Building School Readiness with Measurement

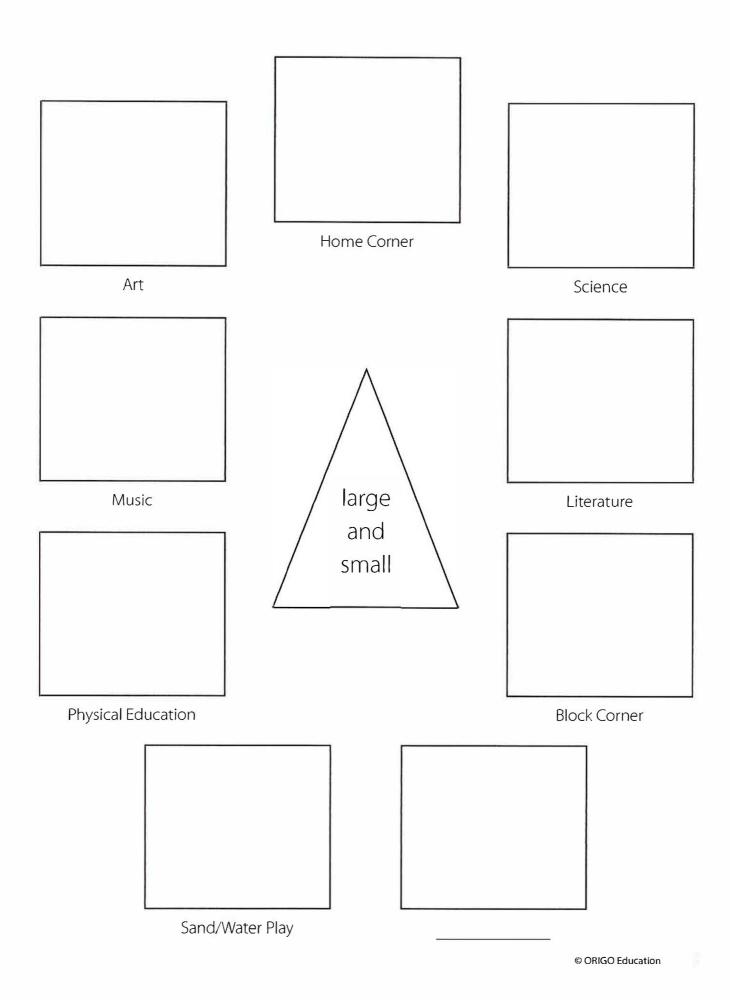
Peter Stowasser Senior Author p_stowasser@origo.com.au Rosemary Irons Mathematics Consultant mathmates@ozemail.com.au



Language for Opposites

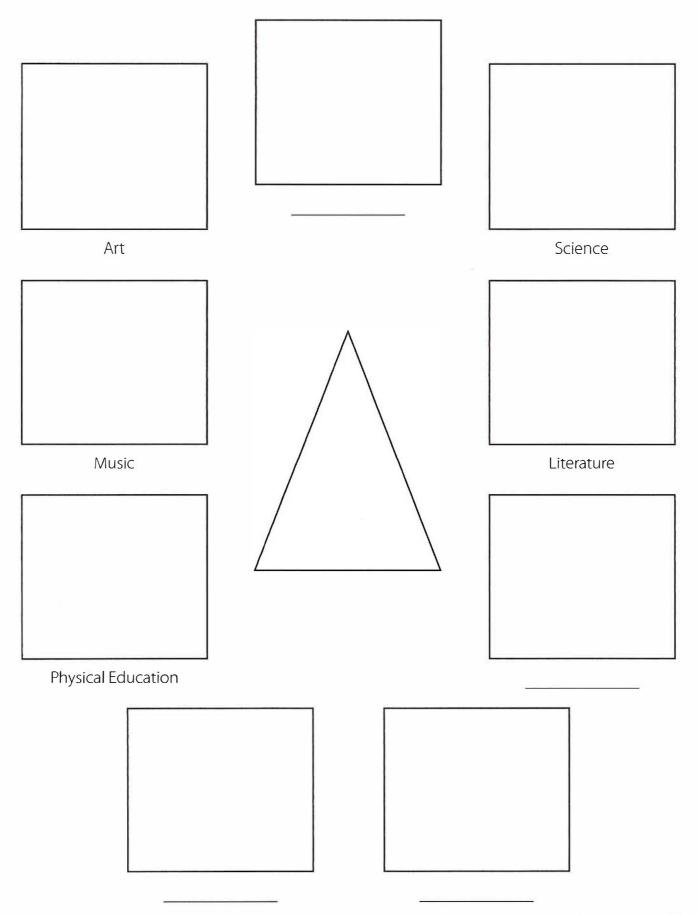
scruffy	
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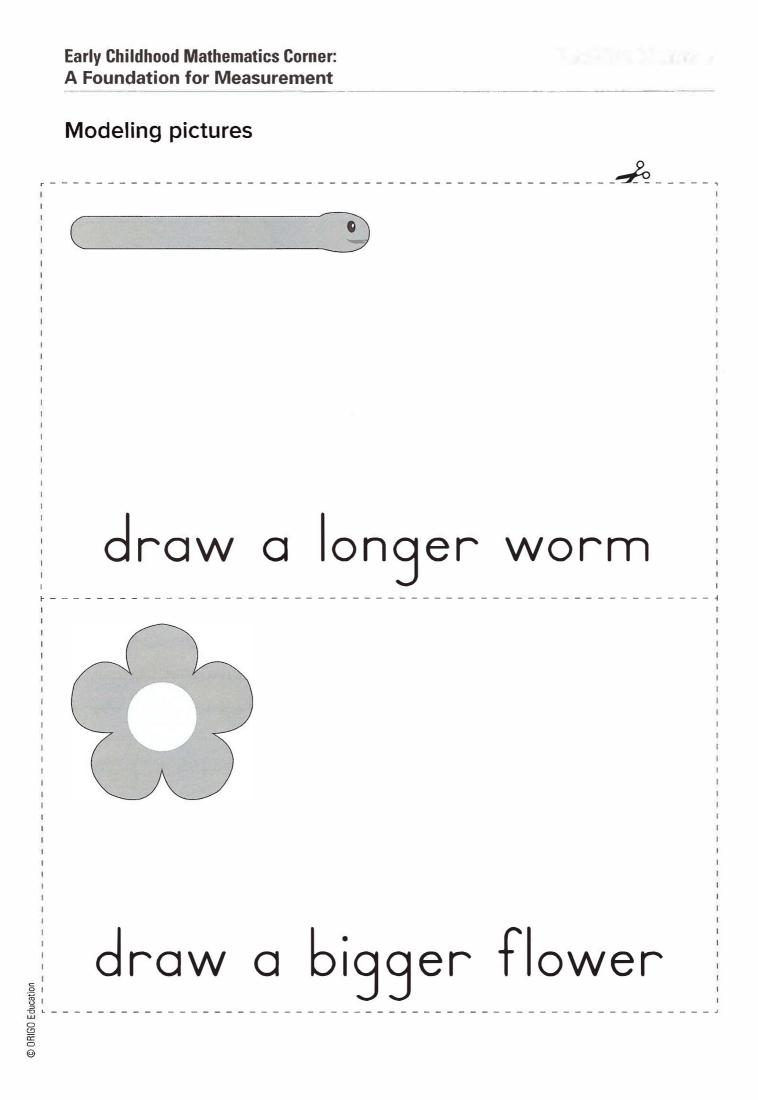
<u> </u>	
in front	
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night	
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big	
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loud	
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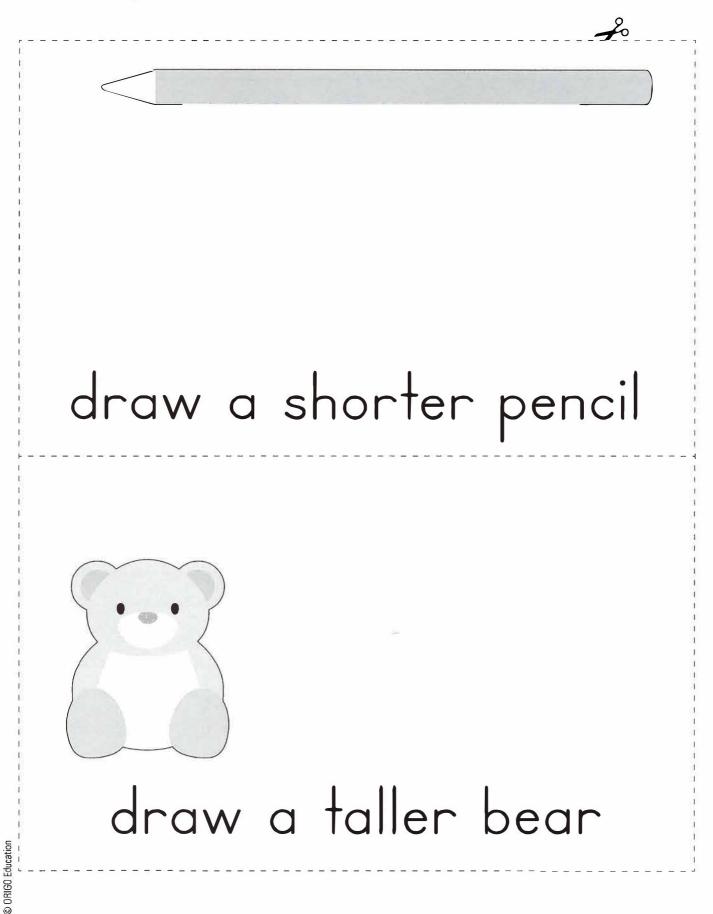
Identifying the Attribute

Торіс	Attributes/Language
Size	
Length	
Height	
Mass	
Capacity	
Volume	
Time	
Width	
Area	
Distance	
Speed	
Temperature	

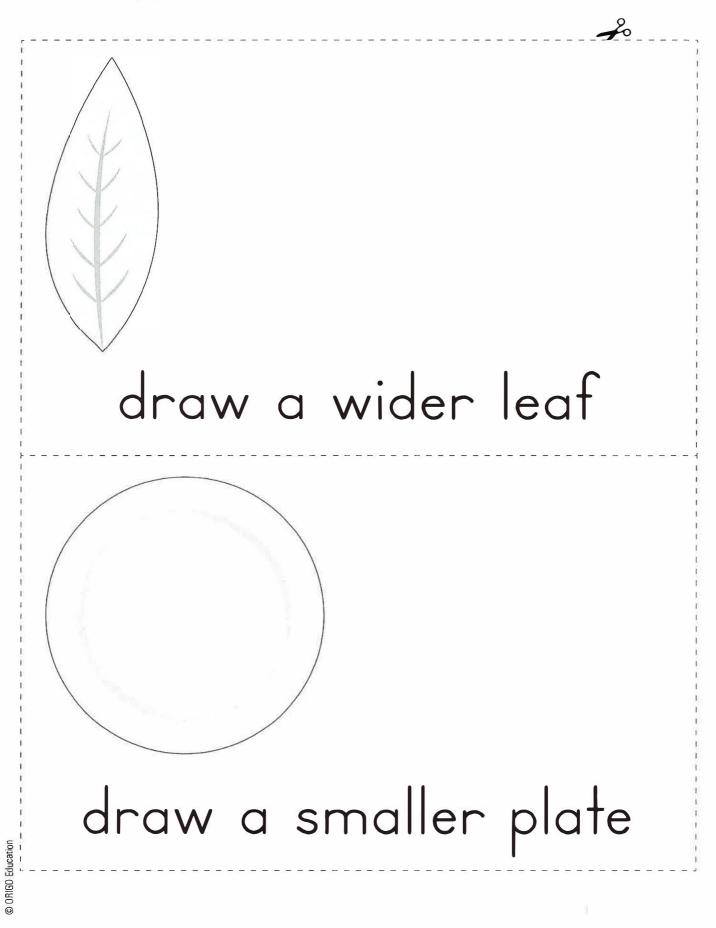




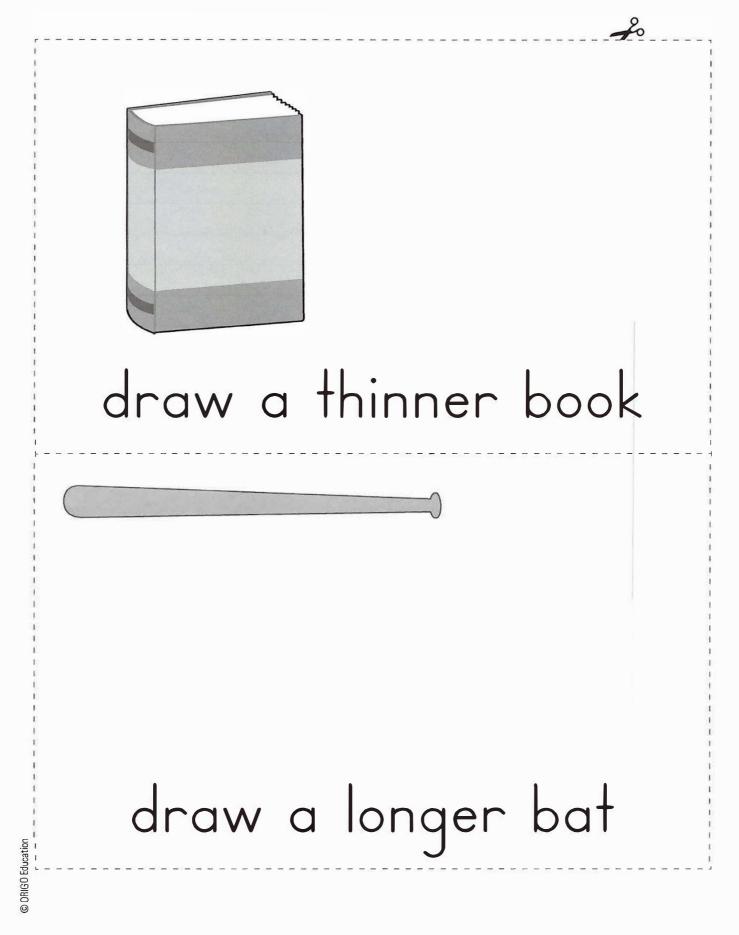
Modeling pictures



Modeling pictures



Modeling pictures



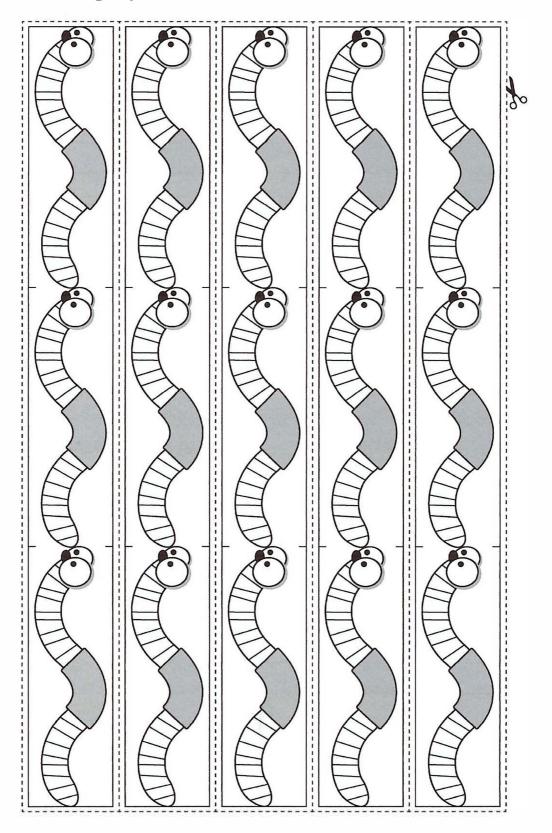
Measurement Language for Early Childhood

	<u>.</u>	Measurement Attribute			
		Length	Capacity/Volume	Mass	Area
Language Stages	Child's Language	long, short tall, short small, big, little wide, narrow skinny, fat thick, thin, deep, shallow, zigzag Distance – a long way, far, close, near, over there, away	empty, full, not full, fill, level, refill, overflows, holds, as much as, less than, more than, holds most, too much, not enough, spill, drip, sprinkle	heavy, light too much, too little, enough, not enough, the same, different, weight, a lot, big, almost, more, less, feels heavy, feels light, heft	size, big, small, shape, space, large, cover
	Material Language (Emphasis on counting units)	How many? Count to find out. ribbons – long and short, pegs, shoelaces, body length, arm spans, rulers, stacked blocks, as long as Distance – paces, foot, lengths Perimeter – boundaries, edges	How many to fill? Count the number. cupfuls, mugs, spoonfuls, scoopful, bucket, egg-cupful, jugs, containers small and large, sieve, funnel, pour cubes, blocks, sand, water	How many cubes balance the toy on the scales? balance, scales, heavy, light, level, doesn't balance, weight, cubes, blocks, fewer, playdough balls, junk objects, pan balance	How many hand prints cover the tabletop? fits, covers, inside the boundary, outside, more, less, area, squares
	Mathematical Language	metre centimetre decimetre millimetre kilometres ruler	litre millilitre cubic centimetre	kilogram, gram, balance, mass, weight, half, kilogram	surface, sides, circle, square, rectangle, triangle, completely, covers, length by width
	Symbol Language	m cm dm mm km	L mL cm ³	kg g	/ × w m2 km ² cm ² ½ (/ × w)

Measurement Language for Early Childhood

		Measurement Attribute		
		Time	Angle In Geometry Strand	Money In Number Strand
Language Stages	Child's Language	order of events in personal and school day, how long to, time, days, weeks, clock, one twelve o'clock, yesterday, today, tomorrow, long time, short time, morning, afternoon, nighttime, age, before, after, next, old, young, slow, fast, early, late	turn, twist, go around, spin, roll, circle around, twirl, left, right, straight and curved lines, forward, backward, reverse	buy, coins, dollars, sell, pocket money, money, cents, spend, bank, change, use credit card, hundred dollars, shop, fare, rich, poor, save
	Material Language (Emphasis on counting units)	How many hops can you make in one minute? How long does it take to eat an ice cream cone? Count minutes. types of clocks, egg timers, stop watches, pendulums, hands of the clock, calendar	Count the steps around one- fourth of the cicle. move the arms apart, turn around, move the geostrips apart, find some angles that match the right angle, amount of turn	Count the money? Match the price (2 dollars) and the money. Add two prices. coins, dollars, cents, price tag, cost, change, buy, sell, costs less, costs, more, credit card
	Mathematical Language	minutes, hours, five to sixty minutes	angle, right angle, less than a right angle, more than a right angle, rotate, revolve, degrees, protractor, compass, square corner	dollars, cents, cost, price tag, money left, change, worth it, value, sell, buy, price, paid, costs, more, same price, cost per, cheaper, dearer, expensive, pay, notes, amount, total, charge, credit card, equal amount of money
	Symbol Language	a.m./p.m. :		\$ c

Worm Measuring Tape



INTERVIEW



Resources

- I ribbon of about 4 inches
- various objects that are shorter and longer than the ribbon strip

Activity

Hand the ribbon to the child and randomly place the objects on the table. Explain to the child
that they will be finding objects and comparing them to the length of the ribbon. Prompt the
child to use appropriate language to describe the objects they pick up. Ask, Can you find
an object that is longer than the ribbon? Can you tell me about the length of the object you
chose? Can you find an object that is shorter than the ribbon? Can you tell me about the length
of the object you chose?

2

Draw a ✓ beside the learning that the child has successfully demonstrated.

	Identified an object that was longer than the ribbon.
	Used the comparison word <i>longer</i> to describe the object. Identified an object that was shorter than the ribbon.
	Used the comparison word <i>shorter</i> to describe the object.
	Comments:
ORIGO S	itepping Stones • Pre-K • Module 2
	Identified an object that was longer than the ribbon.
	Used the comparison word <i>longer</i> to describe the object.
	Identified an object that was shorter than the ribbon.
	Used the comparison word <i>shorter</i> to describe the object.
	Comments: