

**Grade 8 Mathematics (Barr)**  
**From Patterning to Algebra**

Date: \_\_\_\_\_  
Name: \_\_\_\_\_

**Curriculum expectations:**

- Mathematical Process Expectations 8m1 develop, select, apply, and compare a variety of problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen mathematical understanding
- Measurement Relationships 8m36 solve problems involving the estimation and calculation of the circumference and the area of a circle

**Resource:** Watch the “Round Table Problem” video as many times as you want.

**Problem:** What is the surface area of this table?

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**Level and Success Criteria:**

- 1  Student states hypothesis ("I think ... because ...")
- 1  Student completes "Entry" phase of problem ("I know", "I want")
- 2  Student demonstrates understanding using an appropriate visual representation ("Introduce")
- 2  Student attacks the problem ("Stuck" and "Aha!")
- 3  Student reviews the problem ("Check": This answer is reasonable because ...; "Reflect": The hardest part was ...)
- 3  Student concludes whether hypothesis was accurate or not ("My hypothesis was (in)accurate... I learned that ...")
- 3  Student completes the problem independently
- 4  Student proposes an extension to this problem
- 4  Student completes an extension to this problem

**Overall Grade**

Level	Range	Level	Range	Level	Range	Level	Range	Level	Range
4+	95 - 100 %	3+	77 - 79 %	2+	67 - 69 %	1+	57 - 59 %		
4	87 - 94 %	3	73 - 76 %	2	63 - 66 %	1	53 - 56 %	R	0 - 49%
4-	80 - 86 %	3-	70 - 72 %	2-	60 - 62 %	1-	50 - 52 %		