| Name: | Date: | Hours |
|------------|-------|-------|
| Traction . | Date. | Hour: |

A Phone Case for Marcus

Instructions: Your mock cell phone case **must have ALL** the characteristics listed in the "Your Cell Phone Case Must" table below. Your design will not be eligible for testing unless your case meets all of the following constraints:

Constraints - Your Cell Phone Case Must:

- be smaller than 4" x 7" x 1"
- be made of repurposed materials.
- remain intact, without repairs, for both tests.

The table below is a scoring rubric. The score represents how well your cell phone case meets the criteria Marcus has given you.

| Criteria - Your cell phone case should: | Rubric | Score |
|---|---|----------|
| Protect the mock cell phone. | Damage to the cell phone is observed after one test. [Damage - cracks, chips, broken pieces] | 1 point |
| | Damage to the cell phone is observed after both tests. [Damage - cracks, chips, broken pieces] | 2 points |
| | No damage to the cell phone is observed after both tests. [Damage - cracks, chips, broken pieces] | 3 points |
| | Materials cost more than \$5. | 1 point |
| Be inexpensive. | Materials cost less than \$5. | 2 points |
| | Materials are free (cost is \$0). | 3 points |
| | Needs repair after 3 uses. [Use - open/close case and/or remove/insert phone] | 1 point |
| Last a while (i.e. be robust). | Needs repair after 10 uses. [Use - open/close case and/or remove/insert phone] | 2 points |
| | Does not need repair after 10 uses. [Use - open/close case and/or remove/insert phone] | 3 points |
| Allow the cell phone to be easily accessed. | Phone can be removed with noticeable effort. [Noticeable effort - more than 2 seconds and/or more than 2 steps] | 1 point |
| | Phone can be removed with minimal effort. [Minimal effort - less than 2 seconds and/or less than 2 steps] | 2 points |
| | Phone can be used without being removed from the case. | 3 points |

Complete a detailed drawing of your cell phone case design with materials labeled. Use your ideas from the crushing test, and Crash test models. Include labels of all of the components of your design. Make your drawing artistic and accurate. Follow the criteria and construints that are on the back!