STAGE 2 Chemistry⏐Deconstruction and design investigation

###### https://img.aws.livestrongcdn.com/ls-article-image-673/ds-photo/getty/article/99/178/519386251.jpg Expectations: Evaluation of mineral loss in cooking.

In this document I just kept some notes on what I might expect the students to come up with based on my research, so I have some idea what to expect. I wouldn’t give this document to the students.

Potential Hypotheses:

Googling the example I gave of cooking in aluminium pots, some points that quickly become clear are (keeping in mind ``worse’’ in this context means more aluminium in the food):

* old and scarred pots are probably worse than new pots;
* acidic foods like tomatoes are probably worse than non-acidic foods;
* the longer the cooking time, the worse it is and similarly storing food in aluminium pots for long periods of time could be bad for the same reasons;
* new pots have a coating meaning the aluminium is not in contact with the food, potentially bypassing the problem.

In terms of calcium and magnesium, some interesting hypotheses might be:

* the longer the cooking time, the more calcium and magnesium move from the food into the water.
* The less calcium and magnesium (or maybe electrolytes in general?) in the water to begin with, the more calcium and magnesium will move into the water during cooking.
* If the food is chopped into smaller pieces or even pureed, it will lose more calcium and magnesium to the water.

Interesting examples of potential investigable questions might be

* “How could I cook the food to keep as much calcium and magnesium in the food as possible?”

I’m honestly a little fuzzy on what an `investigable question’ is, and what distinguishes it from a hypothesis, so I’m struggling to think of more examples.

Methods