



eTasks

- a resource to support -

Learning
to work like a
Mathematician



Our Role

100%
professional
development...



Our Role

100%
professional
development...
collect & retell
stories of success



Core Curriculum

Learning to work
like a mathematician



Core Curriculum

Learning to work
like a mathematician

...and the teaching
craft that fascinates,
captivates & absorbs



A. Prof. Joanna Masel

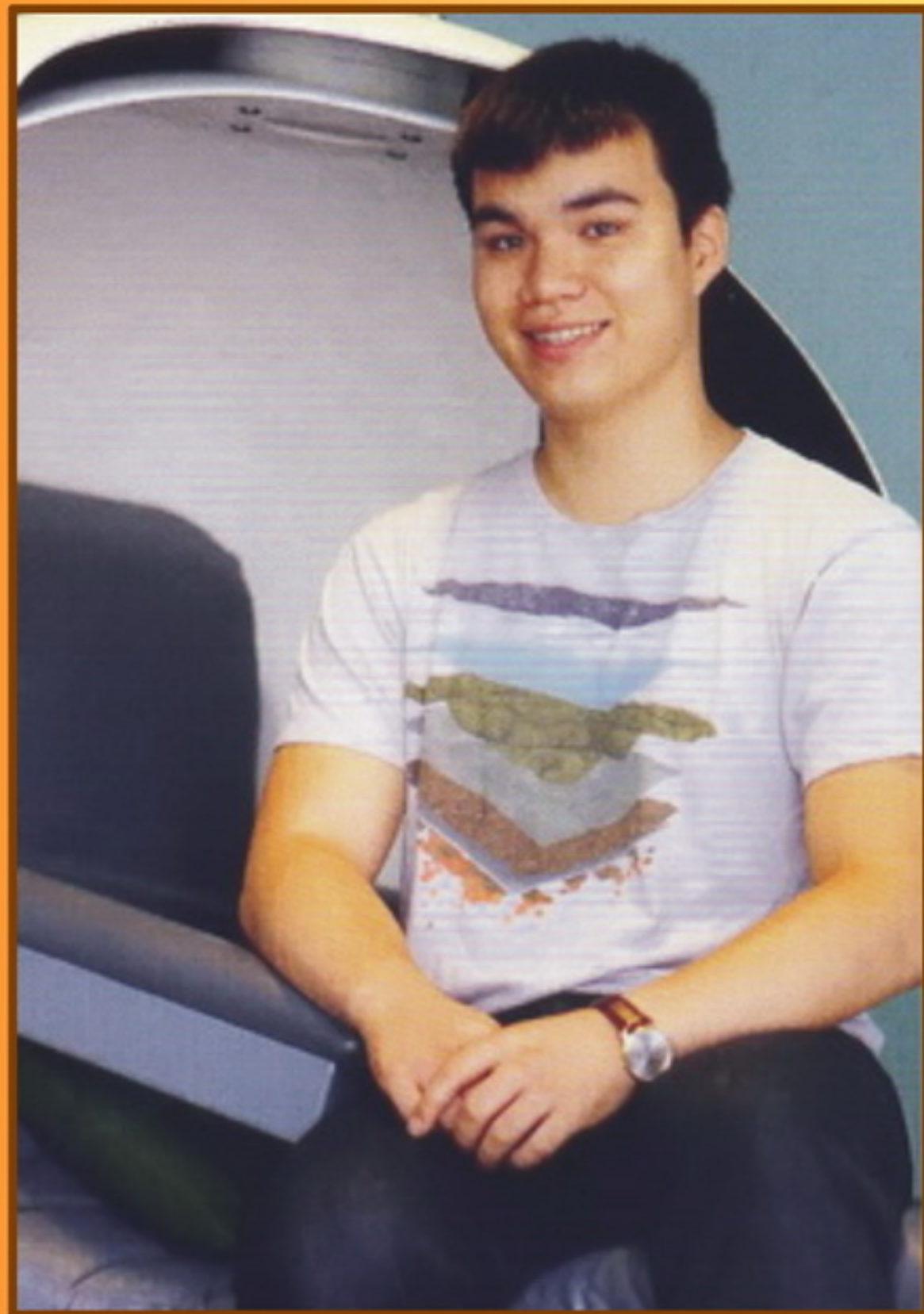
Tuscon, Arizona

Australian

Associate Professor Joanna Masel found school tough. She was talented at maths, but was often bored and uninterested in class at her Melbourne school.

I prefer co-operation - working to solve problems together.

My main area is evolutionary theory. We analyse other people's data (with mathematical and other models) to test theories of how evolution works.



Christopher Chen

Software engineer, Google Australian

It was an intriguing mathematical puzzle called the Seven Bridges of Königsberg that led Christopher Chen to realise that maths was not only about numbers on a page but could also be a powerful problem-solving tool.

I realised that you could use maths to theoretically map every part of the world.

You can discover surprising patterns, such as the fact that most people have fewer friends than their friends do.



Rachel Wong

Year 12 Student 2013

Australian

When you solve a problem, everything is logical and you just follow a series of steps. The difficulty is actually coming up with those steps in the first place and that's where the creativity comes in.



Prof. Terence Tao

University of California L. A. Australian

In my job today it's not about how quick or how smart you are, but more about patience. Lots of problems take months or years to solve.



Core Curriculum

Learning to work
like a mathematician?

First give me an
interesting problem...



Our Objective

happy, healthy, cheerful
productive, inspiring classrooms

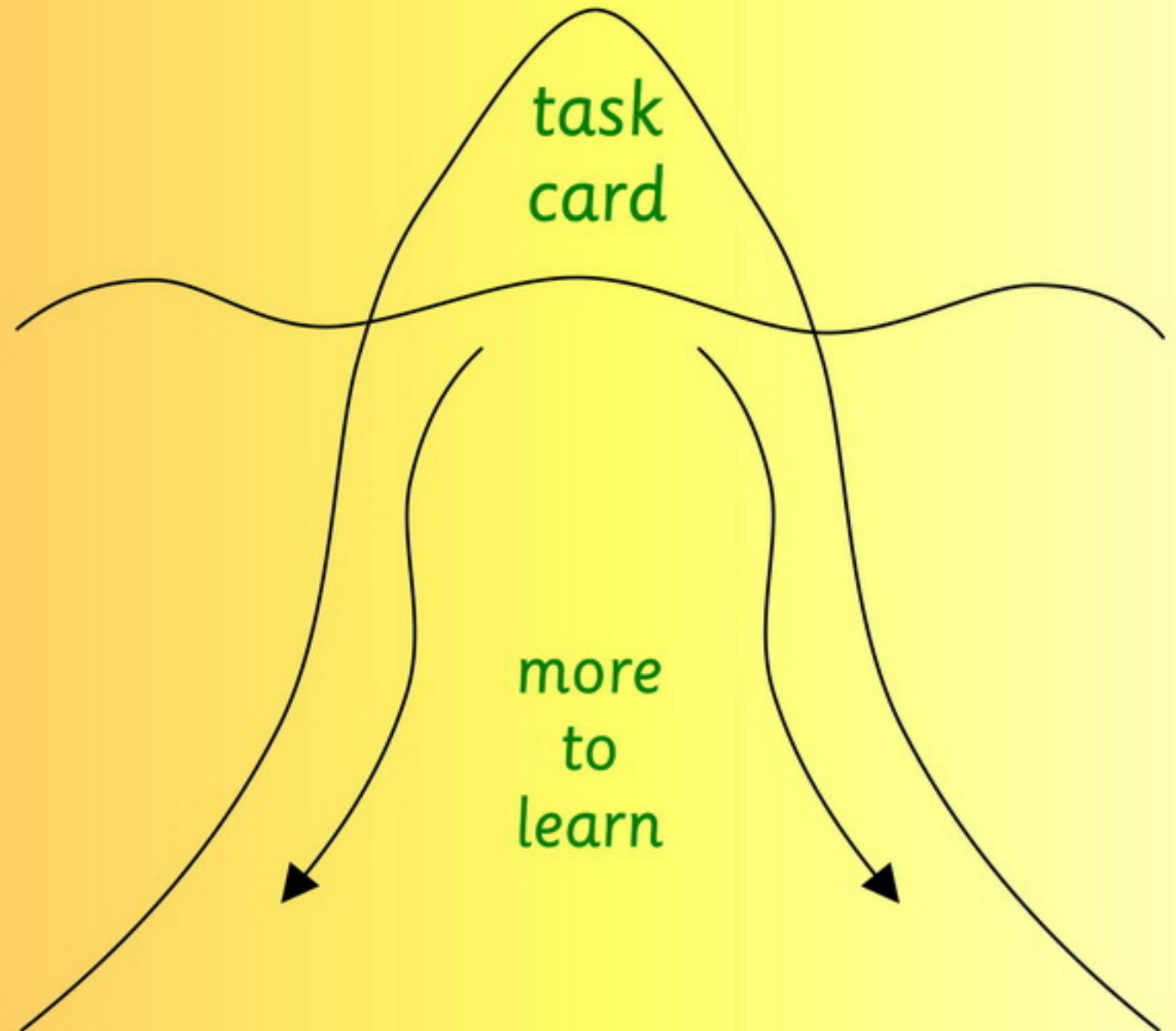


in which students
are learning to
work like a
mathematician





Tip of an Iceberg



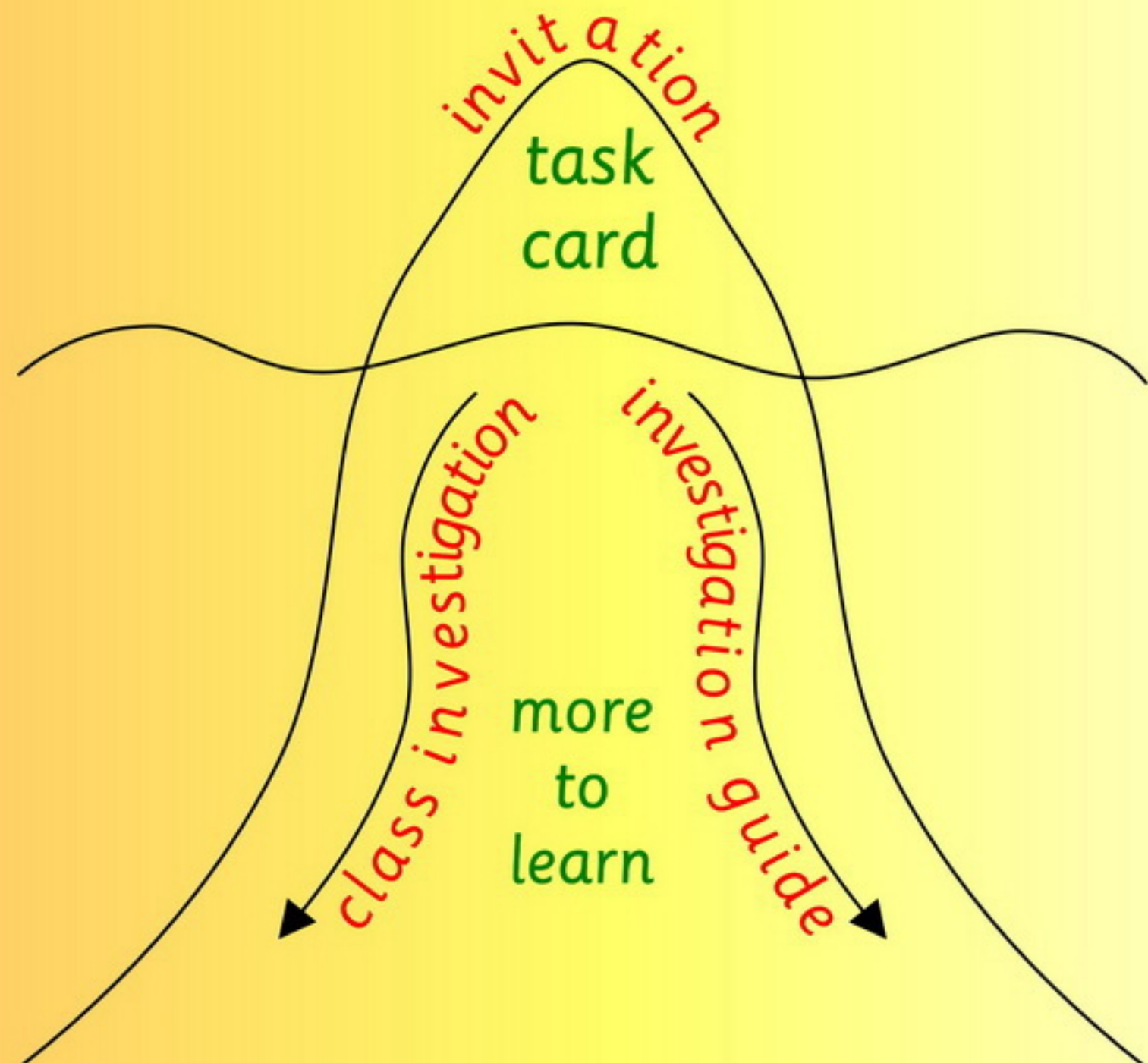


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3 Lives of a Task





Curriculum Vision

invitation



modelling



skills



Mathematician's Lament



How School Cheats Us
Out of Our Most Fascinating
and Imaginative Art Form

Paul Lockhart

Foreword by Keith Devlin



Dr. Paul Lockhart

Teacher / Author

American

A good problem is something you don't know how to solve. That's what makes it a good puzzle and a good opportunity.

Mental acuity of any kind comes from solving problems yourself, not from being told how to solve them.

Doing mathematics should always mean finding patterns and crafting beautiful and meaningful explanations.

Mathematics is the art of explanation.

*A Mathematician's Lament:
How School Cheats Us Out of Our Most Fascinating
and Imaginative Art Form*



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Mathematics is the art of explanation. If you deny students the opportunity to engage in this activity - to pose their own problems, to make their own conjectures and discoveries, to be wrong, to be creatively frustrated, to have an inspiration, and to cobble together their own explanations and proofs - you deny them mathematics itself.



Interest in learning

What features of:

- the activities
 - the environment
- make learning more likely?



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