

HIAS MOODLE+ RESOURCE

Making shapes

A TASC approach to problem solving

Jo Lees
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Overview

In this document

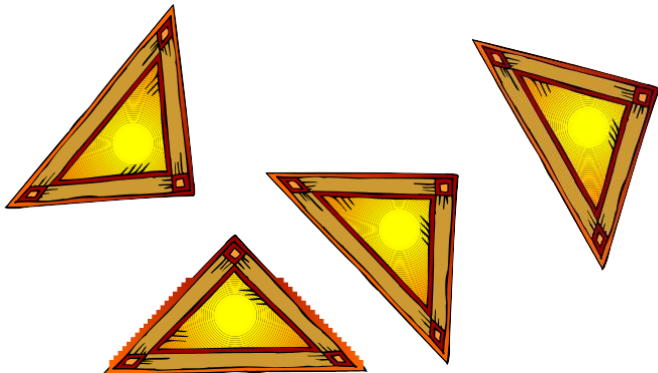
The TASC (Thinking Actively in a Social Context) Wheel provides an ideal structure for approaching some types of mathematical problem solving activities. This resource describes an activity that could be developed in mathematics or in the context of a cross curricular theme.





More information about the TASC Wheel approach can be found in many places on the internet.





Points to consider when using this resource

The resource suggests an approach with explicit steps that can be used to structure the planning of the curriculum activity. Teachers will make their own decisions on the length of time to spend in each stage according to age, interests and prior experience. It is not intended to suggest that each step takes an equal amount of time or that all steps should be taken in one lesson

Making Shapes



<p>Gather and organise: This problem is about 2D shapes. What do we know about 2D shapes and their properties?</p>	
<p>Identify - What is the task? If you start with a square and draw in the diagonals, you create 4 triangles. Cut out the four triangles. What new shapes can you make using some or all of the triangles. You can only match whole sides - not part sides or corners to sides. Success criteria can be set according to ability of group/objectives. E.g. "I will have found some different shapes and will be able to name them", "I will have found at least "X" number of new shapes." (This could also extend to become a task about symmetry. How many lines of symmetry has each new shape got?)</p>	
<p>Generate: How could you work to solve this? Is there a way to work systematically? Would trial and error work?</p>	
<p>Decide: Decide how to proceed - and how to work as a team. Consider which is the best plan and why.</p>	

<p>Implement: Work together as a team to complete the task.</p>	
<p>Evaluate: How well have you done? How many different new shapes have you found? Do you think you have found them all? How can you be sure? Do you think you worked efficiently? Did you find you had made some shapes that were the same as your partners? How did you find out and check? Could you have worked in a different way?</p>	
<p>Communicate: Share your work with another group. Show them the shape with the most sides. Are any of your shapes the same as theirs. Look for congruence. Were there any shapes you were unable to name? How did you find out what they were called?</p>	
<p>What have we learned? Did you learn some new shapes and their properties? Have you added to your mathematical vocabulary?</p>	

Maths Team Contact Information

Jo Lees – Area Inspector – Mathematics

Email: jo.lees@hants.gov.uk

Tel: 02380 816139

Jacqui Clifft – Area Inspector – Mathematics

Email: jacqui.clifft@hants.gov.uk

Tel: 02380 816139

Jenny Burn – Inspector/Adviser – Mathematics

Email: jenny.burn@hants.gov.uk

Tel: 01962 876207

Tessa Ingrey – Teaching & Learning Adviser – Mathematics (P/T)

Email: tessa.ingrey@hants.gov.uk

Tel: 01962 876207

Natalie Ivey – Inspector/Adviser – Mathematics (P/T)

Email: natalie.ivey@hants.gov.uk

Tel: 01962 876207

Dave Parnell – Teaching & Learning Adviser – Mathematics

Email: dave.parnell@hants.gov.uk

Tel: 01962 876207

Rebecca Reynolds – Teaching & Learning Adviser – Mathematics

Email: rebecca.reynolds@hants.gov.uk

Tel: 01962 876207

Brenda Robertson – Inspector/Adviser – Mathematics

Email: brenda.robertson@hants.gov.uk

Tel: 01962 876207

Kate Spencer – Teaching & Learning Adviser – Mathematics

Email: kathryn.spencer@hants.gov.uk

Tel: 01962 876207

Curriculum Centre contact details:

Sheila Kyme - Curriculum Centre Manager

Email: sheila.kyme@hants.gov.uk

Tel: 01962 874831

Lynne Ridout - Senior Administrative Assistant

Email: lynne.ridout2@hants.gov.uk

Tel: 01962 874830

For further details on the full range of services available please contact us using the following details:

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