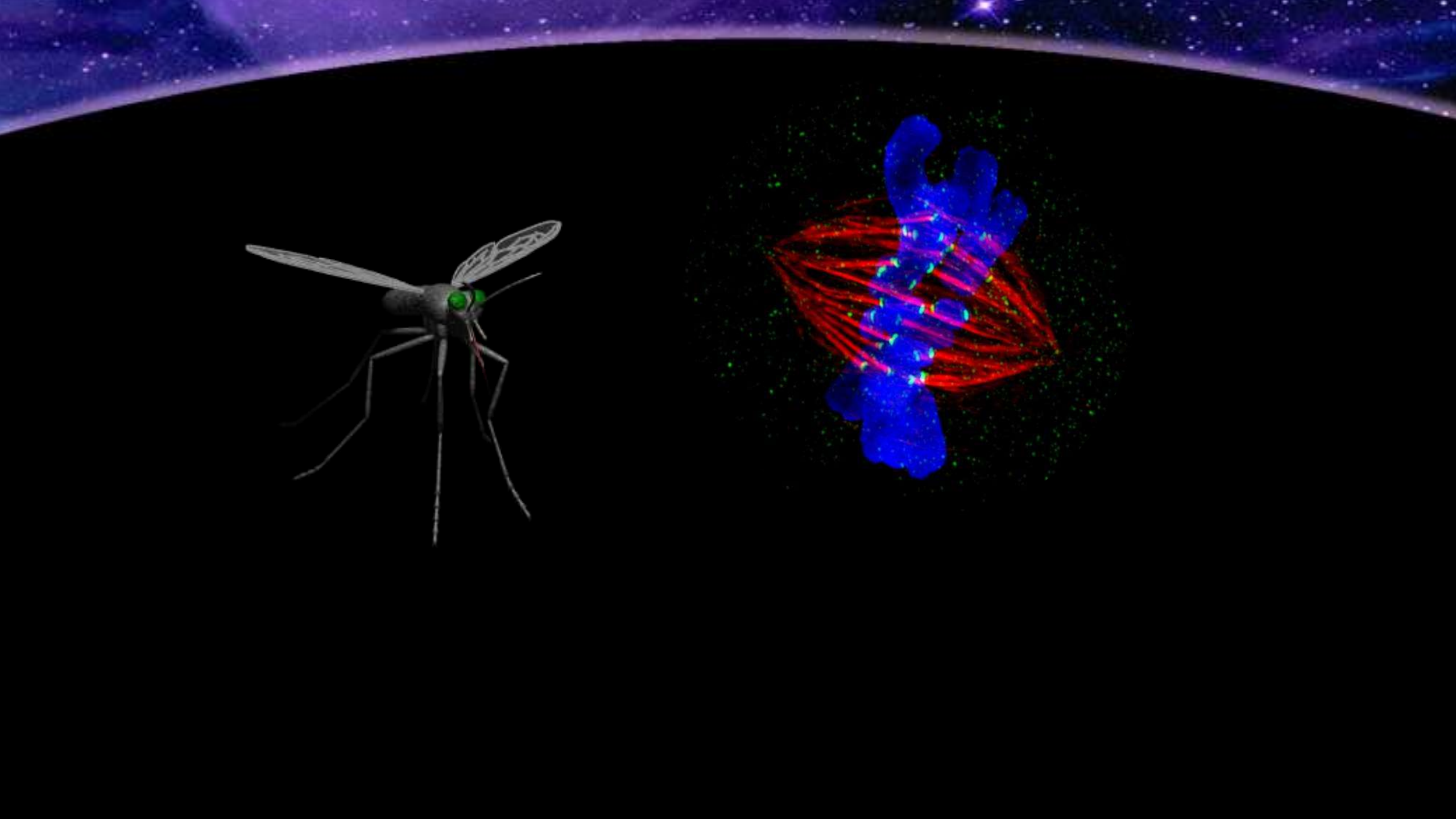
Insight

Action

Ethics

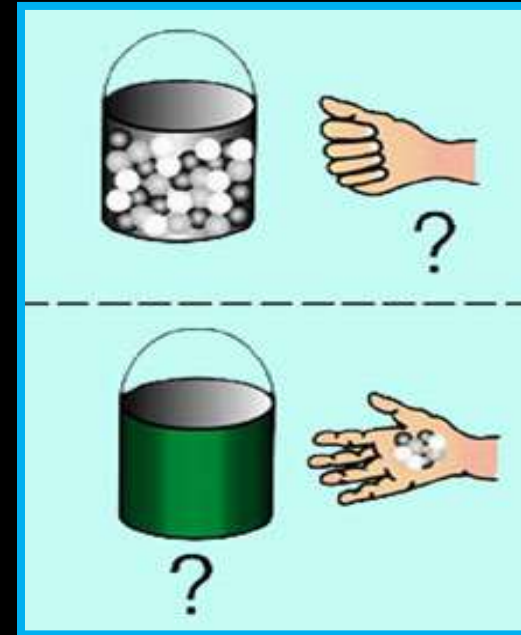
Opportunity





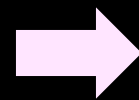

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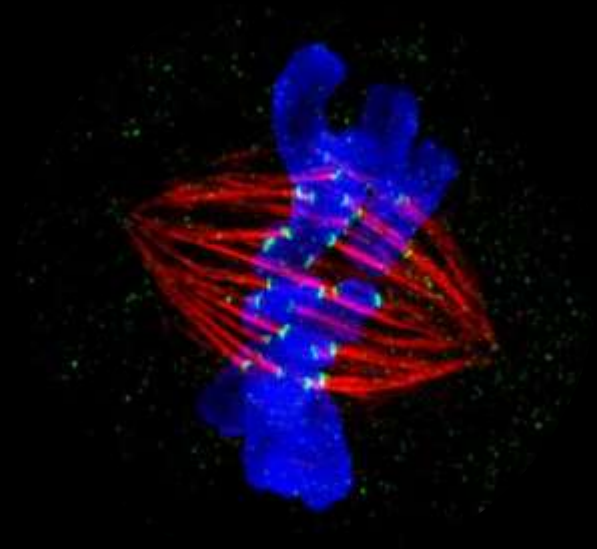




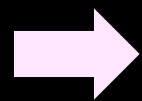
Understanding OF



Understanding WITH



Understanding OF



Understanding WITH

“Mattermatics”

+ 1

x 2

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(mit veränderlicher Größe)

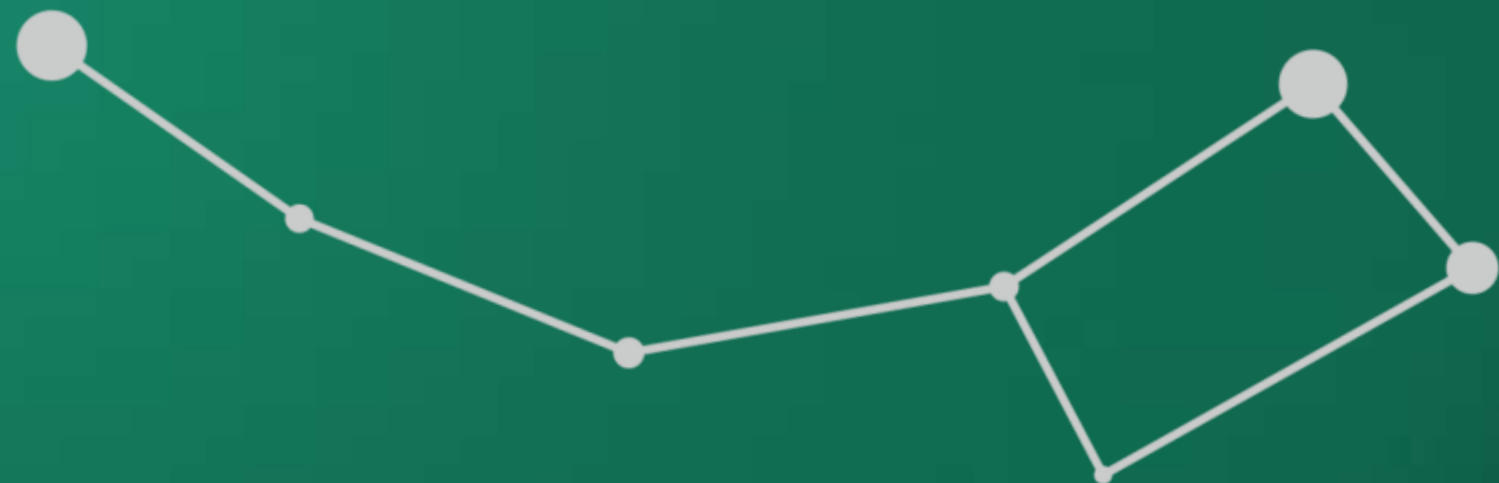
☉ Merkur



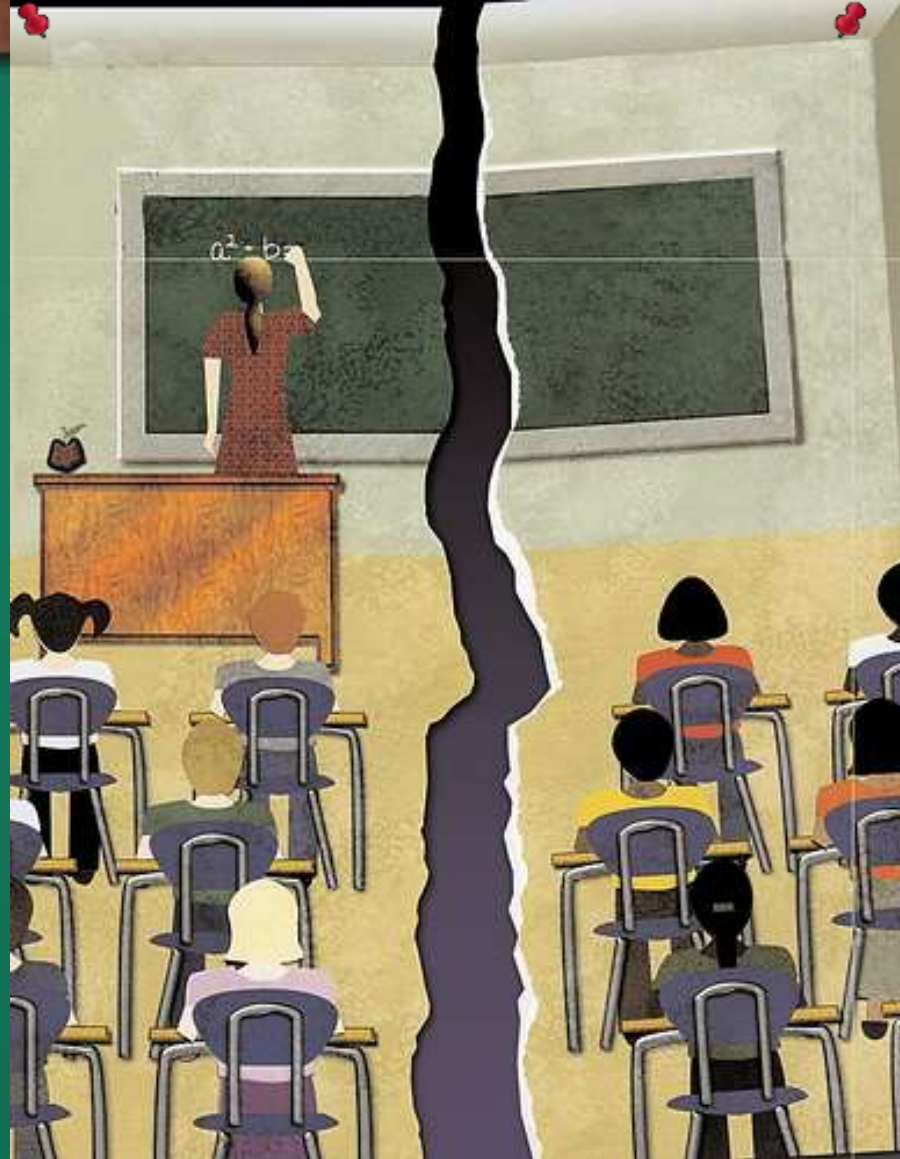
**Problem
Stories**



The Relevance Gap



The ACHIEVEMENT gap



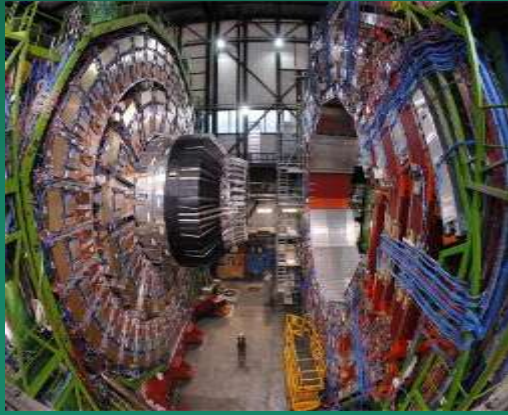
The RELEVANCE gap



INFORMATION



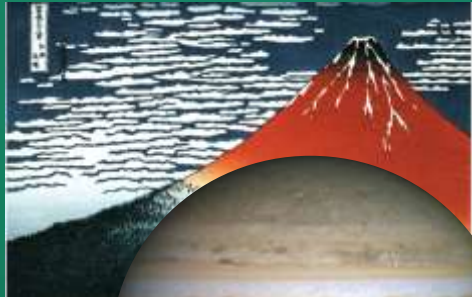
INFORMATION



IT

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$$3 \times 7 = 21$$

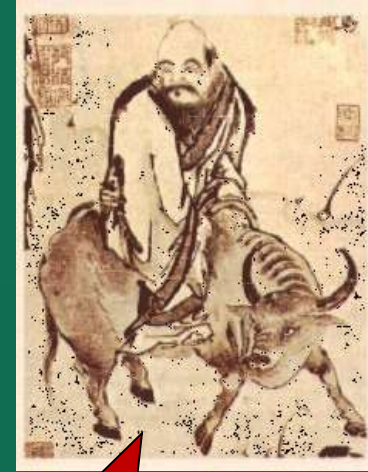
206 bones
in the
adult
human
body

The Magna Carta

1066
AaBbCcDd...

1492

The French Revolution



The Big Bang



Omnia Gallia est divisa in partes tres

To be or not to be...

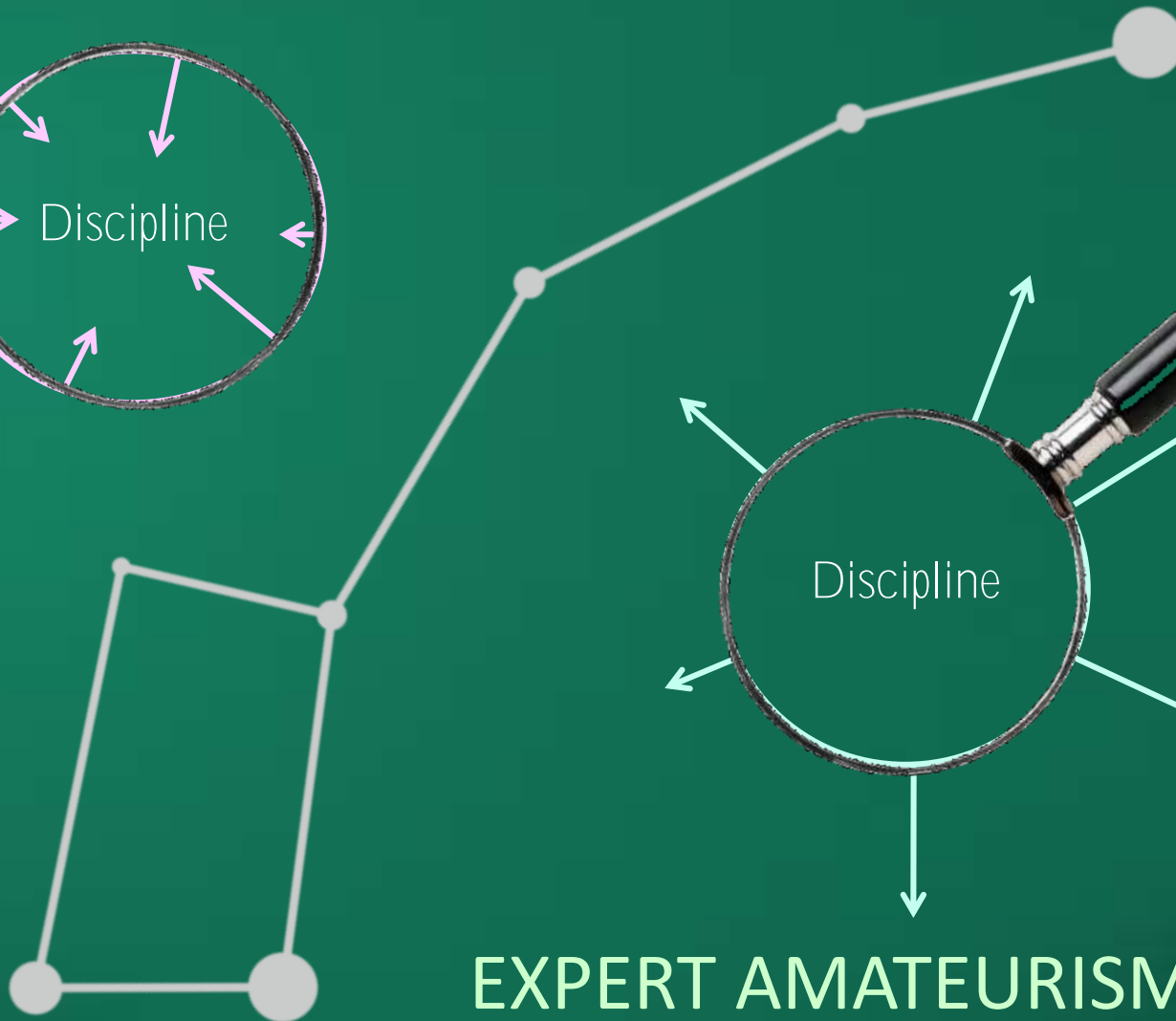
$$E = MC^2$$

EXPERTISE





EXPERTISE



EXPERT AMATEURISM



The Relevance
Gap

Six Beyonds



Beyond Local
Global perspectives,
problems, studies

Beyond Content
21st century skills,
digital competences,
etc.

Beyond Topics
Content as tools for
thinking and action

**Beyond academic
engagement**
Personal choice,
significance,
commitment, and passion

**Beyond the Traditional
Disciplines**
Renewed and extended visions
of the disciplines

**Beyond discrete
disciplines**
Interdisciplinary topics
and problems





KEY COMPETENCES FOR LIFELONG LEARNING
European Reference Framework

1. Communication in the mother tongue
2. Communication in foreign languages
3. Mathematical competence and basic competences in science and technology
4. Digital competence
5. Learning to learn
6. Social and civic competences
7. Sense of initiative and entrepreneurship
8. Cultural awareness and expression



Beyond Local
Global perspectives,
problems, studies

Beyond Content
21st century skills,
digital competences,
etc.

Beyond Topics
Content as tools for
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x 2

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☉ Merkur



Six Beyonds



Educating for
the Unknown

As our collective world gets
smaller, the worlds we
individually engage become
more numerous and complex







Hakuin Ekaku (1685–1768)



