What have you learned today? Write 3 bullet points about your learning experience today:

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What was your favourite part(s) of today's activities?

Can you think of any other examples of where:

a) Bernoulli's principle is used in modern day life, and,

b) Science is used in the America's Cup.

WELL DONE!

ATHENA PATHWAY SAIL DESIGN CHALLENGE

Name: _____

PRACTICALS

YOUR OBSERVATIONS 1

DEMONSTRATION 1 (TISSUE PAPER)

What do you expect to happen to the tissue when the air blows on it?

What did you actually observe?

Why do you think this happened?

EVALUATION

Was your sail design successful and why/ why not?

How did your design incorporate Bernoulli's principles? (you may draw a diagram if you wish to help you answer)

What would you change about your design if you were to attempt the activity again?

YOUR TASK

Using all you have learned about Bernoulli's Principle, design a sail.

- **Your sail must be made in multiple parts (to ensure a curved structure).**
- **You will use paper and tape/glue to make your sail**
- **Your sail should be strong enough to hold it's shape but free from anything which may slow it's performance and cause 'drag'.**

Draw a picture of your design here:

YOUR OBSERVATIONS 2

DEMONSTRATION 2 (PING PONG BALL)

What do you expect to happen to the ball when the air blows on it?

What did you actually observe?

Why do you think this happened?

CARRY THE KNIFE AND SPOON EXPERIMENT

Explain what happened to the knife when you put it in the water.

Now explain what happened to the spoon when you put it in the water.

BERNOULLI'S PRINCIPLE

Draw a diagram of Bernoulli's Principle below and try to explain how it works using your own words.