

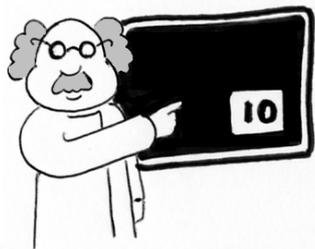
STARTER FOR 10...

0. TRANSITION SKILLS

A selection of resources to support the transition to A-level and equivalent with the skills required at that level, using simple quizzing and lesson starters which teachers can easily incorporate into lesson plans

Kristy Turner and Catherine Smith

RSC School Teacher Fellows 2011–12



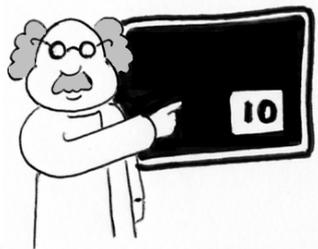
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0. TRANSITION SKILLS

Biographies

Kristy trained as a teacher following a PhD in synthetic chemistry at the University of Glasgow and has been teaching chemistry in state and independent schools in Greater Manchester since 2006. Since 2015 she has combined teaching in school with teaching in higher education, teaching foundation and undergraduate chemistry students at the University of Manchester and carrying out chemistry education research.

Catherine graduated from the University of Sheffield in 1998 with an MChem degree before moving to the University of Cambridge to undertake PhD studies in organic synthesis. Following postdoctoral work as a Junior Research Fellow at Girton College, Cambridge, Catherine moved into secondary teaching through the Graduate Teacher Programme. She has been teaching at Hinckley Academy and John Cleveland Sixth Form Centre, Leicestershire, since 2006, where she now holds the position of Lead Practitioner for Teaching and Learning. In 2011–12 Catherine had a year's sabbatical from school to take up a position as an RSC School Teacher Fellow based at the University of Leicester looking at the transition from school to university.



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0. TRANSITION SKILLS

Contents

0.1 Basic chemistry competencies

- 0.1.1. Balancing equations
- 0.1.2. Constructing ionic formulae
- 0.1.3. Writing equations from text

0.2 Basic mathematical competencies

- 0.2.1. Rearranging equations
- 0.2.2. BODMAS (order of operations)
- 0.2.3. Quantity calculus (unit determination)
- 0.2.4. Expressing large and small numbers – Standard form and scientific form
- 0.2.5. Significant figures, decimal places and rounding
- 0.2.6. Unit conversions 1 – Length, mass and time
- 0.2.7. Unit conversions 2 – Volume
- 0.2.8. Moles and mass
- 0.2.9. Moles and concentration

0.3 Basic practical competencies

- 0.3.1. Laboratory equipment
- 0.3.2. Recording results
- 0.3.3. Drawing scatter graphs

Transition skills answers