	Name	Date	Block
--	------	------	-------

UTeach CSP

Unit 1: Computational Thinking

Building Blocks: Instructions

INSTRUCTIONS

Working in groups of 4, each student should assume one of the roles listed below. Each group will be given a construction site (grid with directions and "X", "A", and "B" spaces marked), a bag of building blocks, and a set of criteria describing what they are to build. Each group should write/type a list of detailed instructions that the Supervisor can read off to the Supplier, Worker, and Inspector so that the required set of towers is properly constructed.

ROLES

Supervisor: This is the "construction foreman" whose job it is to follow the steps in the plan exactly, ask "Yes/No" questions of the *Inspector*, make decisions when appropriate, and tell the *Worker* and **Supplier** what to do.

- Can only read the instructions exactly as they are written.
- Cannot say anything else.
- Cannot see the blocks, site, or other crewmembers while construction is in progress.
- Can instruct him/herself to make notes, count, or remember things about the progress that has been made.

Supplier: This individual is responsible for supplying and disposing of the raw materials (i.e. blocks) for construction.

- When instructed by the Supervisor, can randomly remove a single block from the supply bag and place it on the "Loading Zone" (X).
- When instructed by the Supervisor, can remove a single block from the "Loading Zone" (X) and randomly place it back into the supply bag.

Worker: This individual is solely responsible for manipulating, moving, and placing the construction materials into their designated locations.

- Can only touch 1 block at a time.
- Can only manipulate blocks that are on the construction site (i.e. the 5x5 grid).
- Must follow the Supervisor's instructions exactly.
- Knows about the grid (direction, distance, and marked locations A, B, and X).
- May NOT use any personal judgment in selecting, manipulating, or placing blocks. The Supervisor's instructions should be clear enough.

Inspector: This is the "answer man" of the construction team who is responsible for giving the **Supervisor** essential feedback about materials and the status of construction.

- When asked a question by the Supervisor, can only answer "YES" or "NO" about the block(s) in one or both of the 2 "Inspection Areas" (A, B).
- Cannot answer questions about anything not in one of the 2 "Inspection Areas" (A, B).
- May not communicate anything else.
- If at any point, a question cannot be answered strictly "YES" or "NO", then the question is considered faulty. Stop the construction process and go back to the drawing board immediately.

ADVANCED RESTRICTIONS

- No more than 1 block may be placed on any of the "Inspection Areas" (A, B) or the "Loading Zone" (X).
- · Blocks cannot pass "through" each other. They must move over or around any blocks or towers in their way.

BUILDING BLOCKS: TEAM WORKSHEET

TEAM MEMBERS	5					
Supervisor:					<u> </u>	
Supplier:						
Worker:						
Inspector:					 _	
PROBLEM TO BE						
Record your Bluepri	nt and Criteria inform	nation for fu	ture refere	ence.		
Blueprint:						
		Α		В		
			X			
Criteria #:						
Criteria Description	1					

OBSERVATIONS, NOTES, and IDEAS

Use the space below to make general notes or comments about your task and/or solution. Use a computer or another sheet of paper to write out your complete, detailed solution.