Streamlining
SPH4C

The frictional forces that act on an object's motion through a fluid are called _____.

To reduce drag, a technique called _____ is used.

Streamlining is the process of _____ by altering the design (shape and surface features) of an object that moves rapidly relative to a fluid.

Streamlined flow is the same as _____ flow.

The turbulent _____ behind the non-streamlined object is a _____ region, _____.

Small drag in streamlined position

Large drag in unstreamlined position

Streamlining is found in nature in _____ that move quickly though water or the air.

Scientists study this streamlining and try to _____ it in technology.

Models are tested in computer simulations and in wind tunnel and water tank tests.

Scientists communicate the amount of drag something has with a number referred to as the _____ (_____).

The _____ the drag coefficient the _____ there is.

E.g.: A highly streamlined airplane wing is around C_d = _____ while an open parachute designed for maximum drag is around C_d = _____.

In the 1930's, when gas was inexpensive, most cars had a drag coefficient of C_d = _____; today most cars have a coefficient of about C_d = _____.