

Spot the Difference – Stage 1

Material World Strand


Term	1	2	3	4	Weeks	1	2	3	4	5	6	7	8	9	10	11
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Outcome	Lesson Sequence – Overview	Resources	Word Wall
<p>ST1-6MW-S identifies that materials can be changed or combined</p> <ul style="list-style-type: none"> describe the properties of a food before and after a change explain the reasons for the change describe the time taken to change explain if the change can be reversed. <p>ST1-1WS-S observes, questions and collects data to communicate and compare ideas</p> <ul style="list-style-type: none"> contribute to discussions about changes to a food record their current understanding of a change to food identify the purpose and features of a science journal identify the purpose and features of a word wall. 	<p>Lesson 1 <u>Change Mystery – Lesson focus p11</u></p> <ul style="list-style-type: none"> To capture students' interest and find out what they think they know about how everyday materials can be physically changed in a variety of ways. To elicit students' questions about how foods change. <p><u>Students:</u></p> <ul style="list-style-type: none"> observe a melted ice pole share observations and ideas about the ice pole with a partner share and discuss explanations with the class. 	<p>For the class</p> <ul style="list-style-type: none"> class science journal word wall 1 enlarged copy of 'What happened?' (Resource sheet 1) 1 enlarged copy of 'Think: Pair: Share' (Resource sheet 2) mystery object (a melted ice pole still in its wrapper) frozen ice pole <p>For each student</p> <ul style="list-style-type: none"> 1 copy of 'What happened?' (Resource sheet 1) <i>Optional:</i> ice block or ice pole (see Lesson step 12) 	<p><i>boil</i></p> <p><i>bread</i></p> <p><i>build</i></p> <p><i>change</i></p> <p><i>chocolate</i></p> <p><i>compare</i></p> <p><i>cooked</i></p> <p><i>cool</i></p> <p><i>egg</i></p> <p><i>food</i></p> <p><i>freeze</i></p> <p><i>frozen</i></p> <p><i>fry</i></p> <p><i>hard</i></p> <p><i>heat</i></p>

<p>ST1-6MW-S identifies that materials can be changed or combined</p> <ul style="list-style-type: none"> • explore and describe the properties of uncooked spaghetti • explore and describe the properties of cooked spaghetti • compare the properties of cooked and uncooked spaghetti. <p>ST1-1WS-S observes, questions and collects data to communicate and compare ideas</p> <ul style="list-style-type: none"> • discuss what they know about the properties of spaghetti and how they can change by cooking • contribute to a class chart describing the properties of cooked and uncooked spaghetti • create an annotated drawing using spaghetti • create a word chain about cooked and uncooked spaghetti. 	<p>Lesson 2 <u>Spaghetti scientists – Lesson focus p18</u></p> <ul style="list-style-type: none"> • To provide hands-on, shared experiences of changes to the properties of spaghetti through cooking. <p>Session 1 Spaghetti fun</p> <p><u>Students:</u></p> <ul style="list-style-type: none"> • <i>read a poem about spaghetti</i> • <i>explore the properties of cooked spaghetti</i> • <i>create an annotated drawing using cooked spaghetti.</i> <p>Session 2 Spaghetti towers</p> <p><u>Students:</u></p> <ul style="list-style-type: none"> • <i>explore the properties of uncooked spaghetti</i> • <i>create a tower using uncooked spaghetti</i> • <i>create a word chain about cooked and uncooked spaghetti.</i> 	<p>Session 1 For the class</p> <ul style="list-style-type: none"> • class science journal • word wall • team roles chart • team skills chart • poem about spaghetti (see Lesson step 2) • ‘Spaghetti—Spot the difference’ chart (see ‘Preparation’) <p>For each team</p> <ul style="list-style-type: none"> • role wristbands or badges for Manager and Speaker • each team member’s science journal • cooked spaghetti (see ‘Preparation’) • plastic plate or sheet of plastic or paper <p>Session 2 For the class</p> <ul style="list-style-type: none"> • class science journal • word wall • team roles chart • team skills chart • ‘Spaghetti—Spot the difference’ chart • several pieces of cooked spaghetti • several small marshmallows • 8 blank cards (see ‘Preparation’) 	<p><i>ice</i></p> <p><i>investigation</i></p> <p><i>irreversible</i></p> <p><i>journal</i></p> <p><i>liquid</i></p> <p><i>marshmallow</i></p> <p><i>materials</i></p> <p><i>melt</i></p> <p><i>observe</i></p> <p><i>popcorn</i></p> <p><i>properties</i></p> <p><i>reversible</i></p> <p><i>roll</i></p> <p><i>runny</i></p> <p><i>science</i></p> <p><i>small</i></p> <p><i>smooth</i></p> <p><i>snap</i></p>
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		<p>For each team</p> <ul style="list-style-type: none"> • role wristbands or badges for Manager and Speaker • each team member's science journal • uncooked spaghetti (see 'Preparation') • small marshmallows (see 'Preparation') • 4 large marshmallows 	<p><i>soft</i> <i>solid</i> <i>spaghetti</i> <i>stick</i> <i>stretch</i> <i>team</i></p>
<p>ST1-6MW-S identifies that materials can be changed or combined</p> <ul style="list-style-type: none"> • predict how heating and cooling can change foods • identify how a food changes when heated and cooled. <p>ST1-1WS-S observes, questions and collects data to communicate and compare ideas</p> <ul style="list-style-type: none"> • use talk to share observations with the class • describe changes in the properties of food when heated and cooled. 	<p>Lesson 3 <u>Hot and Cold – Lesson focus p26</u></p> <ul style="list-style-type: none"> • To provide hands-on, shared experiences of observable changes when foods are heated and cooled. <p><u>Students:</u></p> <ul style="list-style-type: none"> • <i>observe samples of bread, popcorn and chocolate before and after heating and compare their properties</i> • <i>describe observed changes to heated and cooled foods</i> • <i>discuss whether different changes to foods are reversible.</i> 	<p>For the class</p> <ul style="list-style-type: none"> • class science journal • word wall • team roles chart • team skills chart • 1 slice of bread • 1 slice of toast • 1 enlarged copy of 'Heat and cool' (Resource sheet 3) <p>For each team</p> <ul style="list-style-type: none"> • role wristbands or badges for Manager and Speaker • each team member's science journal • 1 copy of 'Heat and cool' (Resource sheet 3) per team member • 1 plastic resealable bag • 1 milk chocolate bud • a few uncooked popcorn kernels • a few pieces of cooked popcorn 	<p><i>time</i> <i>toast</i> <i>tower</i> <i>uncooked</i> <i>yolk</i></p>

		<ul style="list-style-type: none"> • <i>Optional:</i> cooled melted chocolate and cooled popcorn (see Lesson step 9) 	
<p>ST1-6MW-S identifies that materials can be changed or combined</p> <ul style="list-style-type: none"> • describe an egg and its properties • identify errors in the explanations about eggs and their properties. <p>ST1-1WS-S observes, questions and collects data to communicate and compare ideas</p> <ul style="list-style-type: none"> • use talk to share use talk to contribute to a class discussion about eggs and their properties • draw and explain how eggs can change 	<p>Lesson 4</p> <p><u>Looking for a change – Lesson focus p</u></p> <ul style="list-style-type: none"> • To support students to represent and explain their understanding of how heating and cooling affect everyday materials, and to introduce current scientific views about how the properties of foods change when they are cooked. <p><u>Students:</u></p> <ul style="list-style-type: none"> • <i>discuss the properties of eggs and how they can be changed</i> • <i>identify problems in pictures about changing eggs.</i> 	<p>For the class</p> <ul style="list-style-type: none"> • class science journal • word wall • team roles chart • team skills chart • 1 enlarged copy of 'Silly eggs!' (Resource sheet 4) <p>For each team</p> <ul style="list-style-type: none"> • role wristbands or badges for Manager and Speaker • each team member's science journal • 1 copy of 'Silly eggs!' (Resource sheet 4) per team member 	

<p>ST1-6MW-S identifies that materials can be changed or combined</p> <ul style="list-style-type: none"> • predict which type of chocolate will melt fastest • observe and compare the melting times of different types of chocolate. <p>ST1-1WS-S observes, questions and collects data to communicate and compare ideas</p> <ul style="list-style-type: none"> • describe observations of chocolate buds before and after they have changed • participate in a class discussion about which type of chocolate will melt fastest. 	<h2>Lesson 5</h2> <p><u>Melting Moments – Lesson focus p37</u></p> <ul style="list-style-type: none"> • To support students to plan and conduct an investigation of which type of chocolate bud melts the fastest. <p>Students:</p> <ul style="list-style-type: none"> • <i>review what they know about foods and how foods can change</i> • <i>work in collaborative learning teams to investigate melting different types of chocolate buds</i> • <i>discuss observations and results of the investigation.</i> 	<p>For the class</p> <ul style="list-style-type: none"> • class science journal • word wall • team roles chart • team skills chart • 1 white chocolate bud • 1 small plastic resealable bag <p>For each team</p> <ul style="list-style-type: none"> • each team member's science journal • role wristbands or badges for Manager and Speaker • 1 each of a dark and white chocolate bud • 2 small plastic resealable bags 	
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<p>ST1-6MW-S identifies that materials can be changed or combined</p> <ul style="list-style-type: none"> describe the properties of different foods describe how foods can change through heating and cooling. <p>ST1-1WS-S observes, questions and collects data to communicate and compare ideas</p> <ul style="list-style-type: none"> participate in a class discussion about the properties of foods use words and pictures to describe changes to different foods 	<p>Lesson 6</p> <p><u>Change champions – Lesson focus p42</u></p> <p>To provide opportunities for students to represent what they know about how everyday materials can be physically changed in a variety of ways, and to reflect on their learning during the unit.</p> <p><u>Students:</u></p> <ul style="list-style-type: none"> <i>describe what they know about a food</i> <i>describe how the properties of the food can change through heating and cooling.</i> 	<p>For the class</p> <ul style="list-style-type: none"> class science journal word wall 1 enlarged copy of 'Food changes' (Resource sheet 5) <p>For each student</p> <ul style="list-style-type: none"> science journal 1 copy of 'Food changes' (Resource sheet 5) 	
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