

Class #13	STORYCODE Aim: How is the coded plot of a story related to the way computers function?	CCLS STANDARDS:	Reading-Writing-Math Cont-Math Prac-Sci/Tech-CSTA	
Do Now	(Groups) Use one of our 3 methods to show all the possible versions of "LorT?"		1, 3, 5, 6, S-CP-2, 1-7, 5.3.B:8,9	
HW share	Anyone to read? Let teacher read? ID decision points of each version.		2,3,4,9,10, WHST-1a-c,e, 2a-e, 3, 4, 9	
Share Do Now / Activity	Possible versions of "LorT?": It comes down to "decision points."		1, 3, 5, 6, S-CP-2, 2, 5.3.A:CT-9,11, B:CT-7-9	
	1) 8 possibilities: how do we know that?		S-CP-2, 3	
	A] Brute Force (--> Code Box) ~ list on board ~	i. ID decision points chronologically; show horizontally: TK P L ii. Record decisions of truth or trust as T, falsehood or mistrust as F. iii. Record each 3 symbol code in its B2 position, lowest to highest. iv. Names for each version, along with death or marriage. v. How can you tell we're done? (Can't. We need another method.)	3, N-Q1, 4, RST-1,3-5, 5.3.A:CT-3,8, B:CT-5 3, 4, 5.3.A:CT-3,8, B:CT-7	
	B] Tree Diagram: 1 (TK) dec. pt --> 2 (P) dec. pts --> 4(L) dec. pts --> 8 endings		S-CP-1,6, N-VM-6, 4, B:CT-7	
	C] Function: permutations and exponential growth		1-3,5,6,8, S-CP-5, 1, RST-2-5, 5.3.A:CT-8, B:CT-5-7	
	i. How does the number of T/F choices affect the number of possible versions?		2,5, 5.3.A:CPP-3, B:CT-4	
	ii. Permutation Function ~ on board:	a. versions = (# of options per choice) raised to (# of choices) power b. $f(x) = 2$ raised to (x) power	S: CP-6, IC-3, 2, 4-8, RST-8, 5.3.A:CT-3,8, B:CT-5,6 A-SSE-1,F-LE-5,4,RST-8,5.3.A:CT-1,8,CPP:12,B:CT-4	
	2) What if the lady and the tiger could secretly switch places on their own? Show the versions for 4 decision points.		S-CP-9, 2-5,7, A: APR-1, REI-1,2, CED-2, F: IF-1, BF-1a, LE-1a, 2-8, RST-8 A: CED-1,2, APR-4, REI-4b, S: CP-9, MD-2, F: IF-2, BF-1c, 2-8, 5.3.A:CT-8	
Mini- Lesson 1	What do the decision points of "LorT?" have to do with computers?		1,8, A-CED-4, F-LE-5, 1,4-8, 5.3.A:CT-8	
	1) Computers work with information in the form of 1s and 0s.	A] 1s and 0s can mean almost anything. B] Meanings are determined by humans.	RST-9, 5.3.A:CT-9,11, B:CT-7-9	
	2) Using 1s & 0s requires a "protocol" = method/order of doing something		5.3.A:CT-3,8	
	A] Define protocol for "LorT?" (Code Box)	i. Symbol: T = trust, F = falseness ii. Position: TK --> P --> L		
	B] "binary" = system with only 2 parts (T or F in our case) C] "binary protocol"= method/order of doing something w/only 2 elements			
3) Switch the Code Box to 1s and 0s.		N-VM-6		
A] meanings of our symbols: T = True = 1, F = False = 0	B] meanings of our positions: 1st # = TK, 2nd = P, 3rd = L		5.3.A:CT-3,5,8, B:CT-5	
4) Do we need to record the ending with another digit?			A: CED-4, SSE-1, B:CT-4,5	
A] No. We can always figure the ending out from the 1st 3 digits.			5.3.A:CT-9, CPP-12	
B] Can you see any patterns for the endings? Single 0 --> death			A-SSE-1, 5.3.A:CT-8	
5) TK-P-L Code Box = a binary protocol			5.3.A:CT-9 B:CT-4,5	
Time? Mini- Lesson 2	ASCII, another Binary Protocol:		5.3.A:CT-11, B:CT-7,9	
	1) What happens inside a computer when you press a key while typing?			
	2) The computer codes that letter as 1s & 0s then shows it on the screen.			5.3.A:CT-5
	3) Only the computer user sees this info. as anything other than 1s & 0s.			
	4) Hand out ASCII chart.	A] = American Standard Code for Information Interchange B] = a binary protocol for the computer to understand the English alphabet C] 1 set of codes for lower case letters, 1 set for upper case letters		B:CT-6 5.3.A:CT-5
5) Does anyone know a simpler alphabetic binary protocol? Morse Code			5.3.B:CT-4 5.3.A:CT-5, B:CT-4,6	
HW	Write your name in ASCII.		5.3.B:CT-7	