# Mass to gas is a winner

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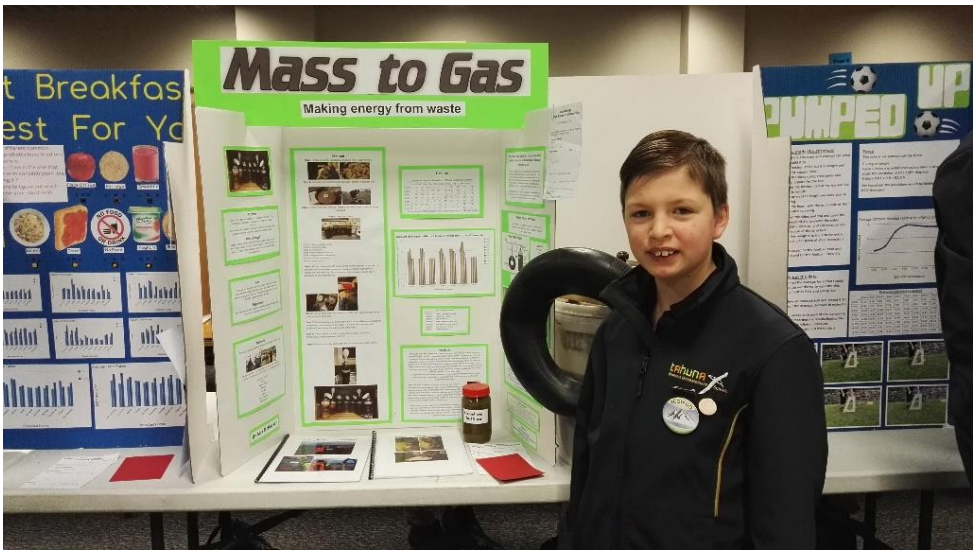


**Alex McKeever from Tahuna School shows how to win from turning waste into energy.**

**Alex won four awards at the Aurora Otago Science and Technology fair from his research into the biogas production from different organic waste materials. Not only did he research what wastes produced the most biogas but he then built his own organic waste digester at home.**

**He won the Aurora Award for Excellence in Energy Research, NZ Institute Food Science and Technology award, Forest and Bird Society Award and the Keith Dawber Memorial Award.**

When asked about Alex's research Brian Cox from the Bioenergy Association said that "Alex's win shows the quality of his research and the fact that he won four awards shows the relevance of his work to what we can be doing throughout the Community. You have to be good to get four awards."

"Processing organic waste to produce biogas and bio-fertiliser is now being considered by many food processors throughout New Zealand and Alex has shown what can be done by every food processor and dairy farmer in the Otago region."

Alex said that “Biogas is gas that is produced by the breakdown of organic matter. It is useful because it is highly flammable and can be used for producing heat such as for cooking and to run generators which can make electricity. Without being used this gas is going into our atmosphere and adding to global warming. If we can use more biogas and less fossil fuels this would really help our environment.”

When asked about his research Alex said that “Different biomass breaks down at different rates. I weighed the same amount of biomass into each container but some would have a higher water content so that could affect results. The fruit and manure mixture produced the most biogas and this could have had something to do with its higher sugar content as well as the extra bacteria from the manure.”

“I have had my homemade bio digester going for the last 6 weeks. It has filled 2 small tyre inner tubes of gas so far.”

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