Lesson as part of block B2 (new maths framework) taught to top set Y4 class. Observed by HT and graded 'outstanding' due to pace, learning and questioning.

M+O	Practise weekly target- 8x table. Timed questions on worksheet, marked together.
Lesson:	Draw polygons and classify them by identifying their properties, including their line symmetry.
Introduction:	Put up on IWB a page of regular and irregular polygons (identified with numbers) and ask children to choose a shape and name one property. Teacher states a property and asks children to show on their number fan which shape could fit the criteria e.g. *a regular polygon, no lines of symmetry*. Ask children: *How do you know it is in this group? What do you look for?* Show the flash program. Define 'convex polygon' as one whose internal angles are all less than 180°. Define 'concave polygon' as one where one or more internal angles are more than 180°. Demonstrate with the flash program. Use 'hide details' button to hide the labels. Can children identify a variety of concave and convex polygons? Use 'regular shape' button to turn the shape into a regular polygon. Explain that regular polygons always have equal sides and equal measures. *Can we make this regular shape concave? Explain why you think that?*
Task:	*Describe a range of polygons using given properties*
Above average:	Complete table to show properties of regular and irregular polygons. Classify polygons using a Carroll diagram with given criteria Extension: Create own Carroll or Venn diagram and use to classify polygons.
Average:	Complete table to show properties of regular and irregular polygons. Find and colour concave polygons, mark lines of symmetry and name a range of regular and irregular polygons.
Plenary:	Use the properties flashcards. [Select two cards, such as 'is a regular polygon' and 'has at least one line of symmetry'.] *Show me a polygon that fits both of these criteria. What do you look for?*
Resources:	• IWF • http://www.mathopenref.com/polygonconvex.html (full screen) • Properties flashcards • Worksheets (below) • Number fans • Blank Venn and Carroll diagrams