

Class Six | Learning Journey & Curriculum Map

Class Six | Child Development

The twelfth year of a child's life is a kind of limbo; he is no longer really a child, but he is not yet a teenager, and adulthood is still a long way off. After the challenge of the tenth year, comes the struggle to establish some balance and order, which is more or less achieved during Class 5. Then comes puberty, bringing another onslaught of emotions and physical changes that are difficult to deal with, both for the children themselves and the adults around them. What they have learned from their earlier experience is that the situation needs to be controlled, so, in Class 6, this is their response. But, as with everything at this age, it is somewhat heavy-handed and naïve. As always, this finds its reflection in the curriculum. Think of the Romans marching in uniform stride across the known world, everywhere encountering rebellious tribes with their varied and colourful histories, cultures and traditions, not engaging with them, but offering only two choices: surrender or be crushed. There you have a picture of the situation in the child's soul life at this time. Each one is a Roman emperor trying to maintain control of the realm of his own feelings by laying down the law. The world, other people, himself, everything is categorised and labeled: 'Things I like', 'Things I don't like', 'Things that are cool', 'Things that are rubbish', 'Things I will never do', 'Things I must do', 'Things I am good at', 'Things I am bad at', etc. In true Roman style, once the categories are fixed (and at this point he sees no reason why they would ever change) he compares his list with those of his peers, for reassurance, and adjusts it as necessary. Belonging to the group matters, and there is no room for variation in the group; its judgements are absolute. In this way, he finds a safe place for himself in the world. His question, for the moment, is 'Who are we?', not 'Who am I?' Although this is uncomfortable for us, (from our adult perspective, our children are submitting to peer pressure) it is just as it should be and we have to understand that they will come through it. Once the twelve-year-old has found where he fits, he believes that he has grown up - that he understands how the adult world works and that he will get older, but otherwise life will go on just as it is now. For some, and at times for all, this brings reassuring stability. Confidence comes from knowing what the rules are and abiding by them. But for everyone there is an underlying feeling of disappointment - a feeling of 'Is this really all there is?' At this moment, we take a file of something boring and familiar off the shelf (of course they groan as we do it), blow off the dust and open it up. They get ready to add some dull facts to their collection, resigned to the prospect of spending their remaining school days in this way. But instead we take them into a completely dark room, turn on a torch and they can't see it; how is that possible? They find that they can hear the difference between cold water and hot water; but temperature is something you feel, not

hear! That a small piece of wire can ring like a church bell, as long as the sound doesn't have to travel through the air; so everything we hear is muffled?? We show them that everything they thought they knew is just a signpost to something greater and more fascinating than they could ever have imagined. We start to open up the familiar world so that it fills again with the wonder it held for them when they were very small and everything was new; to plant the seed of a thought in their minds: 'There is no end to what I can discover. I could go on being surprised and delighted by the world for the rest of my life!' All of this is a background to the curriculum in the Middle School - Classes 6, 7 and 8 - but it is this bringing, at every stage, of things to which the children can relate directly out of the experience of their own inner lives that makes Steiner Waldorf education unique and powerful. After the twelfth year, the faculties of judgement and objectivity develop as a counterbalance to the emotional turmoil of adolescence, and we can look with clarity at the physical world. In Class 6, we do this through Physics, Geometry and drawing from observation. We also consider the different ways in which people have dealt with the world, worked with it, changed it and thought about it through History, Geography, Art, Literature, Maths. These examples and experiences model for the children how the world can be interpreted and the many ways in which it is possible to enter into life.

Class Six | Numeracy | Number

Active Learning Intention	Active Teaching Implementation	Active Environments Impact
<ul style="list-style-type: none"> ● Read, write and understand place value to eight figures ● Know square numbers up to $15 \times 15 = 225$ and their square roots ● Estimate results by rounding off numbers ● Calculate confidently all four processes including decimals, using written methods ● Convert percentages to fractions and decimal fractions and vice versa ● Understand percentages and their 	<ul style="list-style-type: none"> ● Revise Teach rounding up using place value chart ● Explain, in context, why rounding numbers can help when working with large numbers ● Model using the strategy of rounding and estimating before calculating, in different contexts, including real life scenarios such as measuring or accounting. ● Review work on fractions and decimals 	<ul style="list-style-type: none"> ● Visual resources such as place value flip chart ● Help pupils strengthen skills by differentiating practice work as appropriate for the students ● Provide visual resources for fraction and decimal work ● During skills lessons, ensure practice time is given to percentages and business maths skills, as well as ongoing number

<p>application to business</p> <ul style="list-style-type: none"> ● Work out simple percentages of a no. using combinations of 1% and 10% ● Develop a working knowledge of business maths: profit, loss, discount, commission, VAT, bank accounts ● Begin to use problems related to ratio and scale ● Begin to use letters in algebraic expressions e.g. area of a square ● Begin to use formula by means of calculating simple interest ● Solve logic puzzles using trial, improvement and existing knowledge 	<p>from Class 5 using regular practice and homework exercises</p> <ul style="list-style-type: none"> ● Introduce percentages in the context of the business or economics main lesson ● Model using letters in formula through the concrete example of Simple Interest ● Create problem solving scenarios involving proportional reasoning ● Provide real-life situations to work with, using transport, banking, comparison of services 	<p>understanding</p> <ul style="list-style-type: none"> ● If possible, set up a class business to create real life opportunities for working with money, decimals, percentages, profit and loss, discount, VAT, bookkeeping and bank accounts ● Encourage group- work simulating real life scenarios, problem solving
---	---	---

Class Six | Numeracy | Space & Measure

Active Learning Intention	Active Teaching Implementation	Active Environments Impact
<ul style="list-style-type: none"> ● Estimate angles in all shapes and knows the names of different angles (right angle, obtuse, acute, reflex) ● Make precise use of compasses and ruler to draw constructions of major geometric figures ● Use a compass accurately to bisect lines and angles ● Understand degrees as rotation or part of a rotation ● Know, understand and use vocabulary for all properties of common shapes ● Draw translations, reflections, rotations ● Read, understand and present information via pictograms: use pie charts, bar charts, linear graphs (foreign currency exchange) ● Make time and speed calculations ● Identify and name further properties of a circle including chord 	<ul style="list-style-type: none"> ● Teach geometrical drawing, in a progressive manner, following on from freehand geometry in Class 5 ● Model how to use a compass correctly ● Teach the children how to use a protractor correctly by modelling it first ● Explore data handling in context - for example using a classroom or school survey to provide the data for the charts and graphs ● Relate time and speed calculations to the children's own experiences wherever possible ● Help and assist pupils to sustain accuracy and beauty in their geometrical constructions ● Revise methods of shading in colour to enhance constructions ● Encourage individual experimentation with the division of the circle, creating personal shading and patterns 	<ul style="list-style-type: none"> ● Ensure that each child has a good quality set of geometrical drawing tools ● Following on from a geometry main lesson block, provide regular opportunities for the children to practice accurate use of the compass, set square, ruler and protractor. ● Provide real life opportunities for meaningful data handling, such as market research for a class business; or profit and loss analysis ● Display a wall of geometry in art and architecture: Roman mosaics, tiling, Islamic geometric repeating patterns in tiling ● Ask pupils to find and display examples of geometry in natural and animal structures

<ul style="list-style-type: none"> ● Measure, construct and name angles ● Provide geometrical proof of sums of angles of triangle; using cut-outs, protractors ● Construct increasingly complex patterns based on the four, six, eight, twelve, sixteen and twenty four divisions of the circle, and the stellar polygons of five, six, eight, ten and more sides. ● Measure perimeter and calculate area of squares, rectangles and triangles ● Develop formulae for area and perimeter by construction and measurement, and apply to a range of problems. ● Solve problems involving the measurement and calculation of lengths and areas, including taking scale into account when working from maps. ● Investigate the metamorphosis of form through the rotations, reflections and symmetry employed in the construction of geometric patterns ● Observe, draw and artistically highlight the geometric forms of astronomical movement ● Draw forms arising from geological 	<ul style="list-style-type: none"> ● Use knowledge from the Botany Main Lesson to explore patterns in nature 	
---	---	--

<p>structures</p> <ul style="list-style-type: none"> ● Investigate, construct and measure angles round a point, angles on a straight line, triangles and polygons. ● Bisect a line and an angle ● Draw tessellation (tiling) with accurate construction of parallel lines 		
--	--	--

Class Six | Numeracy | Curriculum Narrative

In Class 6 we work with the relationship between percentages, fractions and decimals and relate these to charts and graphs. We also look at money - interest, currency exchange, profit and loss and the three uses of money: buying and selling, borrowing and lending, giving and receiving. We look at how money circulates in society and talk about the moral implications of this. In Geometry, we variously practise and learn the basic constructions of right angles, triangles, squares, pentagons and other regular figures, how to bisect angles and lines and how to draw parallel lines. This leads to the relationships between opposite, alternate, adjacent and corresponding angles. We then look at the internal angles in figures, beginning with the internal angles in a triangle, which always add up to 180° , and use this to find the sum of the internal angles of any figure - regular or irregular - arriving finally at a formula: $n = 180(s - 2)$ By drawing a hexagon contained within a circle, we discover what Pi really is, and then use it in circle theorems to calculate the circumference and area of circles. We also touch on other formulae and work out how to express familiar processes in this way, for example, n (the current year) - b (the year I was born) = a (my age).