

Extended response PLAN

Out of 16 $\therefore 16 \div 2 - 2 = 6$ points of information



Properties (identify and describe)

• projected area (cross-sectional area)

- larger projected area experience more force

1

- because projectile is pushing more air

2

\therefore more air pushed back.

• surface texture

- rougher surface textures experience more force

3

- because air gets caught more around projectile

4

\therefore more push from air.

Time to max height (explain)

• air resistance slows projectile

- reduces magnitude of vertical velocity

5

\therefore increased downward acceleration while moving upwards

- projectile reaches zero vertical velocity sooner

6

\therefore reached max height sooner