



## Sample assessment task

<b>Year level</b>	6
<b>Learning area</b>	Science
<b>Subject</b>	Chemical Sciences
<b>Title of task</b>	Observing chemical change

## Task details

<b>Description of task</b>	Students observe the teacher demonstrating three practical activities involving physical or chemical change. Examples may include: melting butter, toasting bread, cooking an egg, popping popcorn, melting ice, burning paper, wetting tissue paper. Students to demonstrate knowledge and understanding of chemical change in the table provided.
<b>Type of assessment</b>	Formative
<b>Purpose of assessment</b>	This task is completed at the end of the unit of work.
<b>Assessment strategy</b>	Short answer, completed table
<b>Evidence to be collected</b>	Completed grid
<b>Suggested time</b>	1 hour

## Content description

<b>Content from the Western Australian Curriculum</b>	<p><b>Science understanding</b> Changes to materials can be reversible or irreversible</p> <p><b>Science inquiry skills</b> Identify, plan and apply the elements of scientific investigations to answer questions and solve problems using equipment and materials safely and identifying potential risks Compare data with predictions and use as evidence in developing explanations Communicate ideas, explanations and processes using scientific representations in a variety of ways, including multi-modal texts</p>
---	--

## Task preparation

<b>Prior learning</b>	Students have prior knowledge of reversible and irreversible change and can provide examples of everyday situation where these changes occur. They understand that there is change that takes place when a chemical reaction has occurred.
<b>Assessment differentiation</b>	Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged. Where appropriate, teachers may either scaffold or extend the scope of the assessment tasks.

## Assessment task

<b>Assessment conditions</b>	This is an individual in-class assessment.
<b>Resources</b>	<p><b>Background material and teacher resources</b></p> <p>Matter is the stuff around you <a href="http://www.chem4kids.com/files/matter_intro.html">http://www.chem4kids.com/files/matter_intro.html</a></p> <p>BBC Kids simulation game for kids <a href="http://www.bbc.co.uk/schools/scienceclips/ages/10_11/rev_irrev_changes_fs.shtml">http://www.bbc.co.uk/schools/scienceclips/ages/10_11/rev_irrev_changes_fs.shtml</a></p> <p><b>Videos</b></p> <p>ADLC - Elementary Science: Reversible and Irreversible Changes <a href="https://www.youtube.com/watch?v=XRHBrdhd9_U">https://www.youtube.com/watch?v=XRHBrdhd9_U</a></p> <p>Reversible And Irreversible Change School Project <a href="https://www.youtube.com/watch?v=-jYzW4XuKY4">https://www.youtube.com/watch?v=-jYzW4XuKY4</a></p> <p>Unit 6E Reversible and Irreversible Changes The Science Video <a href="https://www.youtube.com/watch?v=tHM0UkhwfsQ">https://www.youtube.com/watch?v=tHM0UkhwfsQ</a></p> <p>Physical versus Chemical Changes <a href="https://www.youtube.com/watch?v=hcunQqbNEMQ">https://www.youtube.com/watch?v=hcunQqbNEMQ</a></p> <p>What is the difference between chemical and physical change? <a href="https://www.youtube.com/watch?v=p-06S_os1Zw">https://www.youtube.com/watch?v=p-06S_os1Zw</a></p>

### **Instructions for teacher**

1. Teacher conducts this activity while students observe and complete activity sheet independently.
2. Teacher to provide a basic explanation of process.
3. Students are required to apply their scientific knowledge and understanding to completing the task.

Identify the ingredient (or material) and the process applied.			
Is the change physical or chemical? Explain why.			
Is there a new material or substance? Describe what it looks like.			
Is the change reversible or irreversible?			
What are the dangers or risks in conducting this activity? How can we prevent these?			

## Sample marking key

Description	Marks
Results table	
Correctly states the process undertaken. Correctly identifies and describes, in detail, observable chemical or physical changes that have occurred. Provides information about the new material or substance and its properties.	5-6
Correctly states the process undertaken. Describes the physical changes that have occurred. Describes observable chemical changes that have occurred. Identifies a new material or substance.	3-4
Lists a physical change observed. Lists a chemical change observed.	1-2
<b>Subtotal</b>	<b>6</b>
Description	Marks
Describes safety risks and suggests ways to minimise risks.	3
Describes safety risks.	2
Lists some safety risks.	1
<b>Subtotal</b>	<b>3</b>
<b>Total</b>	<b>9</b>