TREND Hedgehog

Level: Year 4 and year 8 Approach: One to one

Focus: Understanding rotation and angles.

Resources: Garden picture with metal washer in the middle; model hedgehog to fit washer; recording book.

Questions/instructions:

Here is a hedgehog and its garden.

Hand student the hedgehog.

Put the hedgehog in the centre of the garden so it is facing the tree. I want you to move the hedgehog the way I tell you.

Write each student response on the recording sheet. After every turn, ask student to turn the hedgehog to face the tree again. % responses

	2001 ('97)	2001 ('97)
1. First turn the hedgehog clockwise a	year 4	year 8
quarter-turn. What is it facing?		
flowers	63 (56)	92 (89)

2. Now turn the hedgehog clockwise a onethird turn. What is it facing?

cat 18 (13) 40 (40)

3. Now turn the hedgehog anti-clockwise a half-turn. What is it facing?

> ladybird 65 (58) 85 (91) turned anti-clockwise 77 (74) 94 (95)

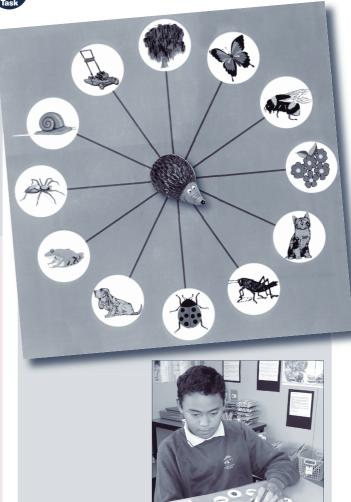
4. Now turn the hedgehog anti-clockwise a three-quarters turn. What is it facing?

flowers 39 (38) 63 (77)

YEAR 8		
5. Now turn the hedgehog 90° to the left. What is it facing?		
spider	•	60 (67)
6. Now turn the hedgehog 360° to your left. What is it facing?		
tree	•	74 (84)
turned left	•	91 (93)
7. Turn the hedgehog 30° to the right. What is it facing?		
butterfly	•	53 (58)

spider	
9. What directions could you give me	
if I wanted to turn the hedgehog to	
face the frog?	
PROMPT: Could you be more specific	?
appropriate directions	

8. Turn the hedgehog 270° to the right. What is it facing?



YEAR 4	% responses	
10.Now turn the hedgehog 1/12 to the right. What is it facing?	2001 ('97) year 4	
butterfly	17 (16)	•
11. Now turn the hedgehog three-quarters around to the left. What is it facing?		
flowers	37 (41)	•
12. What directions could you give me if I wanted to turn the hedgehog to face the frog?		
appropriate directions	48 (45)	•

Commentary

38 (44)

35 (39)

Students were much more successful with 1/4 and 1/2 turns than others such as 1/3, 3/4, and 1/12. Year 4 students did equally well or slightly better in 2001 than in 1997, but year 8 students did a little worse in 2001 than in 1997.