



RADMASTE Centre  
M114 Marang Block  
Wits School of Education  
27 St. Andrews Road  
PARKTOWN

P.O. Box 256 WITS 2050  
Telephone: 011-717-3471  
Fax: 011-717-3470

peter.moodie@wits.ac.za

## **A four-day course on CAPS for science and technology teachers – matter, materials-processing and structures**

The aim of this course is to give you an in-depth understanding of the content of the **Intermediate Phase** CAPS curriculum for Term 2 (or, for 3-term schools, late March, April and May), which deals with the properties of matter and the uses of materials in structures.

We plan the course to develop teachers' knowledge of the subject matter but we also deal with the ways children understand or mis-understand the topics. So it is designed for both new and experienced teachers.

The course covers the CAPS content with real equipment and practical tasks. No PowerPoint slides unless essential! Teachers get a file with notes and activities.

The days' programmes are interlinked and the course runs for four days at the Wits University Education Campus, in Parktown.

Assessment is self-referenced assessment; in other words, you can compare your ending performance to your starting performance.

### **COURSE OUTLINE**

- Ways to change the properties of materials or make new materials
- Designing fair tests of the new properties
- Developing the children's language for talking about materials and properties
- Designing – choosing materials with the right properties for the purpose; shaping materials to make them stronger
- Designing, making and testing different kinds of structures
- Investigating properties of some materials: solids, semi-solids, liquids, gases / vapours; metals and non-metals; magnets
- Children's cognitive development - the mental operation of conservation of substance
- Melting, evaporating, condensing and solidifying materials
- Modelling the water cycle in the classroom and understanding it in nature

---

Trustees: Prof. JD Bradley, S Dlamini, EA Papenfus

*Setlhare means "a tree". In Africa, people meet under trees to talk about important matters and children play in trees. Curriculum should make places for teachers to meet and children's minds to play.*

- Helping pupils to design ways to test their own ideas
  - Mixtures and inventing ways to separate them
  - Particles in a material when it's solid, liquid or gas – the Particle Kinetic Model of Matter
  - Assessment of pupils' thinking and misconceptions about particles
  - Solutions, soluble and insoluble substances and solubility; growing crystals and explaining their consistent shapes
  - Designing investigations of the factors that affect rates of dissolving; controlling variables; recording, graphing and interpreting the data.
- 

**Venue:** The course will be held at the RADMASTE Centre, Wits University Education Campus, 27 St. Andrews Road, Parktown.

