

Flipping the Worksheet

Some alternative ideas

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Rationale

- ‘...learning mathematics is far more successful if learners are actively engaged, encouraged to think mathematically and to see links and connections.’

<http://stem.org.uk/rxzr>



Why this workshop?

- To share our experiences of using small-group activities as an alternative to the traditional worksheet
- To explore the benefits of using alternative resources instead of worksheets
- To give you the chance to try some activities
- To get feedback and generate new ideas



Different types of activity

- Grouping or matching
- Jigsaws (tarsia)
- Venn diagrams
- Multiple representations

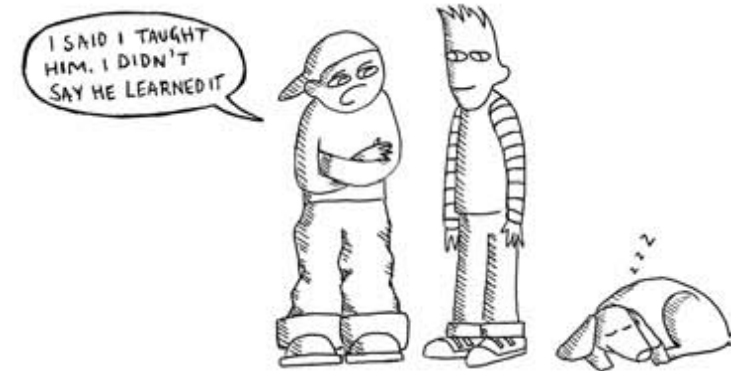
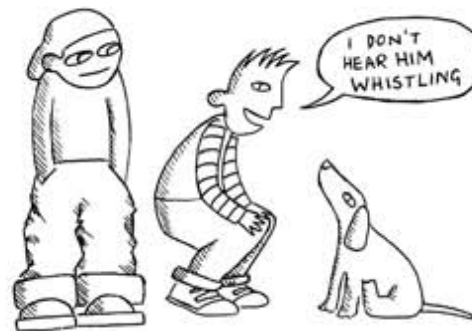


Why use these activities?

- To move from *passive* to *active* learning
- To move from *transmission* to *challenging* teaching

Malcolm Swan, 2005

Improving Learning in Mathematics: challenges and strategies



Different topics

- Descriptive statistics
- Percentages
- Algebra
- Functions & graphs
- Straight Lines
- Calculus
- Notation and terminology



Sources

- National STEM centre
- Standards Unit Resources
- Own
- TES
- Studymaths



Try some!

- Think about pros and cons, adaptations, other ideas



Discussion and Questions

- Practicalities
- Feedback on different activities
- What makes a good activity?
- Improvements?



Why use these activities?

- To encourage productive group work
- To encourage discussion
- To increase student motivation
- To expose misconceptions
- To provide practice
- To break the ice
- To provide instant feedback
- They are mostly 'self-marking'



Why use these activities?

- To enable students to think from their own perspective instead of being told the facts and formulas
- To enable students to formulate their own ideas about concepts/terminology used as opposed to a more formulised way of learning statistical terminology.



Create your own resources

- Word
- Tarsia

<http://www.mmlsoft.com/index.php/products/tarsia>



Contact us

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Email us and we will send you links to the resources and copies of our own.

