

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Class: \_\_\_\_\_

## Breakthrough Starshot Project Sheet

In 2016 Yuri Milner announced plans to send probes to Alpha Centauri, the nearest star to our sun. The probes would be released in Earth orbit and then pushed by lasers firing from the ground. They plan to get the probes to a speed of 15- 20% the speed of light.

Given your knowledge of classical physics and the quantum theory of light, some questions probably occur to you.

- What wavelength laser should be used?
- What power can the laser reasonably have?
- Where is best site for the laser?
- What choices about the probe will make it easier to attain 20% light speed?

There are a host of other considerations, as well, and you should feel free to consider questions not on the list.

Avoid simply looking up at answers online at first. Speculate. Reason from what you know. Let yourself be clever before you see what someone on the Internet thinks. Then go online.

You will be asked later to present your ideas to the class.