IB AFRICA, EUROPE & MIDDLE EAST REGIONAL CONFERENCE 2014

ROME • 16–19 OCTOBER

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Concepts, combined with knowledge and skills, develop intellectual depth and deeper understandings

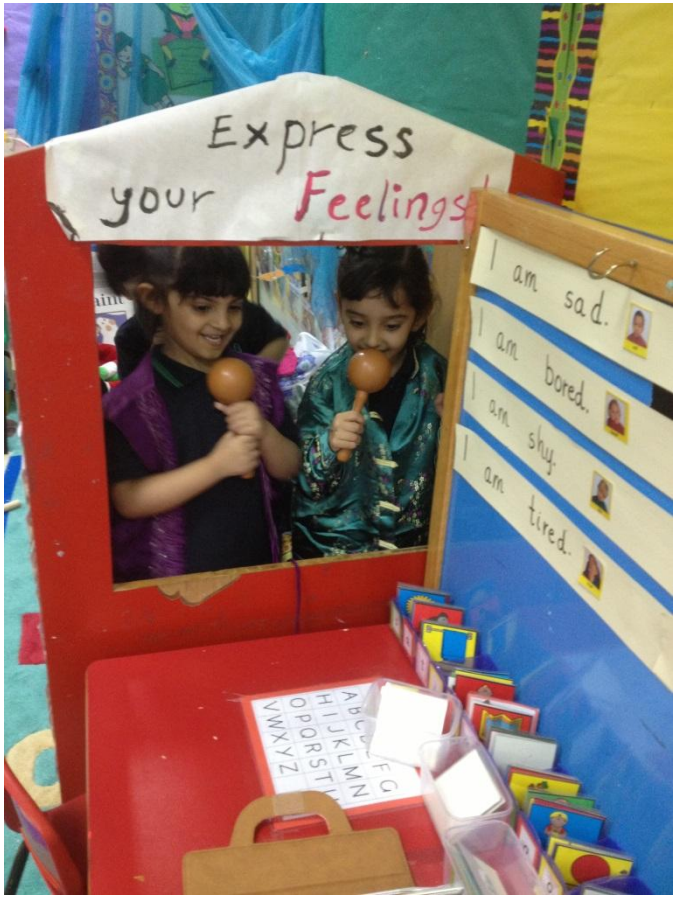
When we first arrived at KBS in 2010 this is what our classrooms looked like…

…we realised that something had to change!!


change is difficult.
not changing is fatal.

In December 2010 we were accepted as a candidate school for the PYP and so, our journey began…

Classrooms started looking like this…

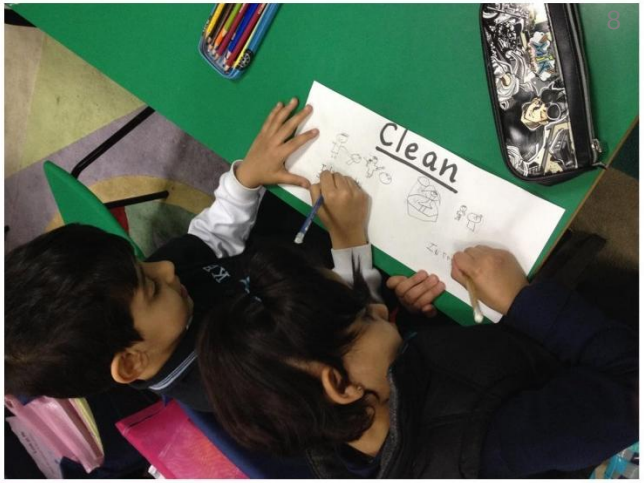


We got out into our community...

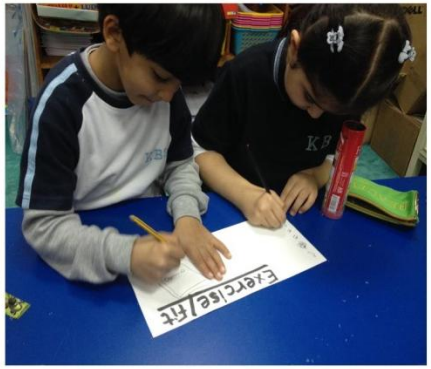
…(and not just to the Scientific Centre!!)

RAINBOW ACTIVITY

Sorting out food and categorizing it in to 4 groups according to its color - fruit and vegetables, meat, milk, and grains.



Inquiry into different ways to maintain their well-being and how to stay healthy.



Students started reflecting on some of their actions and making informed, healthy choices

Our students kick started their creativity…

Grade 4 Stop Motion

…and assessments became about more than memorising facts for quizzes and tests!!

Notice the change?

We were getting there…

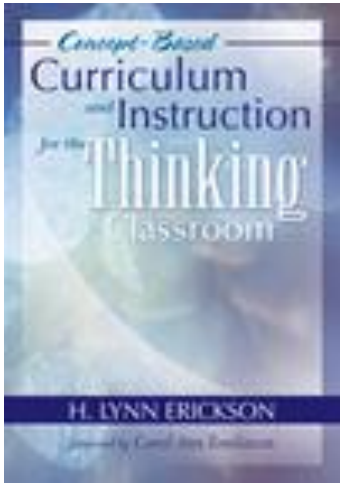
But we were still pretty much completely confused about how these things…

2. What do we want to learn?

What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?

…and how they fitted in to the big scheme of things (other than in box 2 on our PYP planners)

With concepts as our next focus we found this book…



And then, a workshop in Dubai presented by the author.

Yes please!! (and off we went)

The date was January 2014

We did some serious reflection about…

What do *thinking classrooms* look like?

How can we move from a two-dimensional…

to a more effective *three-dimensional model* for curriculum and instruction to foster thinking classrooms?

How is knowledge structured?

How can we USE this structure to focus teaching and learning, and significantly improve the academic performance of all students?

What is concept-based curriculum?

How is it different from the traditional *topic/skill-based curriculum*?

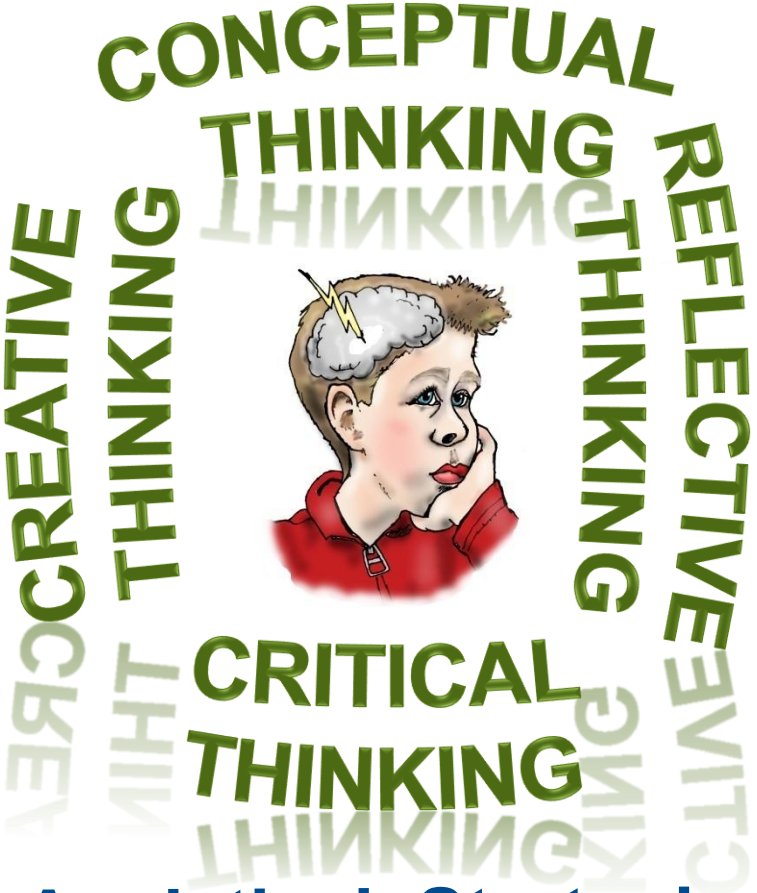
How do we *scaffold thinking* from lower to higher levels?

What is a *conceptual lens* and why is it essential to develop higher levels of thinking, and increased motivation for learning?

Information without Intellect is Meaningless

Critical, Creative, Reflective

Curious, Playful



Metacognitive

Analytical, Strategic

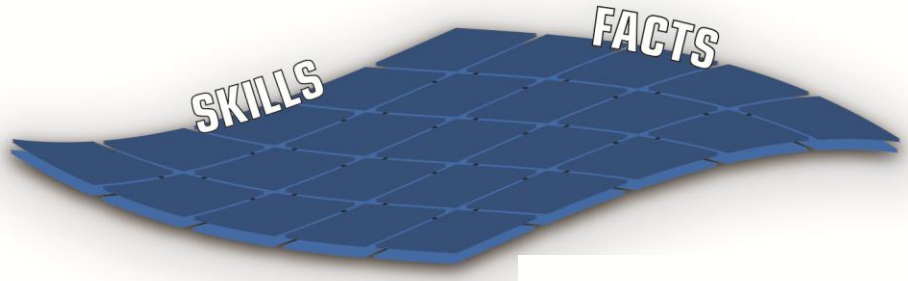
Traditional Curriculum... is Topic Based

HISTORY: Early European Migration, World War I and II, our Australian government, Indigenous Peoples of Australia, the Irish Potato Famine, Adolph Hitler, The Holocaust, The Industrial Revolution…

Language Arts: The Cat in the Hat,, Shakespeare, British literature, the eight parts of speech …

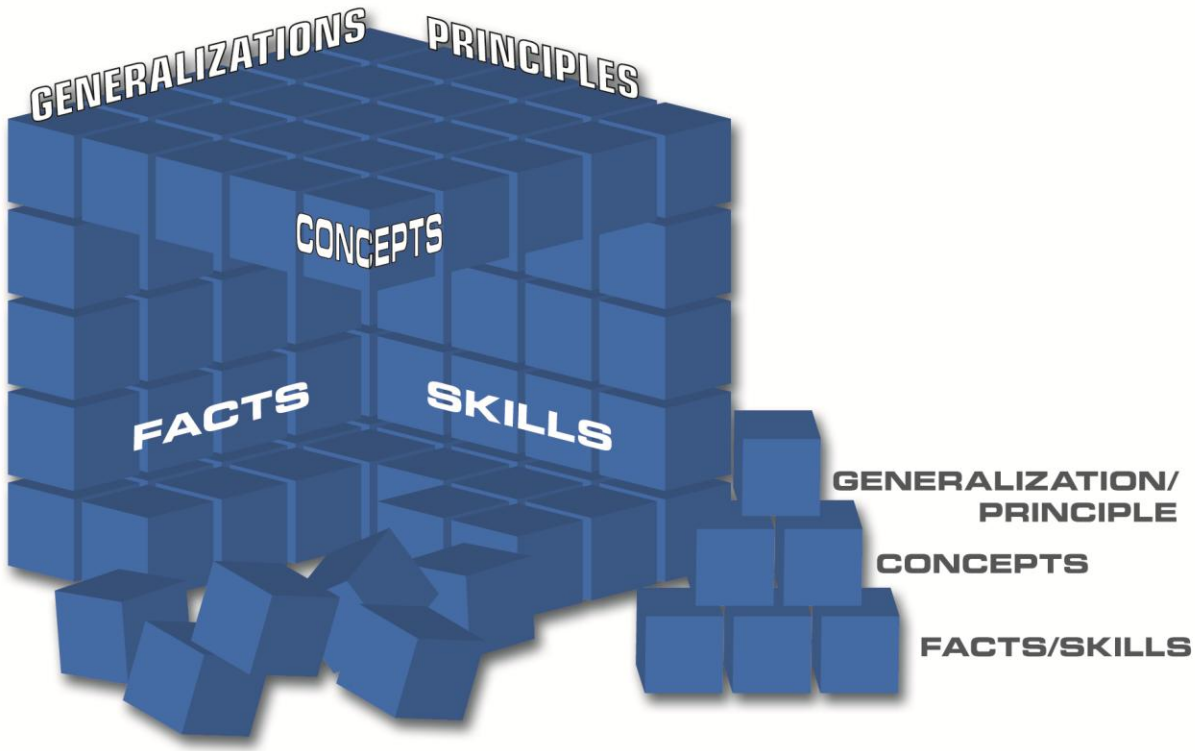
Science: The Earth's crust, the solar system, the human body, the rocks and minerals, living things…

2D CURRICULUM/INSTRUCTION
TOPIC/SKILL-BASED MODEL



versus

3D CURRICULUM/INSTRUCTION
CONCEPT-BASED MODEL



Two-dimensional *versus* Three-dimensional

Coverage-centered
"inch deep, mile wide"

Intellectually shallow
- lacks a conceptual focus to ignite synergistic thinking

Idea-centered
-facts and skills provide a foundation to understand conceptual, transferable ideas.

Intellectual depth
-a "conceptual lens," or focus, requires mental processing between the lower and conceptual levels of thinking – producing intellectual depth and understanding.

Two-dimensional *versus* Three-dimensional

Inability to transfer factual knowledge

- facts do not transfer; locked in time, place, or situation.

Concepts and Generalizations Transfer

-allows the brain to make connections and see patterns.

Fails to meet the intellectual demands of the 21st century

Develops the intellect to handle a world of increasing complexity and accelerating change.

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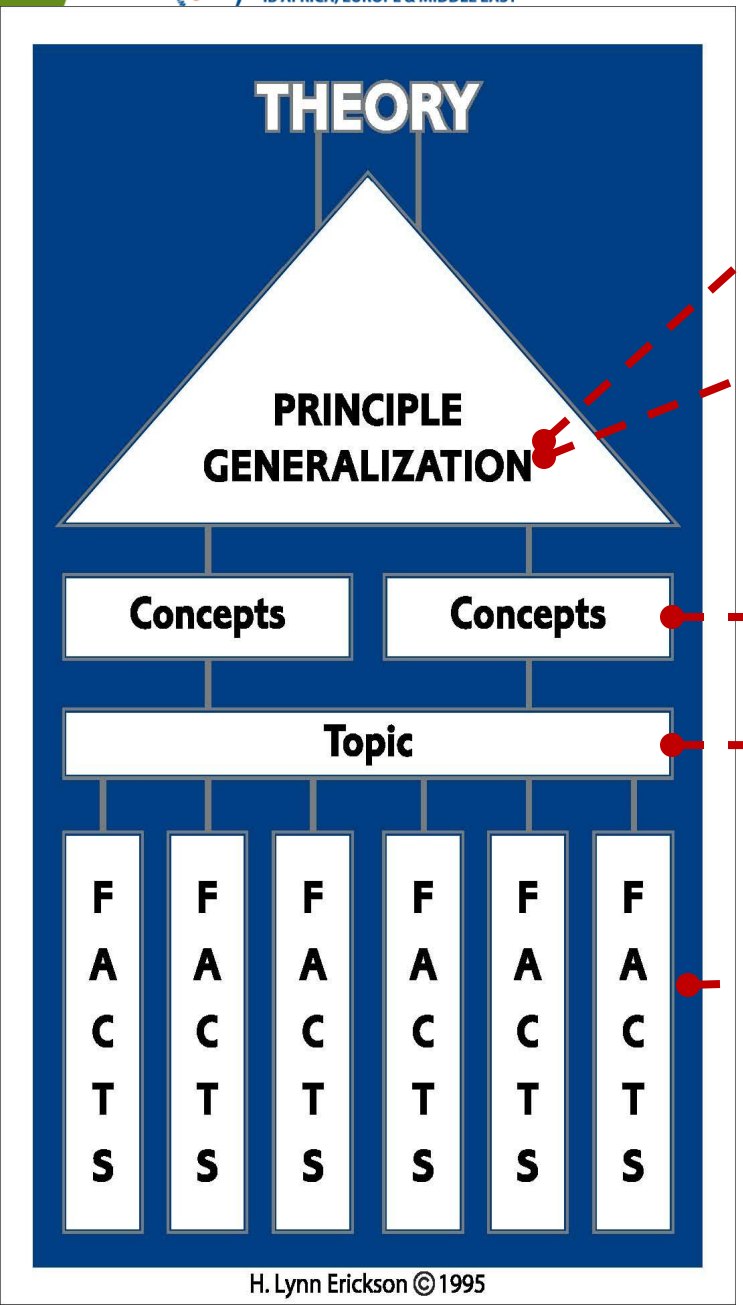
The Structure of Knowledge

The Structure of Knowledge



1. People **migrate** to meet a variety of **needs**.
2. **Migration** may lead to new **opportunities** or greater **freedom**.

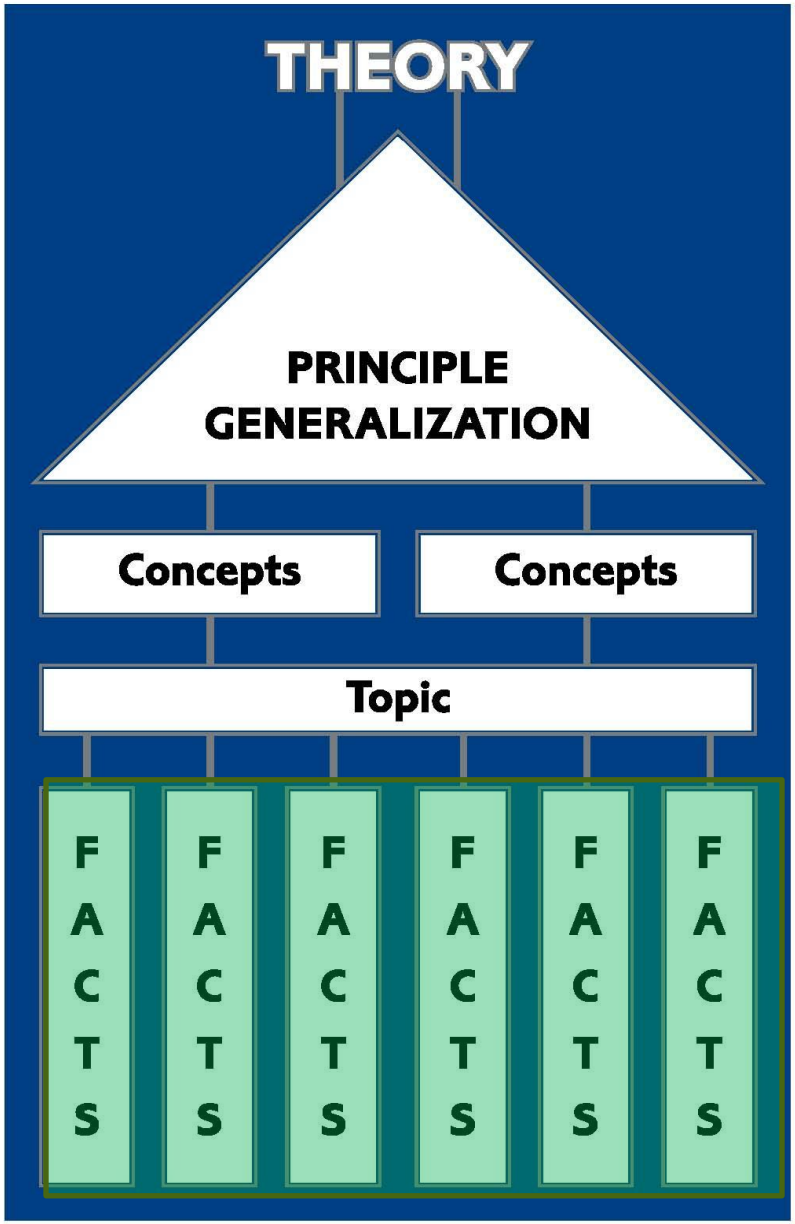
- Migration
- Opportunity
- Needs
- Hardship

Westward Movement

Early American settlers migrated west.

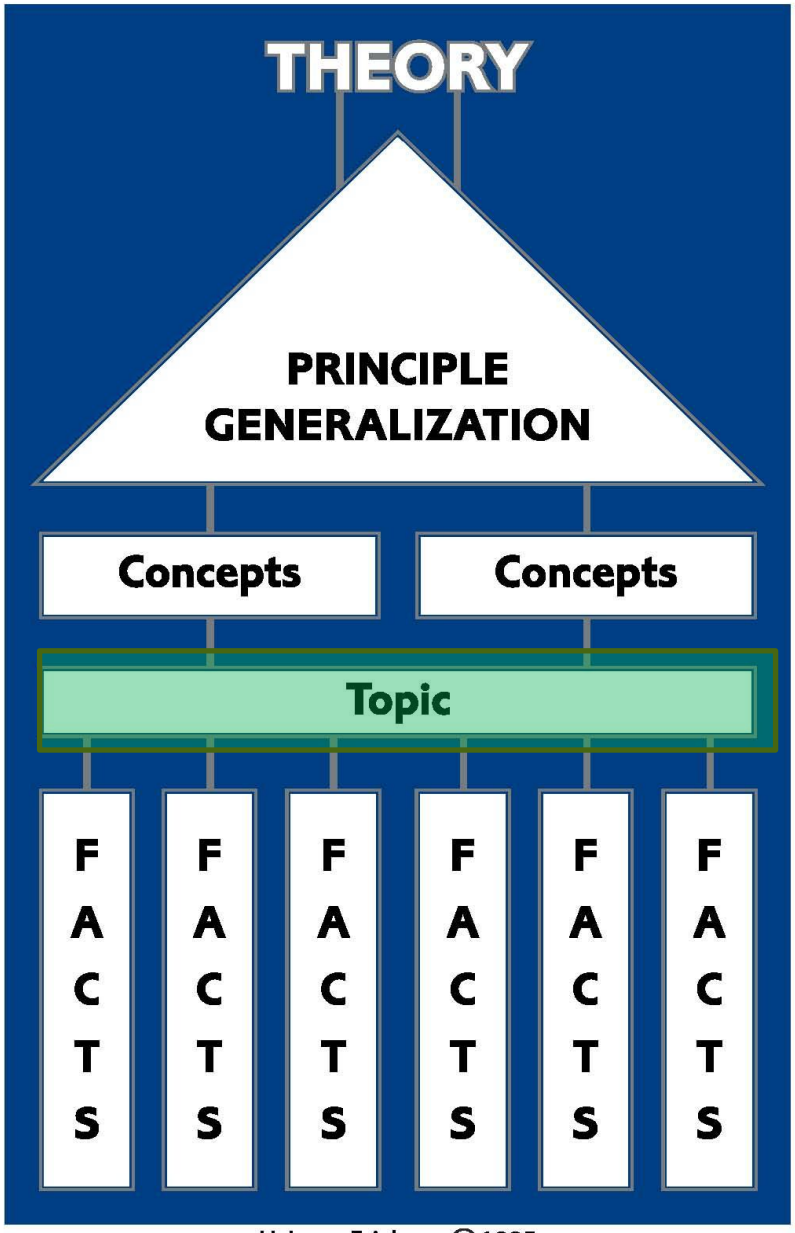
Early American settlers looked for new opportunities.

The Structure of Knowledge



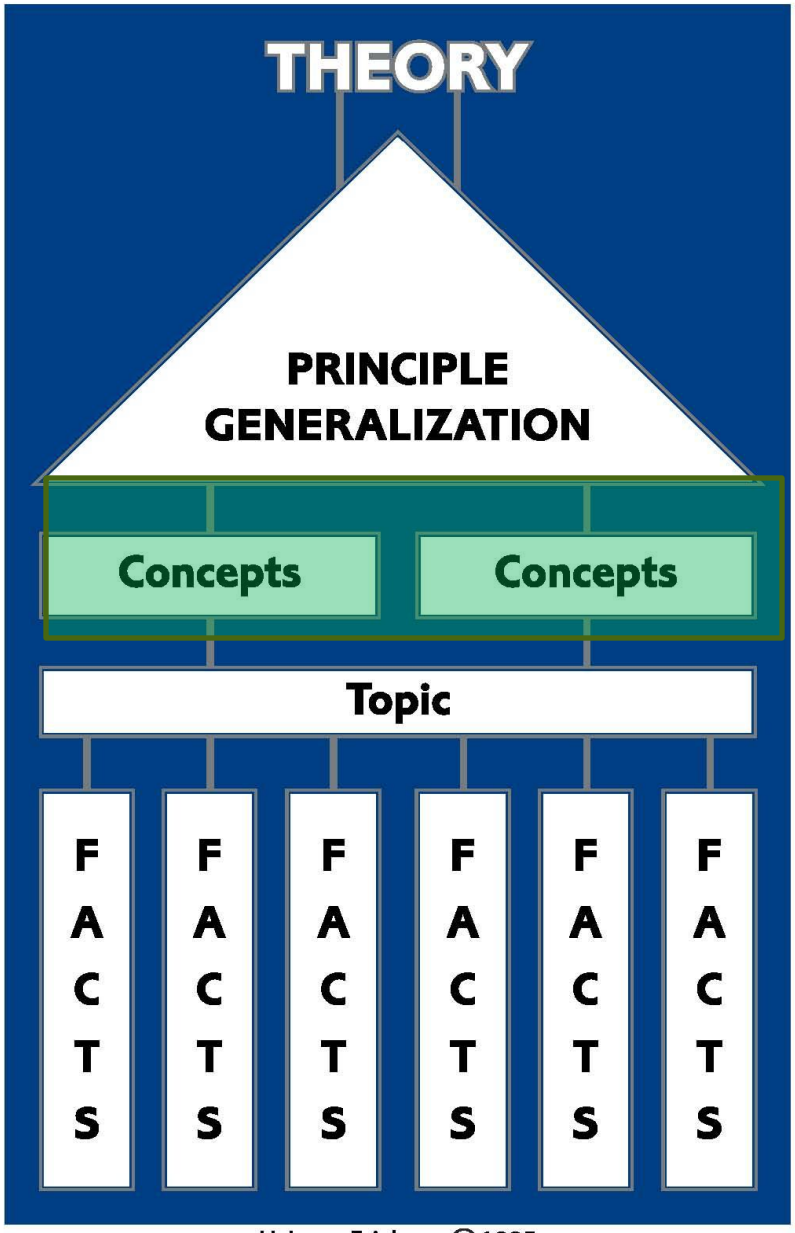
Facts: Provide support for Principles and Generalizations. Locked in time, place or situation. Do not transfer.

The Structure of Knowledge



Topics: Specific; Locked in time, place or situation. Do not transfer.

The Structure of Knowledge

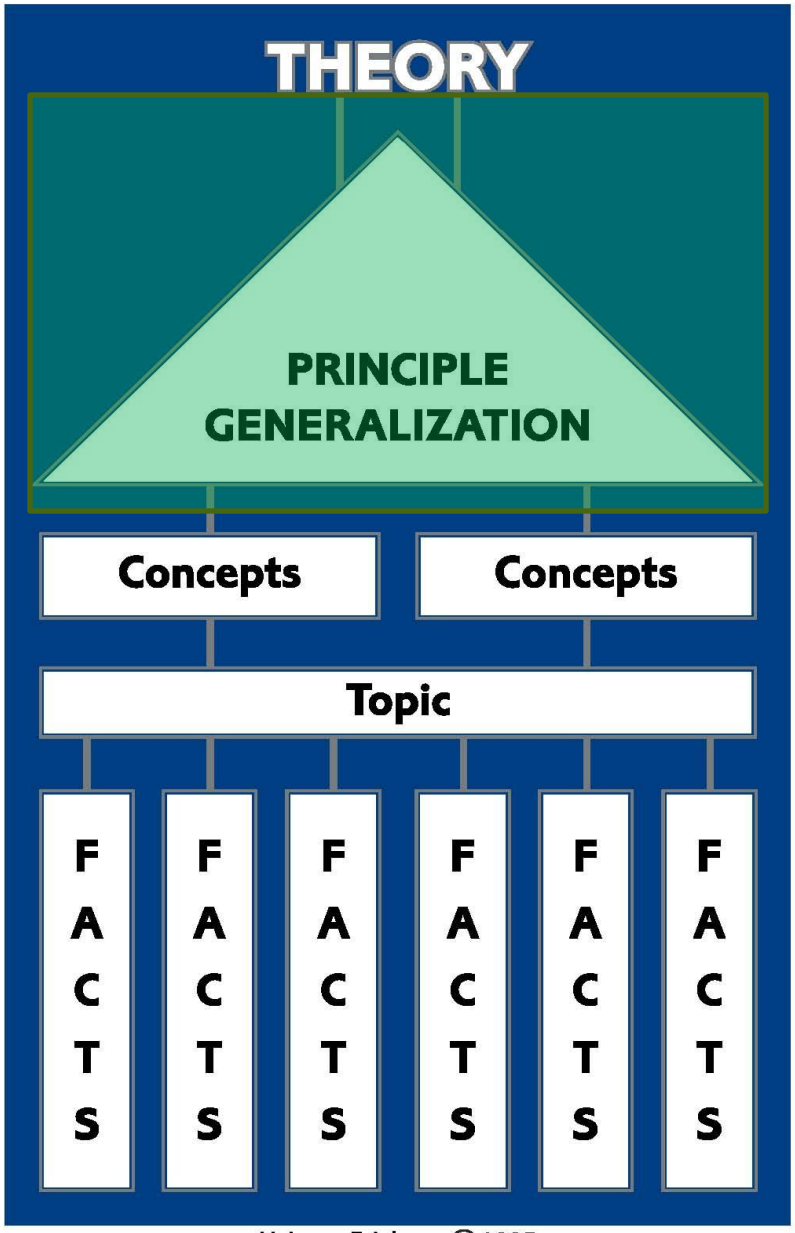


Concepts: Mental constructs drawn from the topic

Concepts transfer

1 or 2 words or a small phrase, Timeless, Universal,
Abstract to different degrees

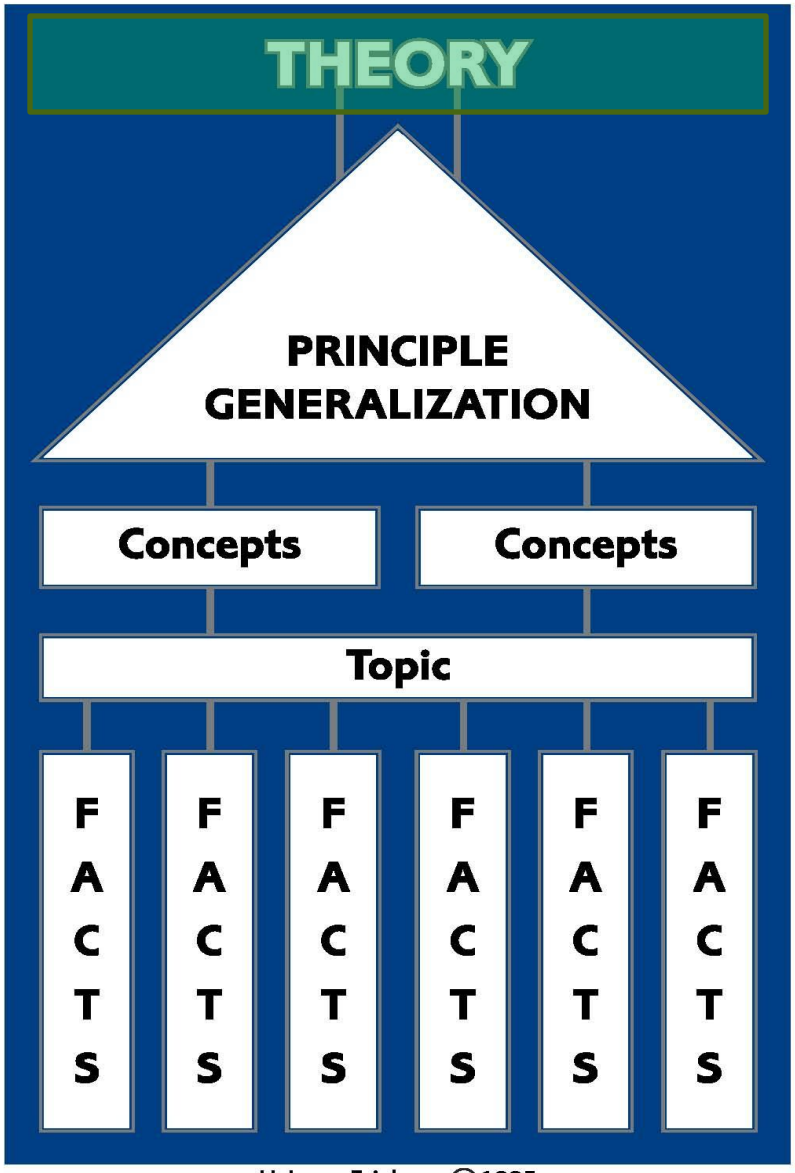
The Structure of Knowledge



Principle: A generalization that rises to the level of a Law or Axiom. Does not use qualifiers.

Generalization: Two or more concepts stated in a sentence of relationship that transfers through time across cultures and across situations. Supported by the facts.

The Structure of Knowledge



Theory: A supposition or set of conceptual ideas used to explain a phenomenon or practice.

Concepts vs. Topics

Remember

Concepts – transfer, timeless, universal, abstract

Topics – do not transfer, specific, locked in time, place or situation

Now it's your turn!

Using the cards provided, decide with those around you whether they are concepts or topics.

The benefit of using concepts is that they can provide direction to a unit. They give teachers and students a focus for their learning. They allow for a deeper understanding in the unit.

Exploration/discovery

Change/ societies

Resources

Our World

Cultures/ beliefs

Natural disasters

Government/ function

Connection

Change/ inventions

Transportation

Form/ function

Pollution/ responsibilities

So, now let's have a go at using some conceptual lenses to see the different direction you can take a unit.

Our Community

Now let's see how we can use concepts to write some really strong generalisations (aka central ideas)

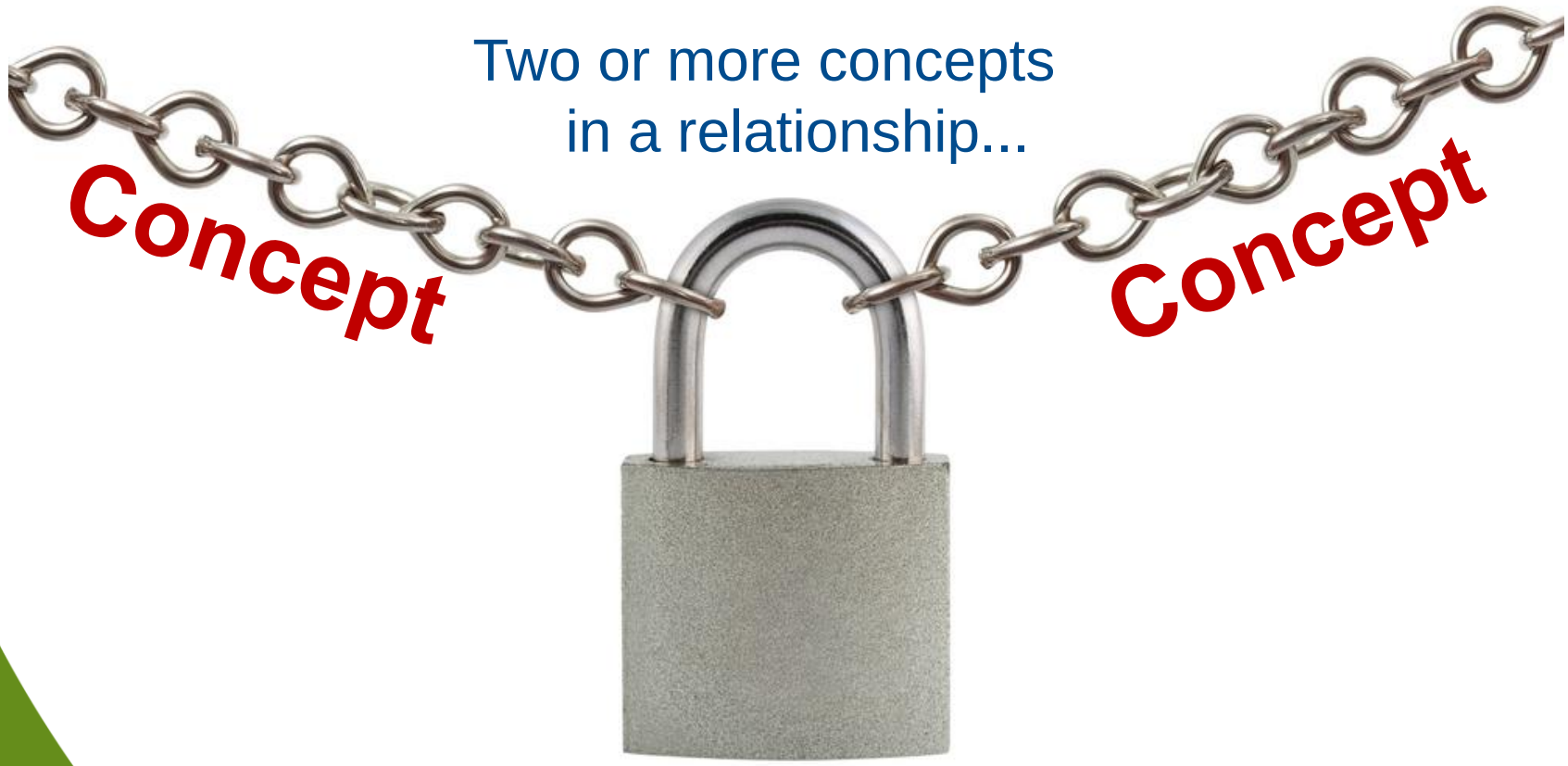
GENERALIZATIONS are SUMMARIES OF THOUGHT

"WHAT DO I UNDERSTAND as a result of my study that I can *TRANSFER*?"

GENERALIZATION=

Essential or Enduring Understanding, Statement of Inquiry or Central Idea

Two or more concepts
in a relationship...



CONCEPTUAL IDEAS THAT TRANSFER
DEVELOP "DEEP UNDERSTANDING"

When we teach to the levels of concepts and generalizations we are teaching for deep understanding and the transfer of knowledge.

All cultures have celebrations.

Level 1 Verbs ("No No" Verbs)

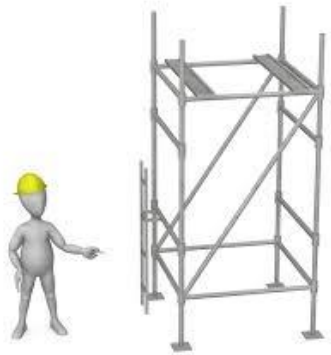
affects | impacts | influence | is, are, have

Checking Our Generalizations

- No proper or personal nouns
- No pronouns in sentence
  ("our, we, they…")
- Has a present tense verb
- Contains at least two concepts
- Is a transferable idea that is supported by the factual content

- May need a qualifier
  ("often, can, may")
  if not true in all situations –
  but is still an important idea

Scaffolding Thinking



Scaffolding Thinking to Complex Levels

Social Studies

Level 3
Traditions help to unify a people.

Level 2 **So what – is the significance or effect?**
Celebrations express traditions of a culture.

Level 1 **Why do cultures have celebrations?**
All cultures have celebrations.

Why do we need to move away from Level 1 generalizations?

No students should have to settle for Level 1 Generalizations
They do not provide enough depth of study. They are flat, evident and there is a low potential to extend thinking.

.

All students should work with Level 2 Generalizations.
This allows students to get in to the 'why' and demonstrate a deeper understanding. They show the significance or effect that's hiding in a Level 1 Generalization.

More advanced students may be challenged by exploring Level 3 Generalizations.
The students will get in to the 'so what' and go one step further past the 'why.' Level 3 Generalizations probe for deeper significance or impact behind a Level 2 Generalization.

Now it's your turn

SO WHAT?

So what do we do with all of this?

How has using concepts to drive the development of our Central Ideas helped our students develop a deeper understanding of concepts so that their knowledge and skills are transferable?

In Class……

Using Conceptual Lenses

In Planning…..

Developing central ideas and the curriculum.

Thank you