Good Afternoon!

Hands-On!

Integrating Technology, Math, and Science

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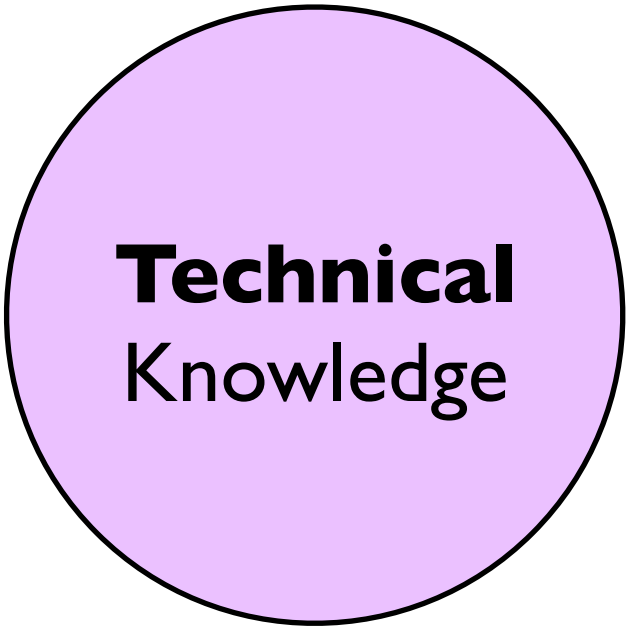
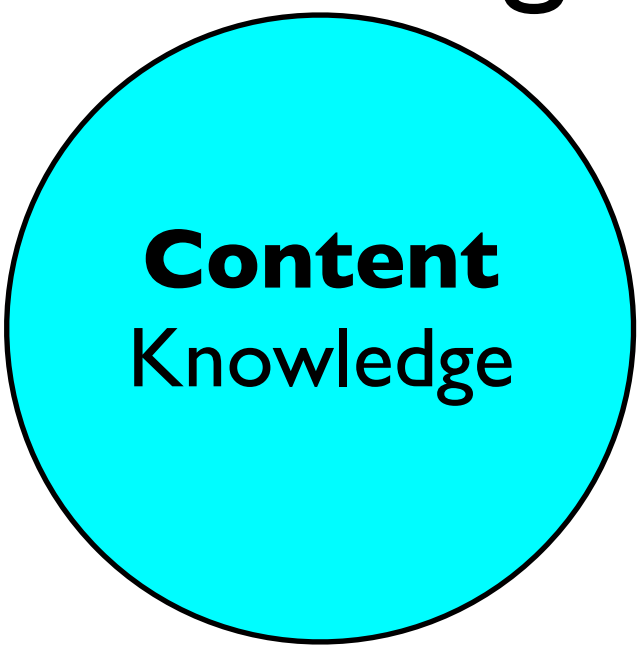
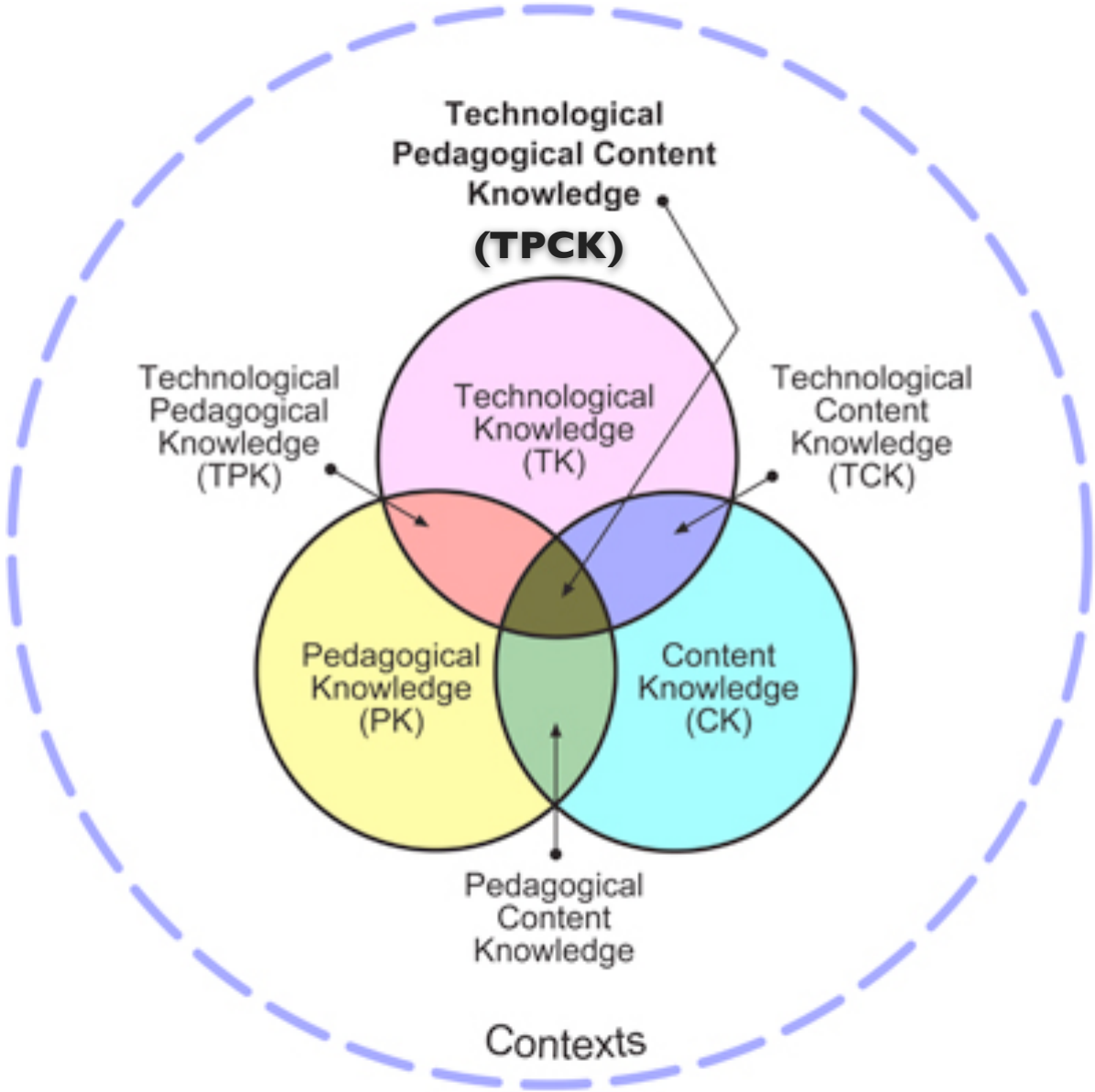


TPCK Model of Teaching




Technological
Pedagogical Content
Knowledge
(TPCK)
Technological
Pedagogical
Knowledge
(TPK)
Technological
Knowledge
(TK)
Technological
Content
Knowledge
(TCK)
Pedagogical
Knowledge
(PK)
Content
Knowledge
(CK)
Pedagogical
Content
Knowledge
Contexts

todaysmeet.com/howmanydrops?

How many drops of water will fit on a penny?

Design a TPCK activity using items from each column

Column 1	Column 2	Column 3
laptop camera	problem based learning	estimation
tablet camera	socratic discussion	mean
cellphone camera	think-pair-share	mode
Keynote	cooperative groups	median
Powerpoint	graphic organizers	prediction
Numbers	documentary	extrapolate
Skype/Google Hangout	demonstration	surface tension
Todaysmeet.com	hands on problem solving	experiment
Internet Browser	real world learning	cohesion
Spreadsheet	simulation	scientific method
iTunes/iTunes U	online research	graphing
Garage Band	laboratory experiment	charts
Apps	digital story telling	molecule
other tech	other pedagogy	other content

How many drops of water will fit on a penny?

Predictions?
What did you find?
What was interesting, surprising, confirmed?
What other questions arose?

How many drops of water will fit on a penny?

What did you find?
What was interesting, surprising, confirmed?
How did your activity connect to TPCK?
What other questions did you come up with?

How many drops of water will fit on a...

nickel?
dime?
quarter?

LIST OF RELATED CITATIONS

Hands On! Integrating Technology, Math, and Science

PRESENTED BY STAFF DEVELOPMENT FOR EDUCATORS (SDE)

Chris Toy

TPCK Model of Instructional Design, http://www.mendeley.com/groups/522011/tpack/papers/

Edutopia on Technology and Education, http://www.edutopia.org/technology-integration

The Technology Principal, NCTM, http://www.nctm.org/standards/content.aspx?id=26809

National Education and Technology Standards, ISTE, http://www.iste.org/standards