**Factors that Affect Speed**

**Which of these forces always act in the opposite direction to movement?**

Air resistance Upthrust Normal contact force Weight

**Which of these forces always act in the opposite direction to movement?**

Tension Electrostatic Water resistance Weight

**Which of the states of matter does drag act in?**

Solid Liquid Gas

**There is no air in space. We call it a vacuum. Is there drag in space?**

Yes No

**Drag**

When the cyclist crouches down, they have a \_\_\_\_\_\_\_\_\_\_\_\_ area.

This means the cyclist is more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

This will \_\_\_\_\_\_\_\_\_\_\_the air resistance and the cyclist can travel \_\_\_\_\_\_\_\_\_\_\_\_\_.

The front of the plane has a very \_\_\_\_\_\_\_\_\_\_\_\_ area. This means the plane is more \_\_\_\_\_\_\_\_\_\_\_\_\_\_. This will \_\_\_\_\_\_\_\_\_\_\_\_ the air resistance and the plane can travel \_\_\_\_\_\_\_\_\_\_\_.

**Friction**

**Which of these forces always act in the opposite direction to movement?**

Friction Weight Upthrust Normal contact force

Ice is \_\_\_\_\_\_\_\_\_ so the friction will be small

**Why are slides smooth?**

Do we want friction to be high or low?

How does the smoothness of the slide effect the friction?

**Why is the surface of the treadmill rough?**

Do we want friction to be high or low?

How does the roughness of the surface affect the friction?