



# **INQUIRY-BASED LEARNING IN EARLY STEM** **SCIENCE , TECHNOLOGY, ENGINEERING, MATHEMATICS**

**HEIKE HENDERSHOT, NATIONAL TRAINING MANAGER**



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# AGENDA

**WHAT?** Inquiry-based STEM learning

**WHY?** Skills & Abilities for the future

**HOW?** Real-life STEM



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# STEM?



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# INQUIRY-BASED LEARNING

Children are confident and involved learners.

Each child is to be respected for their prior knowledge, competencies and experiences.

Children's interests drive successful inquiry-based learning.

Children participate in decision-making processes.

Concepts are temporal and are constantly refined based on new learning.



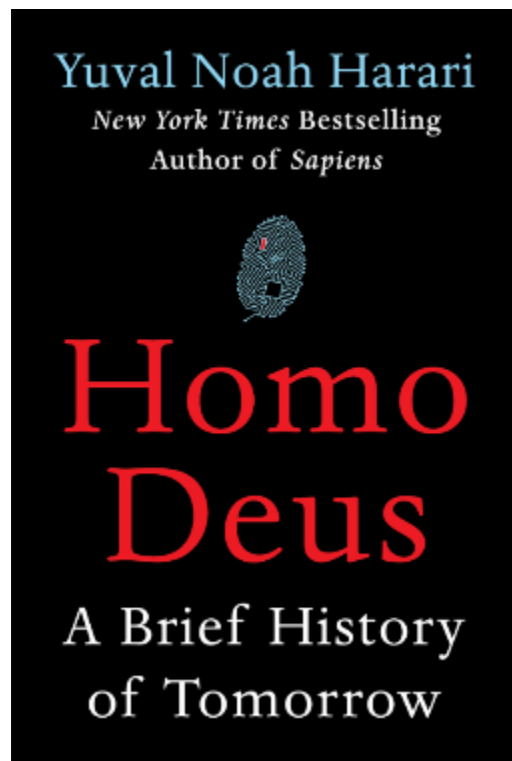
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# FUTURE SKILLS



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# FUTURE SKILLS

58% of current students under 25 are studying for jobs that will be radically changed by automation



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# FUTURE SKILLS

Responsibility & Independence

Self confidence

Problem solving

Meta-cognitive skills



Critical thinking

Resilience

Research skills

Social & Communication skills



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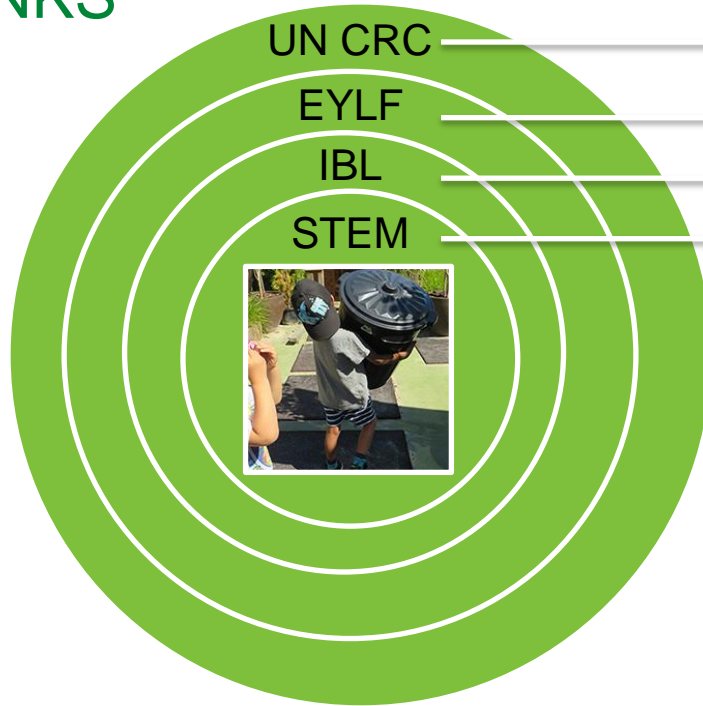
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# LINKS



Expression, inquiry & individuality  
Outcomes, principles and practices  
Children's ideas & decision-making  
STEM is everywhere!



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# WORKSHOPS



Computational  
thinking



Inquiry-based  
learning and  
co-construction



Metacognition



Project work



Technical  
education



Mathematical  
reasoning



Scientific  
models



Language  
development



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**THANK YOU!**

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