STATE TO STATE

YEAR 3-6

CHEMICAL SCIENCE

AUSTRALIAN CURRICULUM

Yr3- investigate the observable properties of solids and liquids and how adding or removing heat energy leads to a change of state
(AC9S3U04)
Yr 5 - explain observable properties of solids, liquids and gases by modelling the motion and arrangement of particles
(AC9S5U04)
Yr 6 - compare reversible changes, including dissolving and changes of state, and irreversible changes, including cooking and rusting that produce new substances
(AC9S6U04)

VICTORIAN CURRICULUM

3/ 4- solids, liquids and gases have observable properties; adding or removing heat energy leads to a change of state between solids, liquids and gases
VC2S4U04
Questioning and Predicting VC2S4I01
Evaluating VC2S4I05
Communicating VC2S4I06
5/6 - the observable properties of matter (solids, liquids and gases) can be explained by modelling the motion and arrangement of their particles; mixtures (including solutions) can be formed by combining 2 or more different substances
VC2S6U03
changes to substances may be reversible, in which case the substance may be recovered, or irreversible, in which case new substances are formed; for most substances a change of state or dissolving in water is reversible, while irreversible changes include cooking and rusting
VC2S6U04
Questioning and Predicting VC2S6I01
Evaluating VC2S6I05
Communicating VC2S6I06

LEARNING OUTCOME

How do materials change from one state to another? Are changes in state are reversible physical reactions? How does this compare to Chemical reactions?

SESSION ACTIVITIES

- Experiment with coloured sugar moving through water to observe a physical reaction.
- Make observations of a chemical reaction
- Set up and perform a chemical reaction

SCIENCE EDUCATOR DEMONSTRATIONS

- Demonstrate changes in state with a model of particles
- Demonstrate water moving through solids, liquid to gas
- Perform a chemical reaction and discuss taking observations as an important part of experimenting.

STUDENT EXPERIMENTS

- Experiment with a sugar gradient in water.
- Perform a chemical reaction producing carbon dioxide and use it to put out a candle.