

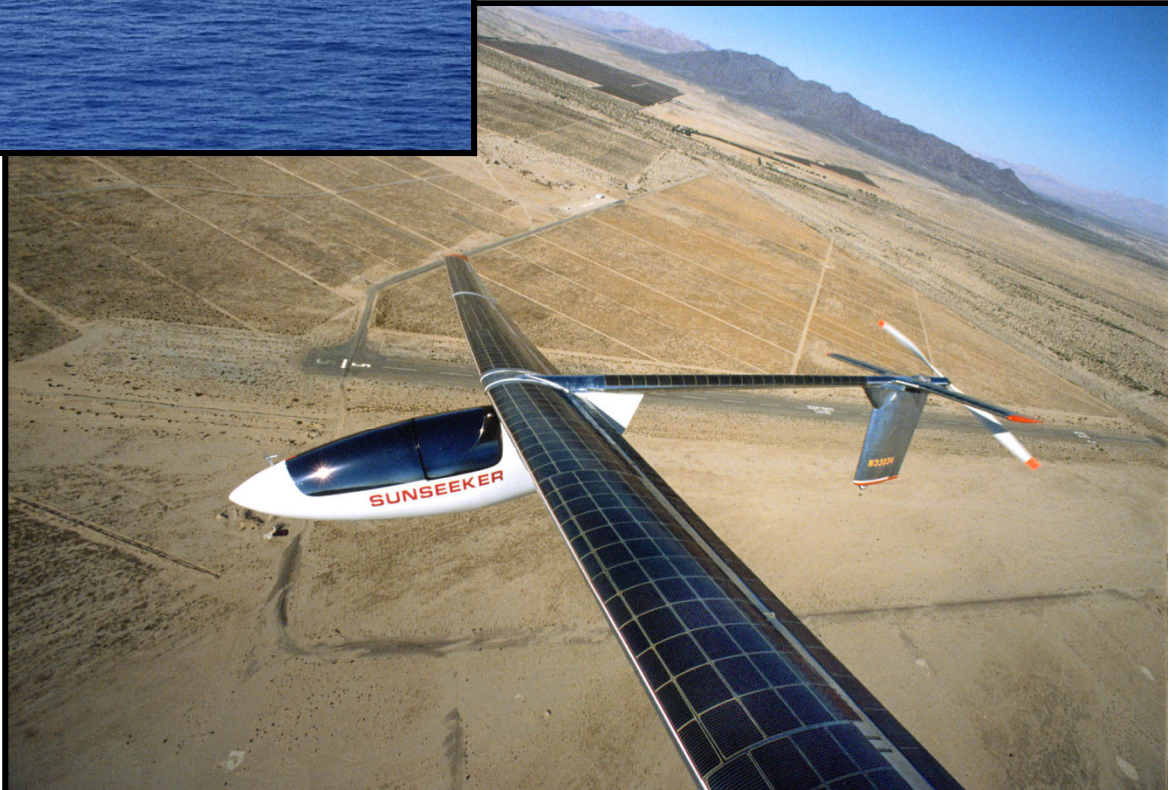


Solar Powered Cars!



Solar Powered Race Cars!

Solar Powered Planes?



Challenge!

How fast of a solar powered car can you build?



How fast can you make your car go?

$$\frac{\textit{Force}}{\textit{mass}} = \textit{acceleration}$$

How quickly can your car accelerate?

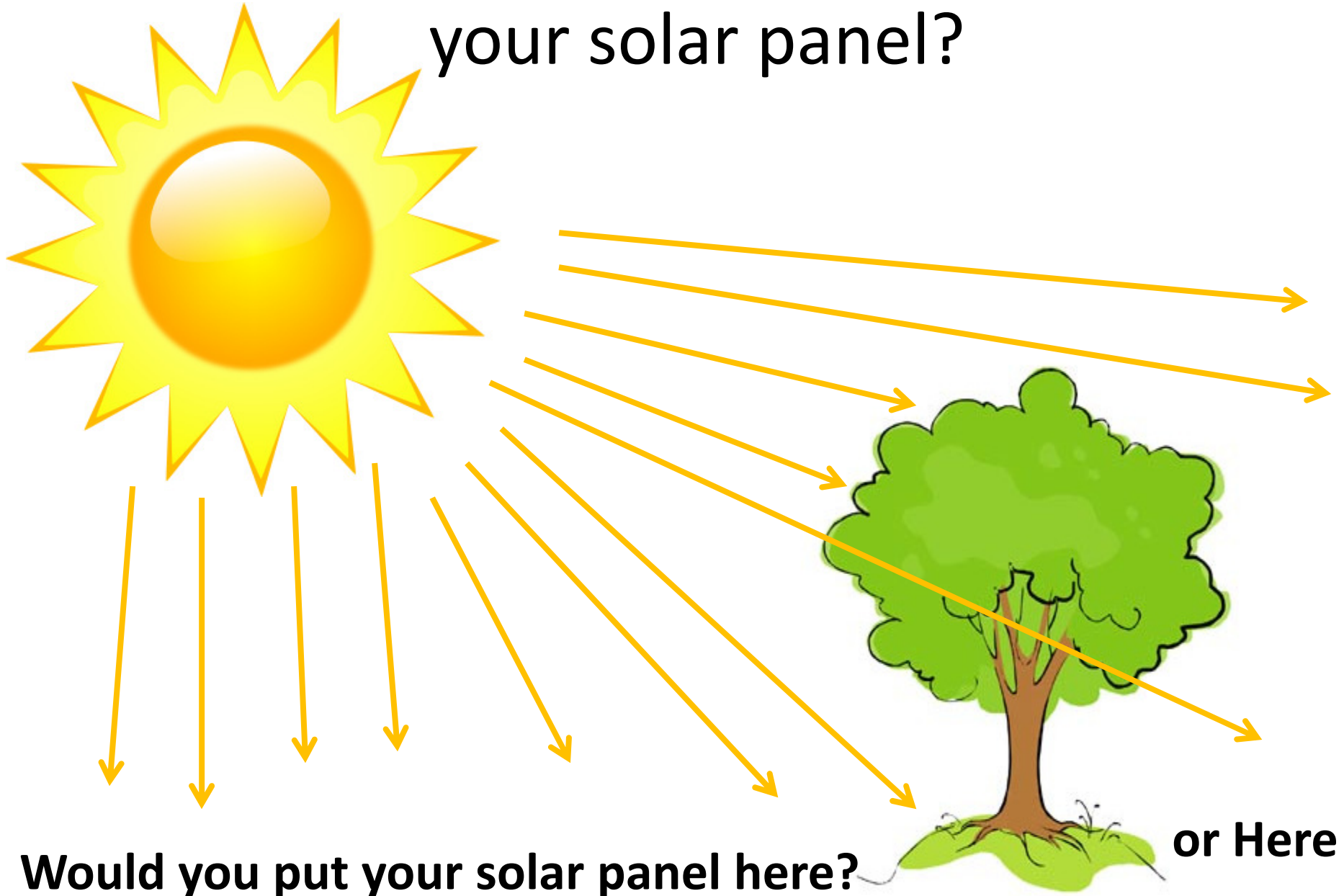
Force: Sun → Solar Panel → Motor

Lots of Sunlight → Larger Force → Faster Car

Mass: How heavy is your car?

Lighter Car → Faster Car

How much power can you get from your solar panel?



Would you put your solar panel here?

or Here

What Slows Your Car Down?

Resistance!

Two Main Types...

Air Resistance & Rolling

Air Resistance

Is it easier to:

“CUT” through the air

or

“PUSH” through the air?

Rolling Resistance

If you spin your bike tire how long does it take for it to come to a stop?



Materials

- 1 Solar Cell
- 1 Electric Motor
- Balsa Wood
- CardBoard
- Wheels, Gears and Axels
- Snippers, Files, Glue Gun