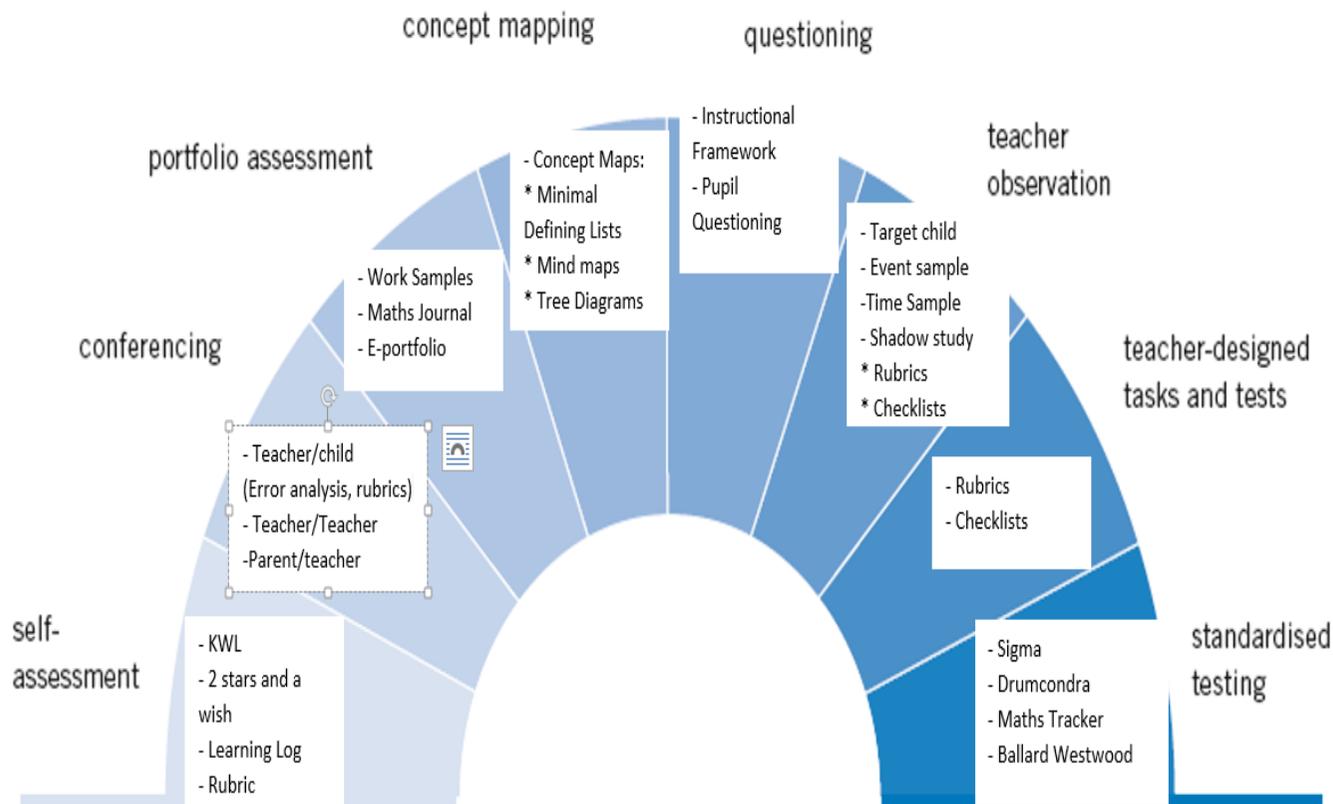


Consider a range of assessment opportunities in using these tasks- (Primary School Mathematics Curriculum Teacher Guidelines p.35)



	Task	Assessment Opportunities	Pupil Voice
		<p><i>NB:Teacher questioning is central to the assessment of ALL activities listed here. In particular, the eliciting phase of the IF provides invaluable assessment info that will dictate the rest of the lesson.</i></p>	
1.	Barrier Game Spatial Relations	<p><b>Teacher observation</b> using language checklist for vocabulary relating to spatial relations</p> <p><b>Teacher/Pupil Conference</b> (great AFL tool)</p>	<p><b>Self-Assessment</b> - Junior/Senior Infant level so verbal self-assessment and peer assessment important e.g. ‘turn to your partner and tell them what you found easiest in this activity/what you found hardest?’ ‘Tell your partner which</p>

	(Level A1: A2: See Manual p.32)		<p>instruction you found easy to follow? Why was this?' Were there any of your pieces that didn't match up? Why do you think this happened?'</p> <p><b>Teacher/Pupil Conferencing:</b> (Teacher takes brief notes and 'goal' is set by child, activity needs to be repeated so that child has opportunity to work on personal learning goal)</p> <p>-What did you find easiest about this activity?</p> <p>-What did you find hardest?</p> <p>-What do you need to work on to get better at this activity? (e.g. shape names, colours, positional language, turn taking, listening and following instructions, giving instructions clearly)</p> <p><b>Portfolio</b> - Photos of completed game boards annotated with pupil comments</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
2.	Nets of 3-D Shapes (Level D2: See Manual p.138-140)	<b>Teacher observation-</b> photographs taken of completed nets	<p><b>Maths Journal</b> – record the nets you created using dot paper, is there a rule to help others create nets that work? What have you learned about cubes?</p> <p><b>Portfolio</b> – Record all of the cube nets that you devised using dot paper, write about what you know about cubes and nets of cubes</p> <p><b>Teacher/Pupil conferencing</b> – as for portfolio</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>

3.	<p>Discovering Angles using Anglegs or Geo-Strips</p> <p>(Level B7: C8: C9: See Manual p.87, 128- 131)</p>	<p><b>Teacher Observation</b></p> <p>Choose a small number of well chosen ‘tracker’ children to observe toward the end of, or after the lesson. Ask each pupil to show you the different angles using geostrips/anglegs, can they name them and define them? Jot brief notes following the pupil’s demonstration. Assume that the understanding, vocabulary and confidence shown by these three or so pupils is reflective of their peers. Use the information gleaned to inform your subsequent teaching. Does the topic need to be repeated, taught in a different way, differentiated, consolidated, revised etc. or can you move on?</p> <p><b>Teacher designed task/test</b></p> <p>Angle Identification activity page 126. Eight shapes are presented to pupils (on a worksheet or on the whiteboard to be copied down on dot paper), pupils are asked, ‘what types of angles can you identify in these shapes?’</p>	<p><b>Maths Journal</b></p> <p>Record the different angles using words and diagrams (i.e. acute, right angle, 90 degree angle, obtuse angle, reflex angle) Explain what a vertex is using words and diagrams</p> <p><b>Portfolio</b></p> <p>Put the assessment task above into the pupil’s portfolio. Ensure that pupils know that this is a task that will be put into their portfolio beforehand.</p> <p><b>KWL</b> (Can be completed in Maths Journal)</p> <p>What do I know about angles now?</p> <p>What would I like to find out about angles?</p> <p>What have I learned about angles?</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
4.	<p>Static Right Angle with Paper-Folding</p> <p>(Level B7: C8: C9: See Manual p.87, 128-131)</p>		<p><b>Maths Journal</b></p> <p>“Create a table with three columns; one for the angles you found in the classroom that measured greater than your right angle, one for shapes that did have right angles and one for angles smaller than a right angle”</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
5.	<p>Constructing 3-D shapes in Skeleton, Solid and Hollow Form</p> <p>(Level C3: See Manual p.103-107)</p>	<p><b>Teacher designed test/task</b></p> <p>Teacher could provide a template for pupil’s to complete. Better still, pupils could be asked to design the template in pairs. List the faces, edges and vertices for each of the shapes you constructed.</p>	<p><b>Maths Journal</b></p> <p>List the faces, edges and vertices for each of the shapes you constructed.</p> <p><b>Portfolio</b></p>

			<p>Pupils annotate photographs of completed shapes</p> <p><b>Self-Assessment</b></p> <p>Talk with your buddy. Tell them what was most difficult for you in this task and what you would do differently next time. Tell them what you did well in this task. Now listen while they tell you. (Teacher takes oral feedback or pupils record their self-assessments in their journals).</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
6.	<p>Sorting 3-D Shapes using Threading Beads</p> <p>Level A2: See Manual p.34-39)</p>	<p><b>Teacher Observation</b></p> <p><b>Teacher Questioning</b></p>	<p><b>Self-Assessment</b> through buddy talk (note, self-assessment strategies such as ‘thumbs up/traffic lights’ are a superficial tool that do little to probe pupil reflection. It is only in the discussion following the use of these strategies that the reflection and learning happen. Traffic lights, for example, do not indicate understanding, only an oral explanation can show the level of cognitive reasoning and conceptual understanding.</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
7.	<p>Creating 2-D Shapes using Lollipop Sticks</p> <p>(Level A3: See Manual p.48)</p>	<p><b>Teacher observation-</b> photographs taken of the 2-D shapes that the pupils created from the lollipop sticks.</p> <p><b>Teacher Questioning:</b> Use of the Instructional Framework to develop higher order thinking</p> <p>Teacher encourages elaboration and extends the pupils mathematical thinking.</p> <p><b>Teacher designed test/task</b></p> <p>Teacher could provide a template for pupil’s to complete, orally describing the properties of the 2-D shapes that they have created. Use of language such as sides, corners, same as...</p>	<p><b>Maths Journal</b> – record the shapes you created using the lollipop sticks.</p> <p>Use of teacher questioning to develop higher order mathematical thinking: How many shapes did you make? What shapes are they? Did you have any sticks left over? Why? Could you do it another way with no sticks left over? Did anyone else make a different number of shapes? Why do you have more/less shapes than...?</p> <p>Discuss the possibilities of creating bigger or more shapes.</p> <p>Pupils discuss the different strategies they used to complete the task. Some will use number patterns and others will use Trial and Error.</p> <p><b>Portfolio</b></p>

			Pupils annotate photographs of completed shapes
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
8.	Co-ordinate Challenge (Level D8: See Manual p.161-163)	<p><b>Teacher observation:</b> Photographs taken of completed puzzle</p> <p><b>Teacher designed tests and tasks:</b> Integration of plotting co-ordinates in Art, such as plotting co-ordinates to give familiar shapes and pupils share what they notice.(Manual pg: 162)</p> <p>Use of “Chair Co-Ordinates” in the classroom in order for pupils to develop their grid and co-ordinates. (Manual pg: 161)</p> <p><b>Teacher questioning:</b> Teacher using the Instructional Framework in order to elicit, support and extend the children’s mathematical thinking, i.e “Identify where 1,4 is. How can you be sure which one is correct?” “Now, design, colour and generate questions for your own treasure grid map.</p>	<p><b>Self-Assessment</b></p> <p>The pupil explains how they reached the solution</p> <p>Talk with your buddy. Tell them what was most difficult for you in this task and what you would do differently next time. Tell them what you did well in this task. Now listen while they tell you. (Teacher takes oral feedback or pupils record their self-assessments in their journals).</p> <p>Teacher could use prompts such as:</p> <p>“I know I’m right because....”</p> <p>“I figured this out by....”</p> <p>“I discovered...”</p> <p>“This will also work for...” (rotational symmetry),</p> <p>in order to help the pupil in their own self-reflection.</p> <p><b>Portfolio</b></p> <p>Pupils annotate photographs of completed Co-Ordinate Challenge.</p> <p><b>Maths Journal</b></p> <p>Pupils record their findings in their Maths Journal</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
9.	Explore, Describe, Compare and Classify the Properties of 2-D Shapes (MDL)	<p>There is a High level of Language and pupil reasoning in this activity.</p> <p><b>Teacher observation:</b> Teacher takes photographs of the completed Minimal Defining List.</p>	<p><b>Self-Reflection:</b></p> <p>The pupils name and recognise shapes by their appearance</p>

	<p>(Level C2: See Manual p.101, 110)</p>	<p>Teacher uses language checklist for vocabulary relating to shapes and sorting: circle, square, curves, straight, sides, different, belong, same, different, set..</p> <p>The pupils can recognise regular and irregular 2-D shapes in their classroom.</p> <p><b>Teacher Questioning:</b> Teacher uses the IF to elicit, support and extend the pupils mathematical thinking</p> <p><b>Teacher designed tests and tasks:</b> Pupils can use a sorting diagram to help classify shapes into logical categories.</p> <p>Pupils refer to a maths dictionary to find the correct names for each of their groups</p> <p><b>Concept Mapping:</b> This allows the pupils to draw on information that they already have and understand about a particular topic and it allows them to incorporate new information. It allows the teacher to see the pupils inside thoughts.</p> <p>The pupils will use their prior knowledge and discover some of the properties of 2-D shapes that makes them unique and lead to the child creating their own Minimal Defining List.</p>	<p>The pupils can describe and justify the way they have classified the 2-D shapes.</p> <p>Pupils refer to a maths dictionary to find the correct names for each of their groups</p> <p>Discuss relationships between and among properties of shapes or classes of shapes.</p> <p>The pupil uses the correct maths language in context to describe their shape and why it belongs in a particular category/ what they have in common.</p> <p>Pupils are able to follow logical arguments using such properties.</p> <p>Pupils use informal, deductive language:</p> <p>“All, some, none, if-then, what if.. This will also work for....This will not work for.. I noticed that...”</p> <p><b>Maths Journal:</b> Pupils record their findings in their Maths Journal.</p> <p>Pupils can record the results of the sorting activities in a Tree diagram and talk about it</p> <p><b>Portfolio</b></p> <p>Pupils annotate photographs of their sorting diagrams and Minimal Defining List</p>
	<p><b>Task</b></p>	<p><b>Assessment Opportunities</b></p>	<p><b>Pupil Voice</b></p>
<p>10.</p>	<p>Exploring Line Symmetry Using Pegboards</p> <p>(Level C6: See Manual p.118 - 123)</p>	<p><b>Teacher observation:</b></p> <p><b>Teacher designed tests and tasks:</b> Pupils use a digital camera and go on a Symmetry Hunt to identify Symmetry in the environment</p>	<p><b>Self-Reflection:</b></p> <p>Children discuss lines of symmetry in the environment“ I know its symmetrical because... I saw a pattern..I noticed that...I know I’m right because..”</p> <p><b>Portfolio:</b></p>

		<p><b>Teacher questioning:</b> Describe your picture. How do you know that it is symmetrical? Where would the lines of symmetry appear?</p>	<p>Pupils record shapes and their corresponding lines of symmetry on various mediums including using drawings, geo boards, dotted paper, peg boards, ect..</p> <p><b>Maths Journal:</b> Pupils record their findings in their Maths Journal.</p>
	<b>Task</b>	<b>Assessment Opportunities</b>	<b>Pupil Voice</b>
11.	<p>Sorting 2-D shapes According to Pupil's own Criteria with Sorting Diagram.</p> <p>(Level A3: See Manual p.40 -45)</p>	<p><b>Teacher observation:</b> Using Language Checklist from Ready Set Go Maths for vocabulary relating to Sorting.</p> <p><b>Teacher questioning:</b> Asking questions such as "Tell me about your objects. Why do these belong together/do not belong together? Are there more/less in the blue set?"</p> <p><b>Teacher Designed Tests and Tasks:</b> Pupils engage in activities such as Shape Hunt (Manual pg: 45) to find specific 2-D Shapes. They might be found as faces on a 3-D shape or as 2-D shapes. The teacher leads a discussion about the differences and similarities between the discovered shapes</p> <p>Pupils will demonstrate their reasoning abilities in games with logic blocks, Guess My Secret (Ready, Set, Go- Maths pg:45)</p>	<p><b>Self-Reflection:</b></p> <p>Pupils discuss why the shapes belong/do not belong in a set:"This shape belongs because... this shape does not belong because... This is the same because... This is different because...I noticed...I know I'm right because..."</p> <p>Pupils will talk about their arrangements and explain their decisions.</p> <p><b>Portfolio</b></p> <p>Pupils annotate photographs of Tree/Carroll/ Venn Diagrams.</p> <p><b>Learning Log</b></p> <p>Pupils record their findings in their learning Log</p>