

Name: _____ Date: _____ Class: _____

Spool Racer Design Worksheet

| Spool Racer Initial Design | | | | | |
|---|-------------|--------|------|-----------|--------|
| Criterion: | | | | | |
| Material | rubber band | washer | tape | toothpick | pencil |
| Type | | | | | |
| Quantity used | | | | | |
| In the space below, make a concise sketch and notes about your spool racer. | | | | | |
| | | | | | |

Once you are done, build a spool racer by strictly following your design above.

Test your spool racer over a flat area. Keep in mind that you want to make your spool racer:

- Run as far as possible
- Run in a straight line as much as possible
- Use as few materials as possible (why?)

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After testing, revise your design. Feel free to test and revise for a few times. Finalize your best design and record it in the box below:

| Spool Racer Final Design | | | | | |
|---|-------------|--------|------|-----------|--------|
| Material | rubber band | washer | tape | toothpick | pencil |
| Type | | | | | |
| Quantity used | | | | | |
| In the space below, make a concise sketch and notes about your spool racer. | | | | | |
| | | | | | |

Compare your final design with your initial design and circle (or describe) the changes you made.

How did your changes improve your spool racer so that it now meets all the design criteria? Explain.