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**Graph Theory for fun**

Inspire children (age range 6-10) by Mathematical investigation of graph colouring, chromatic numbers, map colouring and Eulerian paths and circuits.

Explore with children some elementary ideas in graph theory, despite mathematically rich, yet accessible to children.

The resources I will be using are mainly booklets and coloured pencils.

Web links:

<http://jdh.hamkins.org/math-for-eight-year-olds/>

<http://mathlabforkids.com/links.php>

My main area of research is Networks analysis. Networks are mathematical representations of the interactions between the components of complex system and can be modelled by graphs. A graph G=(V,E) consists of a collection of vertices V, corresponding to the individual units of the observed system, and a collection of edges E, indication some relations between pairs of vertices. Grap[h modelling real systems, i.e. social, biological and technological networks, helps highlighting and discovering non trivial features. Describing and validating Networks is one of my challenges.

This activity might inspire young children making them curious about the fascinating world of graphs. They could see how simple models can be used in everyday life and how ideas, that go back to Euler time, can help us thinking 'out of the box'.

No

Maths

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