# *Popcorn, pikelets and chemical reactions* Digital content

### Videos

‘Popping popcorn in slow motion (Amazing close up) HD | Slow Mo’, *YouTube* (2.04 min) <https://youtu.be/4rPMIkN5fR4> (2014)

‘CO2 Fire extinguisher – Sick Science! #170’, *YouTube* (1:05 min) <https://youtu.be/kycY6iA_cF0> (2013).

‘Recipes and Chemical Reactions’, *YouTube* (3.49 min) <https://youtu.be/wGLLp1sWtkU> (2010)

‘Maillard Browning in Pancakes’, *YouTube* (3.29 min) <https://youtu.be/wM4nwiM_eVY> (2011)

‘Vinegar and Baking Soda Reaction with Explanation’, *YouTube* (3.47 min) <https://youtu.be/JKXaNR_DITw> (2012)

‘Cooking with Chemistry: a fun, at-home science experiment’, *YouTube* (2.04 min) <https://youtu.be/BNAKoecNPoE> (2012)

‘Chemical changes vs. Physical changes’, *YouTube* (3.43 min) <https://youtu.be/gCbqjs-pqJo> (2011)

‘The 10 Most AMAZING Chemical Reactions (with Reactions)’, *YouTube* (13.09 min) <https://youtu.be/0Bt6RPP2ANI> (2015)

### PowerPoints (for teacher reference only)

‘Teacher's Guide to: Balancing chemical equations’, *YouTube* (4.01 min) <https://youtu.be/z-T8rGs0LSY> (2009)

‘Chemical Reactions – TeachPower.net Powerpoint Lesson’, *YouTube* (1.01 min) <https://youtu.be/v0Vtx9ZSQ5Q> (2009)

‘Chemical Formulas – TeachPower.net Powerpoint Lesson’, *YouTube* (1.02 min) <https://youtu.be/wrska8ephRA> (2009)

### Articles

Barker, Vanessa. 2015. *Beyond Appearances: Students’ misconceptions about basic chemical ideas* A report prepared for the Royal Society of Chemistry, Arizona State University Modeling Instruction and MNS Degree programs: legacy site, [modeling.asu.edu/modeling/KindVanessaBarkerchem.pdf](http://modeling.asu.edu/modeling/KindVanessaBarkerchem.pdf)

‘What Does a Food Scientist Do?’, *Learn.org* website, <http://learn.org/articles/What_Does_a_Food_Scientist_Do.html>

### Further lessons and activities about chemical reactions

‘Physical or Chemical Change?’*Quia* website,<http://www.quia.com/quiz/303980.html>

‘Chemical reactions’, BBC *Bitesize* Science website, <https://www.bbc.co.uk/bitesize/topics/zypsgk7>

‘Chemical Reaction’, *The Naked Scientists* website, <http://www.thenakedscientists.com/HTML/experiments/food/reactions/>

‘Food Science for Kids of All Ages!’, Penn State College of Agricultural Sciences, Department of Food Science website, <http://foodscience.psu.edu/youth/experiments>

‘Food science experiments’ Institute of Food Technologists website, <http://www.ift.org/knowledge-center/learn-about-food-science/k12-outreach/food-science-experiments.aspx>

‘Explaining Gluten’, *The Cooking Science Guy* website, <http://www.cookingscienceguy.com/pages/wp-content/uploads/2012/07/Explaining-Gluten.pdf>

‘The Scientific Secret of Fluffy Pancakes’, *Scientific American* website, <http://www.scientificamerican.com/article/bring-science-home-gluten-pancakes/>