

## ABSS Math Unit Planning Template

## Introduction:

Grade/Course: 9_12   Discrete Mathematics		Suggested Unit Pacing (# of days): 6 days		
Unit Number and Title: Unit 9 - Trees		Mathematical Practices		
		P1	Make sense of problems and persevere in solving them.	
Conceptual Overview		P2	Reason abstractly and quantitatively.	
		P3	Construct viable arguments and critique the reasoning of others.	
Essential Understandings		P4	Model with mathematics.	
		P5	Use appropriate tools strategically.	
SCS		P6	Attend to precision.	
		P7	Look for and make use of structure.	
The learner will use matrices and graphs to model relationships and solve problems.		P8	Look for and express regularity in repeated reasoning.	
		SCS.9_12.MA.1.02	Use graph theory to model relationships and solve problems.	
Learning Targets	<ul style="list-style-type: none"> <li>Use appropriate vocabulary to identify the parts of trees</li> <li>Use the calculations for finding the number of edges, the maximum leaves and number of vertices using the appropriate equation</li> <li>(HONORS) Create an expression tree given an expression</li> <li>Use preorder traversal to get the Polish Notation from an expression tree</li> <li>User postorder traversal to get the Reverse Notation from an expression tree</li> <li>Use Breadth-First and Depth-First search to create the spanning tree</li> <li>Use Kruskal's algorithm to find a minimum spanning tree</li> <li>Use Prim's algorithm to find a minimum spanning tree.</li> </ul>			
Essential Terminology				
Literacy Integration	Literacy Standards	Level	Standard	Standard Name
	Literature Connections			
Technology Integration	Technology Standards	Level	Standard	Standard Name
	Websites			
Assessment	Formative			
	Performance Tasks			
	Summative			
Resources				
Learning Plan	Instructional Sequence	1- Intro trees 2- Expression trees/traversals 3- Spanning trees 4- Minimum spanning trees 5- Review 6- Test		
Differentiation	Remediation			
	Enrichment			