



Assessment Date: ____/____/____ Student: _____ Examiner: _____
Words Read Correctly (WRC): _____ Errors: _____ Notes: _____

Cartesian Diver Procedure

Mr J

What You Do:	3
Start by forming a hypothesis on how you can get the packet to sink in the bottle and why that method will work.	19 26
Fill up the plastic bottle with water, leaving a few inches of space at the top.	42
Before placing a packet in the bottle, test out your packets to find one with an ideal amount of air inside. Fill the drinking cup about 3/4 full with water and place a few packets inside. Some may sink to the bottom, while others float at different levels. Look for one that just barely floats above the water line. You may have to try several packets before you find one that works.	58 73 88 102 114
Fold the chosen soy sauce packet and insert it into the bottle. Fill the bottle with water all the way to the top and screw the cap on hard and tight.	129 145
Watch as you squeeze the sides of the bottle. (Adult hands can create more pressure than younger hands.) See the packet sink to the bottom! Let go of the bottle and watch the packet rise back to the top.	159 174 184
Discuss what happened to the soy sauce packet. The contraption you made is called a Cartesian diver. The sauce packet is the "diver". It has a small air bubble inside it that causes it to float in water. When you squeeze the bottle, however, pressure inside the bottle increases, compressing the air bubble inside the packet and causing the packet to sink (see below for a more detailed explanation).	197 212 227 237 252 253

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