Convection Currents **Name:** _____

Aim: To observe convection currents in air and in water.

Equipment: Bunsen burner, heat proof mat, small plastic freezer bag, scrap paper, hot plate, spiral snake template, sewing pin, 500 mL beaker, small amount of noodles

PART A: Convection Currents in Air

Hold a small freezer bag at a safe distance over a Bunsen burner flame as shown in the photo. Wait until the air in the bag is warm and let go. Try attaching small pieces of rolled up paper to the rim of the bag to help it stay upright.

Question:

Describe what happened and why. _____

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Why is ceiling insulation really important?

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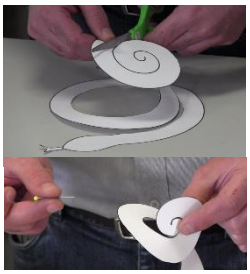
Part B: More Convection Current in Air.

Cut out the spiral snake template your teacher has for you. Poke a sewing pin (the type that has a round head) through the middle of the end of the tail. Hold it above a hot hot plate. The convection current in the air will be revealed!



SAFETY WARNING: A hot hot plate looks the same as a cold hot plate, so please be careful!

Describe what happened and why.

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Competition:

Make your own spiral cut out and experiment to find the fastest spinning spiral. Is a long spiral better than a short spiral? Is a fatter spiral better than a thinner spiral? What combination works best?

After experimenting, what did you find? _____

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Part C: Convection Currents in Water

Pour about 400 mL of water into a 500 mL beaker and place the beaker onto a hot plate so that it is overhanging slightly. The beaker (and the water in it) will be warmed more on the side that is closer to the middle of the hot plate. Place 4 or 5 short pieces of noodle into the water.

Write down your observations: _____

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