Eggonaut Third Quarter Project

DESCRIPTION:

Students will construct a device that will slow the decent of an egg and safely transport the egg from a predetermined height to the floor.

RULES FOR CONSTRUCTION:

Students will design and build the device prior to the competition. Nothing may be attached to the egg other than the tape or string used to secure the egg from falling out of the device. No shock absorption devices, protective materials, or cushioning materials may be used to protect the egg during the fall of the device. Only the helicopter blade/parachute device may be used to modify the effect of free fall. No energy producing mechanisms of any type can be used to propel the helicopter or slow the drop of the device. Only the effect of wind resistance on the device may slow the fall of the egg. The entire device must fit into a 50 cm x 50 cm x 50 cm cube. If using a parachute the diameter of the chute can be no greater than 75 cm. The device needs to fit into your locker. When released the egg must be the lowest part of the device. Your classroom teacher will provide the egg for grading. The egg will be placed in a zippered sandwich bag which will need to be attached to your device.

GRADING:

The drop height will be between 2-4 meters. Each device will be timed from the time it leaves the students hand until the time it touches the floor. After the drop the student is responsible for extracting the egg from the device and handing it to the teacher for inspection.

Time Aloft 6 points		Condition of Egg 4 points	
6	Greater than 2 seconds	4	Perfect
4	1.5-2 seconds	3	Crack
3	1-1.5 seconds	2	Destroyed
1	1 second or less