Name: _____ Block:_____

201 Bike Shelter!!!

Your task is to design a bicycle shelter for the bike racks out by the tennis courts on Tiger drive.

Day 1	**Day 2**	**Day 3**	**Day 4**
Questions 1 – 3: Research and design your bicycle shelter	Questions 4: Build prototype	Question 5: Design Review	Iterate through multiple prototypes

1. Research bicycle shelters online. What are they generally made out of? List two websites that helped you think about materials and the process involved.

2. You will be building multiple prototypes of your bicycle shelter. Start brainstorming how you will construct your first prototype.
    a. Materials?

    b. Tools?

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3. Re-list the materials you will need, and draw a ***detailed*** sketch of you first prototype.

4. Build a prototype with materials from the shop (e.g., cardboard, paper, items from the prototyping bin, tape, hot glue, etc.).

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5. On Day three of the project we will be doing a design review of each groups ideas. Your group will be presenting to the class in order to get feedback. Put important feedback below.

Nam

mpletion/Skill Mastery			
ilt a complete, working design that is ready implementation by the assigned deadline. s a finished product and represents the ginal vision.	3 At the project due date the model works as a proof-of-concept. Functions correctly based on the scientific principles studied in the Scientific Inquiry, but is not a finished product.	2 At the project due date the model physically represents a final version but does not work, or, shows most progress toward working but is incomplete.	1 At the project due date the model does not function as intended and is not near completion
gineering process			
ilt and tested a prototype based on ginal design idea, and modified it based my results so that it functions as intended. vice actually works as expected/intended.	3 I used the information I found to come up with a design, and I built something that sort of works. I tested and modified my design to get it to work better.	2 I tried to build something based on a design I found, but it didn't work.	1 I didn't really build anything - I just copied a design I found and didn't actually even try to build it.
iciency/time usage			
ed class time well. Spent every class riod building/designing/engineering your ld. No time wasted.	3 Most time used efficiently but maybe didn't have materials ready to begin, or missed classes/opportunities to engage in build.	2 Missed classes, didn't have materials ready for building promptly, or had materials ready but didn't engage in building efficiently	1 Dawdled, wasted time, delayed, an made little progress
fort/work ethic			
ependently researched, learned about the ue, devised and attempted to implement a ution/new idea/innovative twist on an sting product with a clear, viable purpose	3 researched, learned about the issue. Solution is kind of a new idea but draws heavily from existing projects/products. Could be more novel. Doesn't have the clearest purpose, usefulness or viability	2 drew heavily from existing ideas, didn't alter or innovate in any major way. Build quality is good but purpose/intent/viability isn't clear.	1 Dawdled, wasted time, delayed, threw hands up and asked to be told what to do
mmunication			
arly communicated all features of the sign through labeled blueprint/sketch, werpoint presentation, or product monstration detailed enough for another rson to recreate the design	3 Most, but not all, design features were communicated well. Someone else could build it with some assistance	2 Blueprint/sketch is has some labels and measurements, but is difficult to interpret and would be difficult to build from	1 Even when prompted, student would not communicate design features, and it would be very difficult/impossible for someone else to recreate the design.