

MIND YOUR LANGUAGE!

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- Chemistry is difficult to teach and learn due to:
 - Lexicon required (semantic density)
 - Abstract concepts (semantic gravity)

New concepts, ideas,
or theories.
Abstract in context

**Weaker
Semantic Gravity
SG-**

E.g. The electrons in benzene can
attack other species, making
new benzene-containing products

- Semantic density and semantic gravity are independent of each other
- Analysis of semantic density and semantic gravity over an extended period can lead to a semantic profile, which can lead to semantic waves

No *advanced* chemistry-specific terminology or concepts required to understand the explanation.

**Weaker
Semantic Density
SD-**

E.g. There are 6 carbon atoms in this ring

Advanced, chemistry-specific terms needs to be manipulated or unpacked before the student can start to understand the explanation.

**Stronger
Semantic Density
SD+**

E.g. Benzene is a cyclic-triene that has aromatic-stability and can act as a nucleophile.

- An awareness of language used when discussing chemistry, and building student confidence to use language correctly, is extremely important

Concrete example, experiment; relates to context or is a statement.

**Stronger
Semantic Gravity
SG+**

E.g. Benzene is a colourless liquid

For further context-based information please see:
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