

Innovation  
through  
failure

Making it safe  
to make Mistakes

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*These are the main text slides from the workshop as an aide memoire*

# Failure, Mistakes, Getting it Wrong

*There are different types of mistake/failure, some more inevitable and beneficial than others:*

Being stuck

Wrong maths

A mental slip

Wrong hypothesis

Trial and Error

Being tricked

People don't usually *deliberately*  
make mistakes

....but they sometimes  
*deliberately* don't make an effort.

...especially if they really don't care  
about the problem being tackled.

# The Language of Self Defence

“I’m hopeless”

“I’m going to get this wrong”

“I don’t know anything”

“This doesn’t matter anyway”

(“Who cares?”)

# Volunteers, not Nolunteers

*Encourage contributions by:*

Discussion in pairs

Allow anonymous contributions

Positive feedback

Sweets

(make a big thing of small 'prizes' - a single fruit pastille can be enough)

*“The volunteer who gets things wrong often makes the biggest contribution to understanding and problem-solving.”*

Creative exercise

**50 ideas**

**Five minutes**

**Ideas for NEW, ENGAGING props  
to have in a maths classroom.**

# Three stages of problem-solving

**P**roblem

**I**deas

**E**valuation

1. This is a cycle, P-I-E-P-I-E....
2. The model is particularly useful when two or more people are working on a problem together.



This book is about how to manage the process of having ideas/creative problem solving (individually, in pairs and in groups)

