

Setting Temperatures: Burners and Ovens

Setting Temperatures: Burners and Ovens

This unit helps prepare the student to work as an assistant in a kitchen setting. Students will learn how to set temperatures on ovens and burners. Standard dials and knobs will be presented, but it should be emphasized to students that there are many different types of cooking appliances, all with different styles of controls. However, the general teaching of the unit will prepare them for specific training that they should receive on the job.

They will also be shown how to use a meat thermometer to determine the internal temperature of food.

PREREQUISITE OR ADDITIONAL SKILLS NOT TAUGHT IN THIS UNIT

- Ability to relate temperature to daily activities
- Understanding of concepts of above and below, left and right, top and bottom, front and back or rear, up and down, increase and decrease, higher and lower, more and less
- Recognition of numbers to 1000
- Writes numbers to 1000
- Use of number line to assist in counting by 25s to 1000
- Understanding of use of abbreviations in everyday life
- Some experience working with a stove or oven is helpful
- Using a keypad to enter numbers

OBJECTIVES

Students will

- Recognize the layout of burners on a stovetop
- Match the control dials to appropriate burners
- Set burner dials to given temperatures
- Know safe procedures when working with stoves and ovens
- Do simple cooking
- Understand Celsius and Fahrenheit scales as they relate to oven settings
- Read and understand an oven temperature dial
- Set oven temperatures to a given temperature: digital and dial
- Compare temperatures in Celsius and Fahrenheit
- Read a meat thermometer.

MATERIALS

- Magazines or catalogs with pictures of stoves and ovens
- Grocery flyers
- Chart paper, markers, etc.
- Laminating facilities: laminate and mount Teaching Aids
- Vocabulary cards
- Temperature cards: labeled with oven temperatures 300°F, 325°F ... 450°F
- Temperature cards: Low, Medium-low, Medium, Medium-High, High.
- 2 saucepans, spoon, sieve, pasta & pasta sauce
- Cardboard oven dial: cut out and mount one from the Teaching Aid
- Metal fasteners (for attaching hand to dial)
- Various items with built in thermometer dials (electric frying pan or wok,, toaster oven, etc.)
- Meat thermometer
- Food to use with meat thermometer: TV dinner, chicken thigh, etc.
- Potato, potato peeler, knife
- Mini pizza if desired (or other food)
- Access to kitchen

VOCABULARY

- Appliances
- Bacteria
- Back
- Bake
- Boil
- Broil
- Burner
- Celsius
- Centigrade
- Cook / cooking
- Degrees
- Dial
- Fahrenheit
- Front
- Gloves
- Handle
- Heat
- High (Hi)
- Internal
- Left
- Liquid
- Low (Lo)
- Meat
- Medium (Med)
- Medium-high
- Medium-low
- Needle
- Off
- Oven
- Parasite
- Position
- Pot
- Pre-heat
- Rear
- Recommended
- Reheat
- Right
- Safety
- Saucepan
- Setting
- Simmer
- Stove
- Temperature
- Thermometer
- Toast
- Virus

RESOURCES

- Larger grocery stores may have a community kitchen that can be used for classes.
- The cafeteria or staff room in your workplace
- www.canfightbac.org for safe food handling

#	Activity Description	ESSENTIAL SKILLS																
		RT	DU	W	N					OC	TS					WWO	CU	CL
					MM	SBA	MC	DA	NE		PS	DM	JTPO	SUM	FI			
1.	Stove experience and safety	1	1							2				*				*
2.	Burner identification	1	1	1						1	1	1		*				*
3.	Setting stovetop dials	1	1	1			1			1	1	1		*				*
4.	Different temperatures for different foods	1	1	1			1			2	1	1		*				*
5.	Cooking	1	1							1				*		*		*
6.	Temperature experience		1					1		1	1	1		*				*
7.	Temperature – Celsius		1					1		1	1	1		*				*
8.	Temperature – Fahrenheit		1					1		1	1	1		*				*
9.	Comparing the scales	1	1					1		1	1	1		*				*
10.	Setting oven temperature – digital		1				1			1	1	1		*				*
11.	Setting oven temperature – dial		1				1			1	1	1		*				*
12.	Pre-heat	1	1				1			1	1	1		*				*
13.	Broil, bake, roast		1							1	1	1		*				*
14.	Using a meat thermometer		1				1			1	1	1		*				*
D	Cook up a storm	1	1				1				1	2		*				

LEARNING ACTIVITIES

<p>1. STOVE EXPERIENCE AND SAFETY</p> <ul style="list-style-type: none"> • Reading Text 1 • Document Use 1 • Oral Communication 2 • Thinking Skills <ul style="list-style-type: none"> ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Teaching Aid: <i>Safe Use of a Stove</i>
<p>Ask students to share their experiences with stoves, their fears and their concerns. Point out to students that safety is very important with a stove, but, with proper care, they can learn to operate it with confidence.</p> <p>Talk about some of the safety precautions when operating a stove. Students may be able to volunteer some of these. Read the Teaching Aid: <i>Safe Use of a Stove</i>.</p> <ul style="list-style-type: none"> • Ask students why they shouldn't touch a burner, even if it looks black. (It may still be hot from prior use and could cause a burn.) • Demonstrate how to turn pot handles toward the back of the stove. Explain that handles are easy to accidentally hit, and the pot may be knocked over and spill hot liquid. • Explain (or give personal anecdotes) how forgetting about a pot on the stove can cause the liquid to boil away, and the food will burn onto the bottom of the pot. This can cause a fire if left too long. • Fires can also be started by spilled oil or grease, or a burner left on for long periods. 	

<p>2. BURNER IDENTIFICATION</p> <ul style="list-style-type: none"> • Reading Text 1 • Document Use 1 • Writing 1 • Oral Communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Stove • Pictures of a variety of stovetops from magazines, catalogs, etc. • Student Activity Sheet: <i>Stovetop</i> • Student Activity Sheet: <i>Burner Identification</i>
<p>Look at a stove in the staff room or kitchen.</p> <p>Locate the word “front” on the stovetop (usually with the burner knobs.)</p> <ul style="list-style-type: none"> • Explain that the front burners are the ones closest to them as they face the stove. • Locate the word “back” or “rear” on the stovetop. (Explain that these words mean the same) • Ask which burners they think are the rear ones. (The furthest away from them as they face the stove.) <p>Note that there are two front burners, a left and a right, and two back burners, a left and a right.</p> <ul style="list-style-type: none"> • Look for those words on the stovetop. • Tell students that each burner is identified with either front or back and left or right. • Using the stove itself, point to each burner in turn and have them name it. • Then ask them to point to the burner that you name. • Use Student Activity Sheet: <i>Stovetop</i>. <p>Explain that all stovetops do not look the same, but the burners are usually set in the same positions.</p> <ul style="list-style-type: none"> • You could examine pictures from household magazines, catalogues, etc. to compare stovetops. • Note that the burner controls may be on the side, on the front or at the back. • There may be diagrams on some stoves and not on others etc. • Use Student Activity Sheet: <i>Burner Identification</i> for further practice. 	

<p>3. SETTING STOVETOP DIALS</p> <ul style="list-style-type: none"> • Reading Text 1 • Document Use 1 • Writing 1 • Numeracy <ul style="list-style-type: none"> ◦ Measurement & Calculation 1 • Oral Communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Stove , or take digital photos of several types of stove: print and laminate • Teaching Aid: <i>Setting Dials</i> • Student Activity Sheet: <i>Label the Burner Dial</i> • Student Activity Sheet: <i>What's It Set At?</i>
<p>Explain that some stoves have dials beside the burners. The dial for the front burners would be beside them; the dials for the back burners would be beside them. Some stovetops locate all the dials at the back of the stove. Still others locate them on the front of the stove or down one side. It is important to know which dial controls which burner.</p> <ul style="list-style-type: none"> • How can they tell on the stove you are using (words, diagram?) <p>Stove dials let them heat the burner to a certain temperature. The higher the heat, the hotter the burner will be. Temperature words, low, medium, and high are commonly used. Some stoves may have additional words: simmer, medium-low, medium-high.</p> <ul style="list-style-type: none"> • Explain the meaning of each. <p>Use Teaching Aid: <i>Setting Dials</i> to read the meanings of each setting.</p> <ul style="list-style-type: none"> • Make sure that students know that they must know these words, because some dials will have low on the right, and others may have high on the right. • Some stoves may even use numbers to represent low, medium and high. • Training should be given at the workplace before they are expected to use the stove. If training is not given, they should ask for it. <p>Other heat appliances to set temperatures too: electric frying pan, grill, toaster oven etc.</p> <ul style="list-style-type: none"> • Show examples of each. • Note that some of these dials look more like the oven dial with numbers like 300, 400, etc. These will be learned later. <p>Demonstrate turning a burner on to high.</p> <ul style="list-style-type: none"> • Turn it down to low. • Have students do the same. • Place a pot of water on the burner to prevent accidental touching of the hot element. <p>Use Student Activity Sheets: <i>Label the Burner Dial</i> and <i>What's It Set At?</i></p>	

<p>4. DIFFERENT TEMPERATURES FOR DIFFERENT FOODS</p> <ul style="list-style-type: none"> • Reading Text 1 • Document Use 1 • Writing 1 • Numeracy <ul style="list-style-type: none"> ◦ Measurement & Calculation 1 • Oral Communication 2 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Chart paper and markers • Stove • Teaching Aid: Medium-Low and Medium-High • Student Activity Sheet: <i>Order the Temperatures</i> • Student Activity Sheet: <i>Cook Wisely</i>
<p>Explain that different temperatures are used for different cooking methods.</p> <ul style="list-style-type: none"> • When they want something to cook quickly, the dial should be set at high. • When they are warming up leftovers slowly, the dial should be set at low. • Simmer is another word that means “to cook slowly”. • Most other cooking will be done in the medium range. • Often a high temperature is used first, to bring the food to the boil, and then is decreased to cook the food and prevent boiling over. <p>Make a cooking chart for suggested dial settings and post it in the room, or beside the stove if possible. Some suggestions could be</p> <ul style="list-style-type: none"> • BOIL water for potatoes HIGH (HI) • SIMMER rice pudding LOW (LO) • REHEAT leftovers LOW (LO) • HEAT soup MEDIUM (MED) • Etc. <p>Sometimes recipes will ask students to cook at medium-low or medium-high.</p> <ul style="list-style-type: none"> • This means that the dial should be set between the two given temperatures. • Use Teaching Aid: <i>Medium-Low and Medium-High</i> to show the temperature settings. • Demonstrate this on the real stove if possible. <p>Use Student Activity Sheets: <i>Order the Temperature</i> and <i>Cook Wisely</i>.</p>	

<p>5. COOKING</p> <ul style="list-style-type: none"> • Reading Text 1 • Document Use 1 • Oral Communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Significant Use of Memory • Working With Others • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Stove • Teaching Aid: <i>Cooking</i> • 2 saucepans, spoon for stirring, sieve for straining • Pasta, pasta sauce, salt
<p>Explain to students that they may need to cook food according to given instructions from a chef or cook.</p> <p>Use Teaching Aid: <i>Cooking</i>.</p> <ul style="list-style-type: none"> • They should read the instructions to you. • You will demonstrate this scenario, and as you cook, remind students of the safety issues from Learning Activity 1. • Focus on the different dial settings used. <p>If wanted, you could give students the opportunity to do some simple cooking from directions, using various burner settings.</p>	

<p>6. TEMPERATURE EXPERIENCE</p> <ul style="list-style-type: none"> • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Data Analysis 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials: None</p> <ul style="list-style-type: none"> •
<p>Point out to students that sometimes we want an accurate measurement of temperature (not just low, medium, high, etc.)</p> <ul style="list-style-type: none"> • Discuss with the students what we measure specific temperatures of and why (weather-so we'll know how to dress, people-so we'll know if they are sick, meat-so we'll know if it is cooked and safe to eat, etc.) <p>Discuss with students temperatures they have heard and what that means to them.</p> <ul style="list-style-type: none"> • For example, ask students if any of them know the temperature that day. • Ask if that temperature is cold or hot or just nice. <p>Ask students how the temperature outside or the temperature of a person is usually measured (with a thermometer).</p> <ul style="list-style-type: none"> • What is the unit used to measure temperature? (degrees) • Write the symbol for degrees on the board: ° <p>Point out the number changes as the temperature changes.</p> <ul style="list-style-type: none"> • As the number of degrees increases, the temperature gets hotter. • As the number of degrees goes down, the temperature gets colder. • Ask which is hotter: <ul style="list-style-type: none"> ◦ 30° or 60°? ◦ 150° or 300°? ◦ 250° or 90°? etc. • Ask which is colder: <ul style="list-style-type: none"> ◦ 25° or 10°? ◦ 5° or 35°? ◦ 50° or 20°? <p>If students ask about below zero temperatures, you could take the opportunity to discuss it, or you could explain that when cooking food, they will always be using hot temperatures. However, it is important to be able to read the negative temperatures as they may need to check the thermometer gauge in the freezer at a workplace, and record this.</p>	

<p>7. TEMPERATURE - CELSIUS</p> <ul style="list-style-type: none"> • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Data Analysis 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials: None</p>
<p>Explain that there are two scales for measuring degrees. One is the Celsius scale. That is the one that most of us are familiar with from listening to weather reports.</p> <p>Ask what sound they hear at the beginning of Celsius.</p> <ul style="list-style-type: none"> • What letter is that? (They may say S.) • We use a C. as a short form after the degree sign to show the temperature is in degrees Celsius. • Why? Name of person who developed the scale. • Write ° C. on the board. • The other name for this scale is Centigrade. • Write Centigrade on the board. • Ask what little word it begins with. (cent) • Ask how many cents there are in a dollar (100). • Explain that this scale is based on 100. <p>Ask students if they know what the freezing point for water is in ° C. (0°C.)</p> <ul style="list-style-type: none"> • This is the point that water will turn into ice. • What temperature do they think a freezer should be set at? (Below -18°C. This is much lower than the actual freezing point – for food safety.) <p>Ask if they know at what temperature water boils? (100°C.)</p> <ul style="list-style-type: none"> • What does boiling mean? (That is the temperature at which the liquid evaporates - turns into gas/steam) • Any temperatures above 40 on the Celsius scale will burn the skin. • Boiling water is VERY hot. So is the steam, and they must be very careful. <p>Note at this point that this scale uses 100 degrees to go from water freezing to water boiling.</p> <p>Ask students if they know what normal body temperature is. (37 ° C.)</p> <ul style="list-style-type: none"> • If your body temperature is 39 ° C., what does that tell you? • If the temperature outside is 40 ° C., is it comfortable for you? 	

<p>8. TEMPERATURE - FAHRENHEIT</p> <ul style="list-style-type: none"> • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Data Analysis 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials: None</p>
<p>Ask what sound they hear at the beginning of Fahrenheit.</p> <ul style="list-style-type: none"> • What letter is that? • We use an F. as a short form after the degree sign to show the temperature is in degrees Fahrenheit. • Write ° F. on the board. • Tell them it is named for the person who developed the scale. <p>Ask students if they know what is the freezing point for water in ° F. (32° F.)</p> <ul style="list-style-type: none"> • Remind them that this is the point that water will turn into ice. • What temperature do they think their freezer is set at? (Below 0° F.) <p>Ask if they know at what temperature water boils? (212 ° F.)</p> <ul style="list-style-type: none"> • Any temperatures up in the 100s or 200s or higher on the Fahrenheit scale will burn the skin. <p>Ask students if they know what normal body temperature is. (98.6 ° F.)</p> <ul style="list-style-type: none"> • If your body temperature is 104 ° F., what does that tell you? • If the temperature outside is 100 ° F., is it comfortable for you? <p>Explain that most recipes use Fahrenheit degrees;</p> <ul style="list-style-type: none"> • 325, 350, 375, 400, 425, 450, are most common for baking and cooking. • They need to be able to count by 25s since recipes use these numbers. • Practise counting by 25s from 100 to 550. 	

<p>9. COMPARING THE SCALES</p> <ul style="list-style-type: none">• Reading Text 1• Document Use 1• Numeracy<ul style="list-style-type: none">◦ Data Analysis 1• Oral communication 1• Thinking Skills<ul style="list-style-type: none">◦ Problem Solving 1◦ Decision Making 1◦ Significant Use of Memory• Continuous Learning	<p>Materials:</p> <ul style="list-style-type: none">• Teaching Aid: Compare the Scales - Celsius and Fahrenheit• Student Activity Sheet: <i>Celsius and Fahrenheit</i>
<p>Make a chart on the board or use the Teaching Aid: <i>Compare the Scales – Celsius and Fahrenheit</i>.</p> <ul style="list-style-type: none">• Explain that each pair of actual temperatures are measuring the same amount of heat; they just use different scales to measure it. <p>Use Student Activity Sheet: <i>Celsius and Fahrenheit</i> as follow ups.</p>	

<p>10. SETTING OVEN TEMPERATURE - DIGITAL</p> <ul style="list-style-type: none"> • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Measurement & Calculation 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Temperature cards: 300°F, 325°F etc.
<p>Ask students if it is possible to set the temperature outside (wouldn't it be nice if we could?)</p> <p>Explain that we can set the temperature wanted for an oven.</p> <p>Ask why this would be important for an oven (so that food will cook properly-it will be well done, but not burned).</p> <p>Explain that when the oven gets to the temperature that we set, it keeps the temperature close to that level (by turning the heat up and down automatically).</p> <p>Take students to a kitchen, staff room or area where there is an oven. If none is available use pictures of appliances – you may have to enlarge them for clarity.</p> <p>Draw students' attention to the display panel. Some ovens have a circular dial while others have a keypad like that on the telephone. Remind them that this is like the two types of clock: digital and analog. **</p> <p>To set a digital oven control, they will use the keypad. Often they will need to first select "oven" or "bake" from other buttons on the panel. Remind them that each oven is operated differently, and they should make sure to ask for training before using one in a workplace.</p> <p>Practise setting the oven temperature. Make a set of oven temperature cards, similar to vocabulary cards with the common temperatures. Show a student a card, or let them draw from the pile and ask that the oven be set to that temperature. Make sure to turn the oven off when finished.</p> <p>**If the stove you are using has a dial, explain the digital method using the board. They could practise setting the temperature by using the keyboard on a computer.</p>	

<p>11. SETTING OVEN TEMPERATURE - DIAL</p> <ul style="list-style-type: none"> • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Measurement & Calculation 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Teaching Aid: <i>Oven Dial</i> • Temperature cards • Oven (kitchen access) • Electric appliances with temperature dials: electric frying pans and woks, toaster ovens, etc. • Student Activity Sheet: <i>What Temperature?</i>
<p>If the stove you are using has a dial, then this activity may be done with the stove itself. Otherwise, use a cardboard dial.</p> <ul style="list-style-type: none"> • Use Teaching Aid: <i>Oven Dial</i>. Have each student make a dial <p>Ask them to read the word "OFF".</p> <ul style="list-style-type: none"> • Ask where the "OFF" is usually found on most oven dials. • Explain that you read an oven dial in a clockwise direction, the same direction as a clock. (Show this with your arms and draw on the board.) <p>Point to the letters F and C, and ask students what they think these letters stand for (Fahrenheit, Celsius).</p> <ul style="list-style-type: none"> • Point out that many oven dials use both temperature scales because recipes use both scales. • Usually the degree symbol is not used on temperature dials. • They will be using the Fahrenheit cooking temperatures, as that is most common in North America. <p>Explain that the F is on the top and the C is on the bottom to show us that all numbers on the top will be °F, and all numbers on the bottom will be °C.</p> <ul style="list-style-type: none"> • Suggest that they colour code their dials. • They could use a yellow highlighter for all the Celsius numbers and a pink one for the Fahrenheit. <p>To give students practice in reading the temperature dial, use Student Activity Sheet: <i>What Temperature?</i></p> <p>Explain that all temperature dials are similar.</p> <ul style="list-style-type: none"> • Show students dials from electric frying pans, toaster ovens, etc. • Point out that if only one temperature scale is shown, it will be Fahrenheit. 	

<p>12. PREHEAT</p> <ul style="list-style-type: none"> • Reading Text 1 • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Measurement & Calculation 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Oven • Temperature cards • Student Activity Sheet: <i>Setting the Oven Dial</i>
<p>Explain that it is important that the oven be set exactly to the given temperature.</p> <ul style="list-style-type: none"> • Ask why. (Things may burn or not cook properly if it is not.) <p>Explain that a recipe will always tell you what temperature to set the oven. It will usually say, "Preheat oven to ___ ° F. (___ °C.)". Or a cook in a restaurant may ask you to preheat the oven to a certain temperature. Ask why. (The time for cooking will not be correct if the heat is not already there at the start; some foods must begin with a high temperature; etc.)</p> <p>You will know when the oven is ready because there will be some kind of indicator: a light, a bell, the number showing on the display, etc.</p> <ul style="list-style-type: none"> • Each oven is different; they will need to learn this at the workplace. <p>Remind students that care must always be taken when working with an oven.</p> <ul style="list-style-type: none"> • Oven mitts or oven gloves must be used when putting food into or taking food out of the oven. Why? (They could be burned by the oven or the oven racks or the food container.) <p>Note that not all settings are written on the dial: for example, 275°, 325°, 375°, 425° are not.</p> <ul style="list-style-type: none"> • They come between two other settings. • Ask how they would set 325°. (halfway between 300° and 350°) • Remind them that they know how to count by 25s and will use this skill in setting the oven dial. <p>Use the temperature cards as before, asking students to set the oven dial to the temperature on the card.</p> <p>Remember to turn off the oven after you are finished.</p> <p>Use Student Activity Sheet: <i>Setting the Oven Dial</i> for further practice.</p> <p>If you wish to teach Celsius temperature settings, make temperature cards with Celsius settings to match those on the dial you are using.</p>	

<p>13. BROIL, BAKE, ROAST</p> <ul style="list-style-type: none"> • Document Use 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Prepared vocabulary cards • Chart paper, markers, glue • Grocery store flyers
<p>Explain that temperature dials may also have words on them, such as BROIL.</p> <ul style="list-style-type: none"> • Explain that when we broil something, we use very high heat (note its position on the oven dial), and the heat comes from the top of the oven. • Broiled food gets browned quickly and fat drips off onto a pan. • Name some foods you might broil (steak, stuffed tomatoes, cheese on buns, French onion soup, etc.) • Grill is another word that can mean the same) <p>Talk about what foods people bake in the oven (pies, cakes, cookies, etc.).</p> <ul style="list-style-type: none"> • Usually, when food is put in the oven, we are baking it. • Any temperature from low heat to fairly high heat may be used. • The heat goes all around the food. <p>Roasting is also done in the oven, and refers to meats.</p> <ul style="list-style-type: none"> • It is like baking because the heat is all around. <p>Make a chart with the key words Broil, Bake and Roast.</p> <ul style="list-style-type: none"> • Have students find pictures of foods that are cooked each way. • Grocery store flyers would be a good source. 	

<p>14. USING A MEAT THERMOMETER</p> <ul style="list-style-type: none"> • Document Use 1 • Numeracy <ul style="list-style-type: none"> ◦ Measurement & Calculation 1 • Oral communication 1 • Thinking Skills <ul style="list-style-type: none"> ◦ Problem Solving 1 ◦ Decision Making 1 ◦ Significant Use of Memory • Continuous Learning 	<p>Materials:</p> <ul style="list-style-type: none"> • Meat thermometer • Food item to use with meat thermometer (chicken thigh, leftovers, TV dinner, etc.) • Microwave oven (for heating food) • Teaching Aid: Recommended Internal Cooking Temperature
<p>Ask students how they find out if they have a fever or high temperature. (Thermometer)</p> <p>In a similar way, to find out what the internal temperature of meat is, they will insert a meat thermometer.</p> <ul style="list-style-type: none"> • Why is the internal temperature important? <ul style="list-style-type: none"> ◦ Explain that they could get sick if the meat is not cooked enough, because bacteria could grow. ◦ Parasites and virus could live in food that is not properly cooked, and would enter their bodies when they ate it. • When cooking in an oven, the outside of the food gets hot first, and gradually the inside gets hot. • It is important to check the temperature of the centre of the meat – or the thickest part, because that will take the longest to reach the desired temperature. <p>Tell students they may be asked to check the temperature of meat cooking in the oven.</p> <ul style="list-style-type: none"> • If the thermometer is already in the meat, they should use oven gloves, to pull the rack out so they can read the thermometer. • If they must insert the thermometer, they should use oven gloves and remove the dish with the meat to a heatproof surface. • The thermometer should then be inserted at the thickest part, not touching any bone, large amount of fat, or the pan. <p>Show the students the meat thermometer. Look carefully at the scale.</p> <ul style="list-style-type: none"> • What do they notice that is different? (There are words naming different types of meat, and the “doneness” rare, medium, well.) • Use Teaching Aid: <i>Recommended Internal Cooking Temperature</i> and have students compare different meats and the temperature that they should be cooked to. <p>If possible heat something in the microwave, - a chicken thigh or leftover spaghetti, or some sort of meat dish - and insert the thermometer and note how the needle rises to indicate the internal temperature.</p> <p>Tell students that some ovens have built in meat thermometers; other places may use a digital “thermometer fork” which would be stuck in the meat and the temperature will be displayed like on a digital clock.</p>	

Safe Use of a Stove

- 1. Never touch a stove burner.**
- 2. Turn pot handles to the back of the stove.**
- 3. Stay near the stove while cooking. Don't leave pots cooking on the stove and go and do something else.**
- 4. Keep burners clean and free of oil or grease.**
- 5. Make sure stove is turned off after use.**
- 6. Keep a fire extinguisher nearby. Know how to use it.**

Setting Dials

Turning the dial sets the temperature of the burner.

OFF means there is no heat.

LOW (LO) means there is some heat. It will keep foods warm. **NEVER** touch a burner, even if it is on Low. It can still burn you.

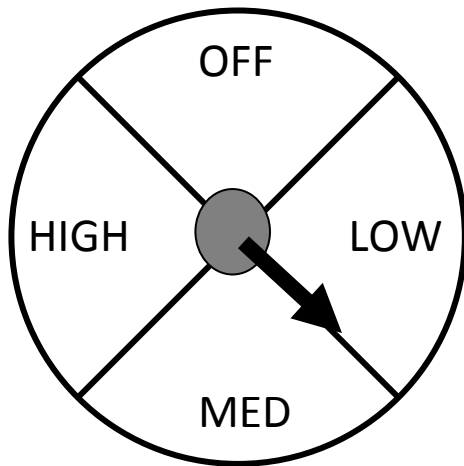
MEDIUM (MED) is the usual cooking heat for many foods.

HIGH (HI) is used to make water boil. It cooks food very fast. You must watch food to make sure it does not burn or boil over. You usually must stir the food so that it does not stick to the pot.

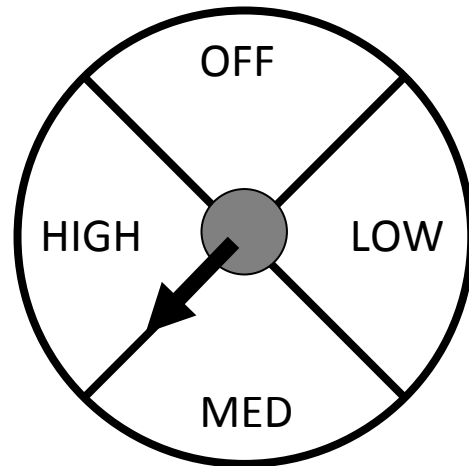
Medium-Low and Medium-High

Sometimes recipes call for cooking on medium-low heat or medium-high heat. The dials are set part way between Medium and Low, or between Medium and High.

Medium-Low



Medium-High



Cooking

You are going to cook some pasta.

- The chef tells you to turn on the back left burner to HIGH.
- Put a pot half-filled with water on the burner. Add a little salt. (1 teaspoon)
- Wait until the water boils.
- Add the pasta.
- Turn the burner down to MED-HIGH.
- While the pasta is cooking, the chef asks you to heat the pasta sauce on the back right burner.
- Put the sauce in a saucepan and place it safely on the burner.
- Turn the burner on to LOW.
- Stir the sauce occasionally.
- When the pasta is cooked, turn the burner to OFF.
- Carefully, remove the pot.
- Drain the pasta through a sieve.
- Serve the pasta with the warm sauce.

Compare the Scales – Celsius and Fahrenheit

This chart shows the comparable temperatures as they appear on a standard oven dial.

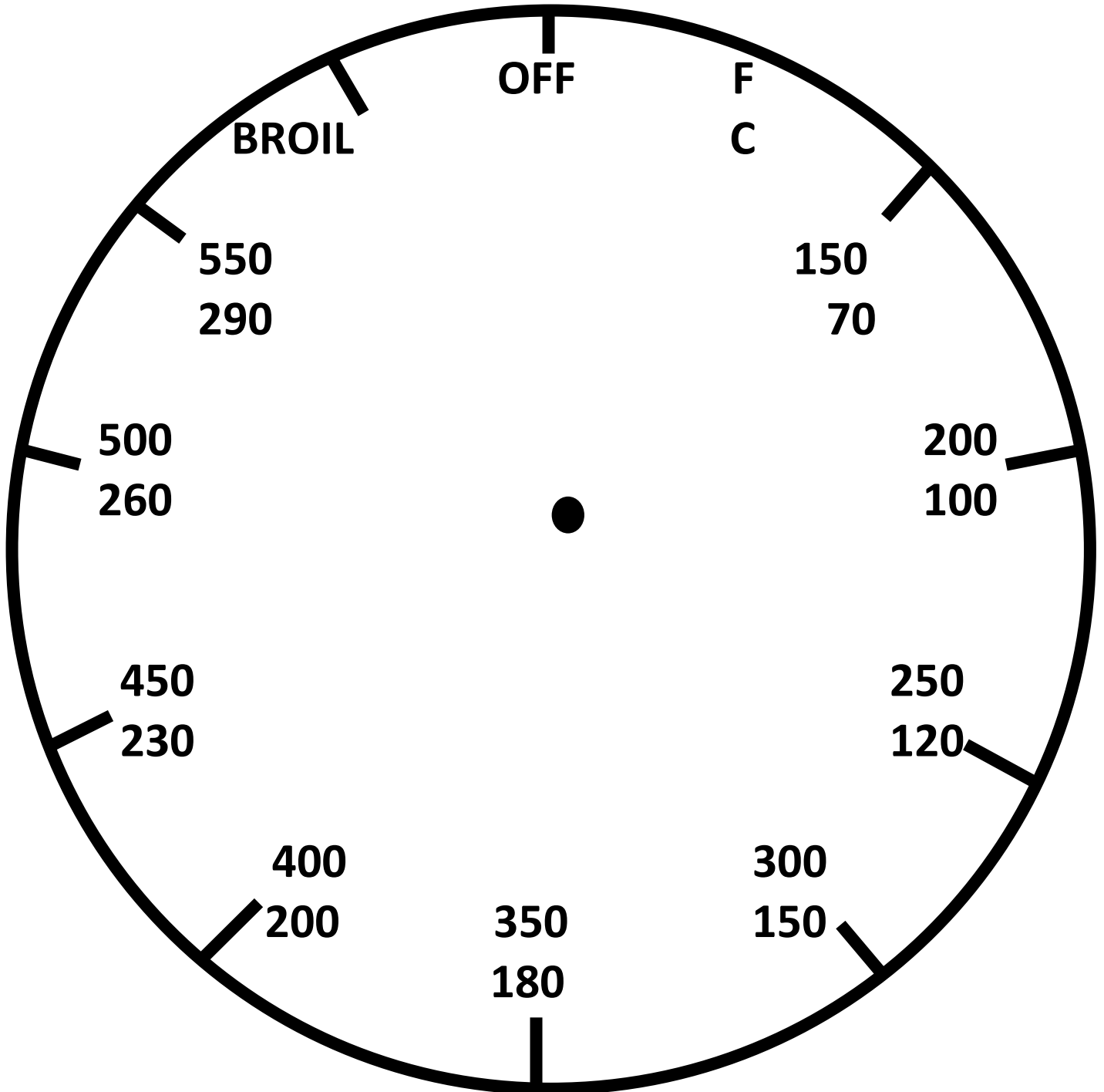
FAHRENHEIT	CELSIUS
150	70
200	100
250	120
300	150
350	180
400	200
450	230
500	260
550	290

THINK

Some recipes use temperatures that are not named on the dial; for example, 325°F.

That is half way between 300°F and 350°F. So it must also be halfway between 150°C and 180°C.

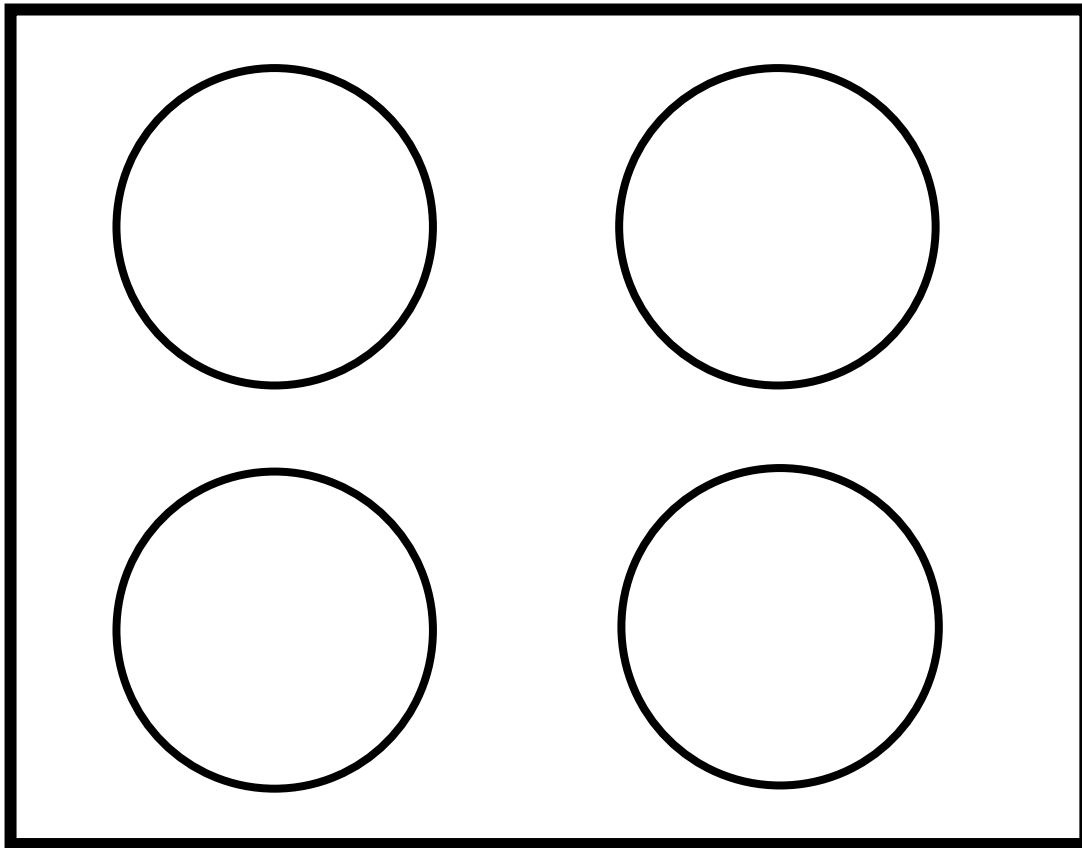
Oven Dial



Recommended Internal Cooking Temperature

SAFE COOKING TEMPERATURE CHART You can't tell by looking - - use a food thermometer to be sure!	
Food	Temperature
beef/veal steaks and roasts <ul style="list-style-type: none"> • medium-rare • medium • well done 	63°C (145°F) 71°C (160°F) 77°C (170°F)
ground beef/pork/veal <ul style="list-style-type: none"> • food made with ground beef/pork/veal, e.g. sausages, meatballs • pork chops, ribs, roasts 	71°C (160°F)
ground chicken/turkey <ul style="list-style-type: none"> • food made with ground chicken/turkey, e.g. sausages, meatballs • chicken/turkey breasts, legs, thighs and wings stuffing, casseroles, hot dogs, leftovers, egg dishes	74°C (165°F)
chicken/turkey, whole, unstuffed	85°C (185°F)

Stovetop



Colour the right, front burner red.

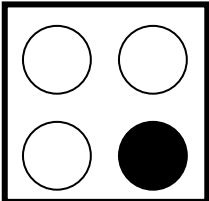
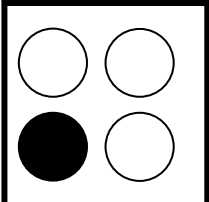
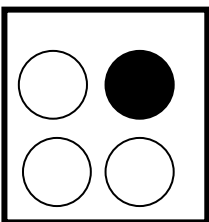
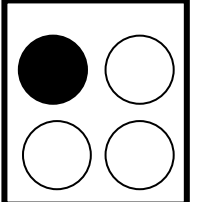
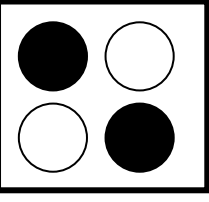
Colour the left, front burner blue.

Colour the right, back burner green.

Colour the left, back burner yellow.

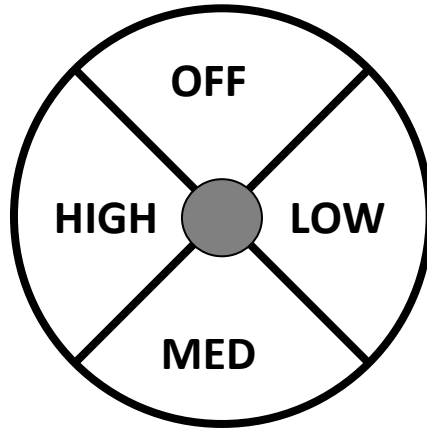
Burner Identification

What is the position of the shaded burner or burners?

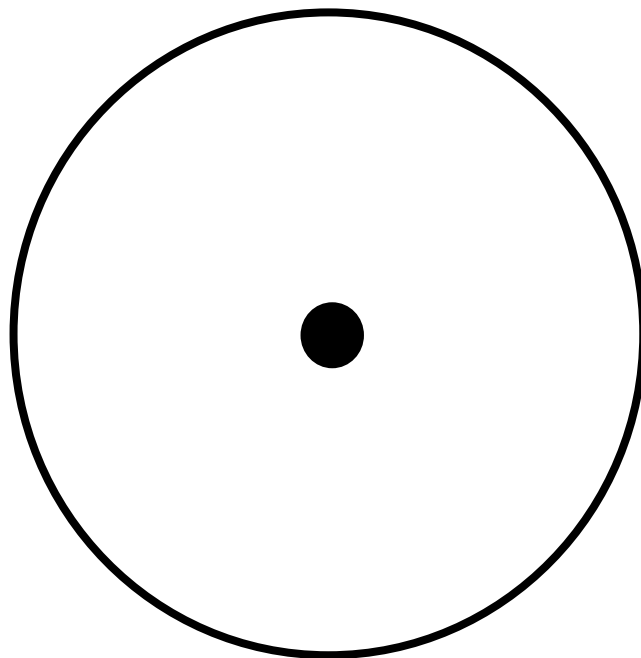
	Left or right?	Front or back?
	_____	_____
	_____	_____
	_____	_____
	_____	_____
	_____	_____

Label the Burner Dial

This is one kind of burner dial: OFF is at the top, LOW is on the right, MED is at the bottom, and HIGH is on the left.

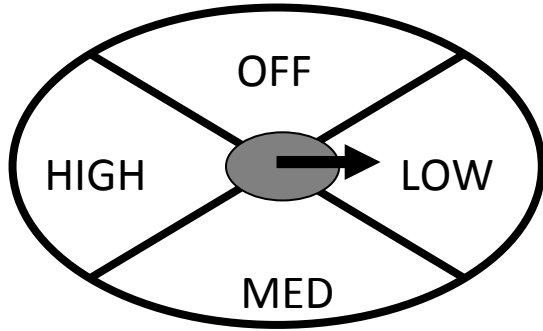


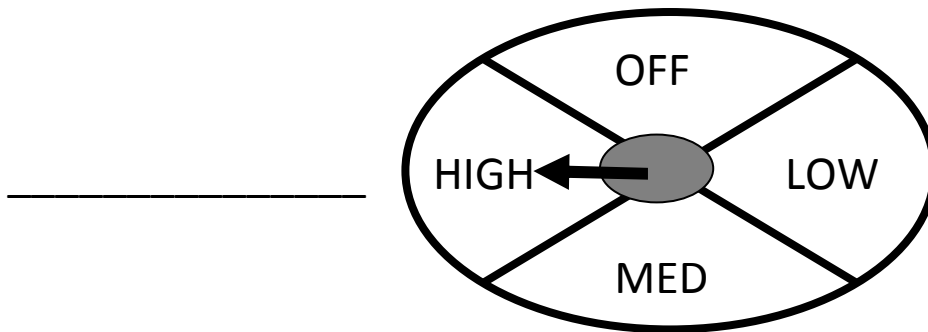
Label the burner dial to look like the one on the stove you are using. Compare the two dials. Are they the same or different?

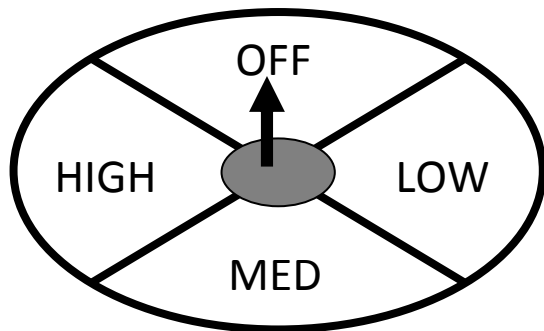


What's It Set At?

What is the dial set at on the following burner dials?







Order the Temperatures

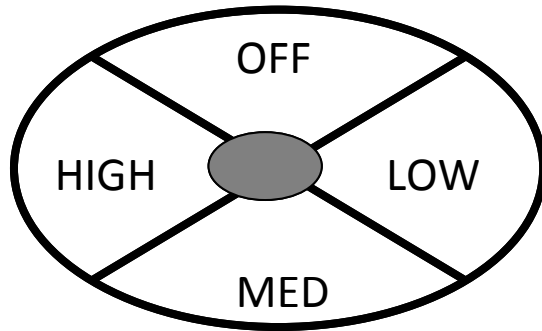
List these settings on a burner dial in order of heat. Start with the lowest and go to the highest.

- Medium-low
- High
- Off
- Low
- Medium high
- Medium

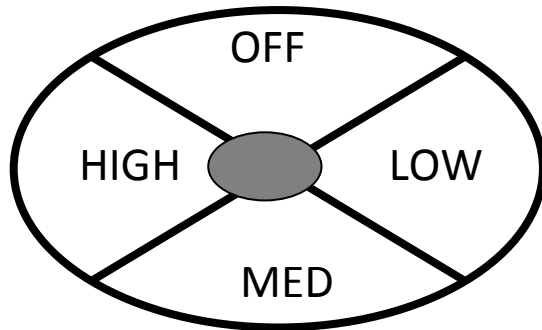
Cook Wisely

Set the dials according to the instructions:

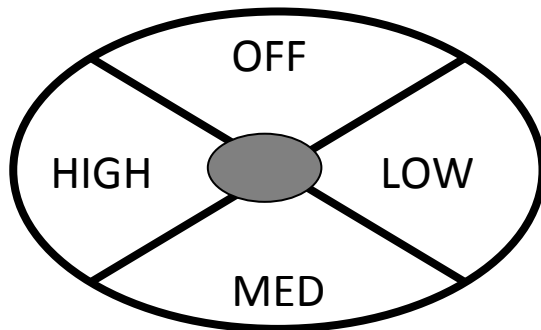
Set this dial to medium:



Set this dial to medium-high:



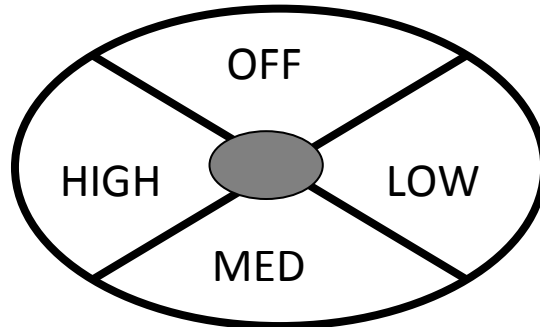
Set this dial to low:



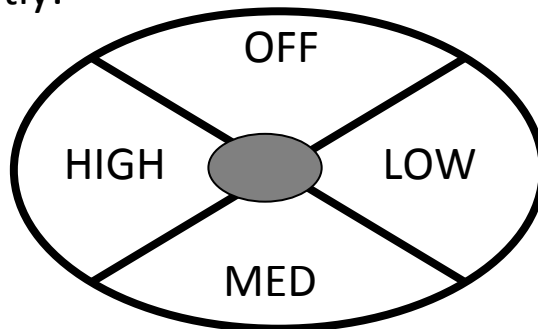
Cook Wisely, cont.

Set the dial to the best setting for the cooking. Explain to your instructor why you chose the setting.

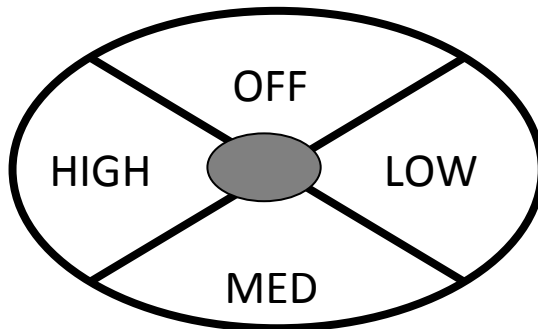
Boil water for pasta:



Simmer the sauce gently:



The pot of carrots has boiled. Now it needs to cook for about 10 minutes.



Temperature

Circle the correct temperature.

30°F or 70°F



0°C or 30°C



Temperature, cont.

45°F or 110°F



30°C or 85°C



Temperature, cont.

How hot is this coffee?



90°F or 190°F

How cold is the ice cream?



0°C or 30°C

Celsius and Fahrenheit

You are using recipes that give the oven temperature in Celsius, but your oven only displays Fahrenheit.

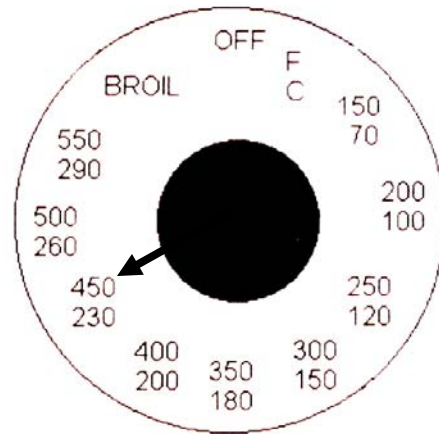
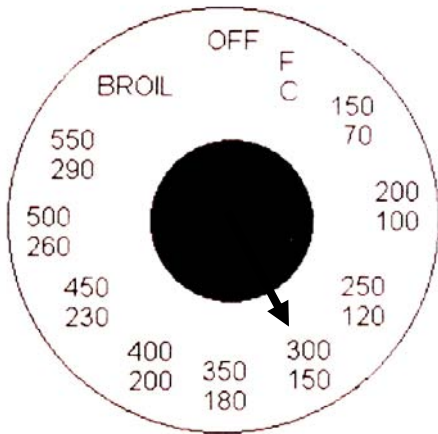
Use your cardboard oven dial, or the Celsius and Fahrenheit comparison chart to find what Fahrenheit temperature you will set the oven to.

Celsius	Set oven to °F
180	
230	
150	
200	

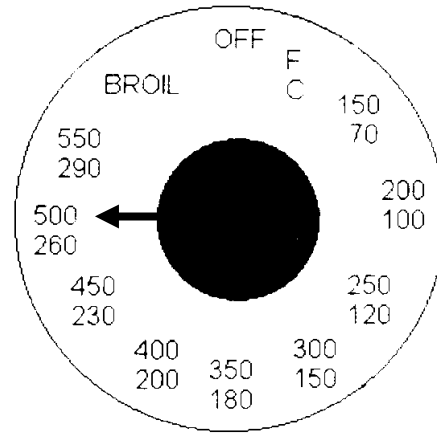
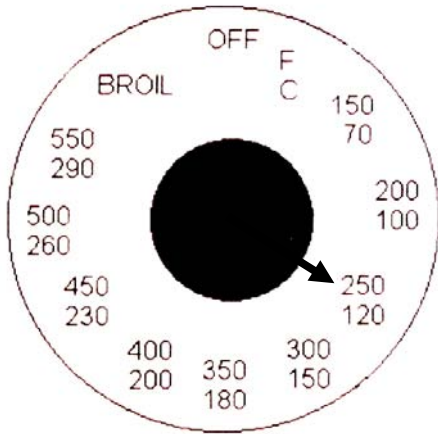
What Temperature?

Read each of the following dials and write the temperature.

Use °F.



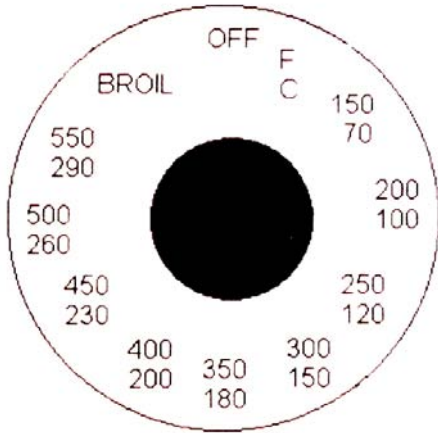
Use °C.



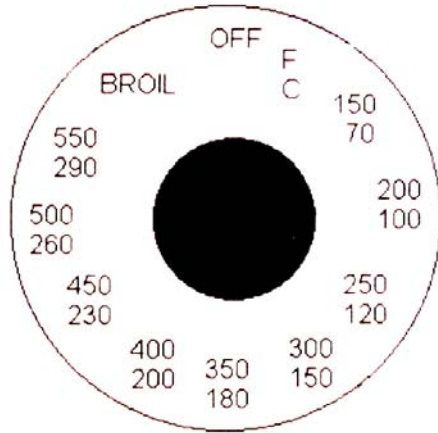
Setting Oven Dials

Set the dials to the given temperatures.

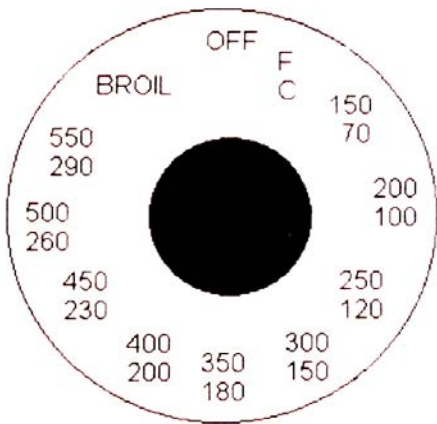
350°F



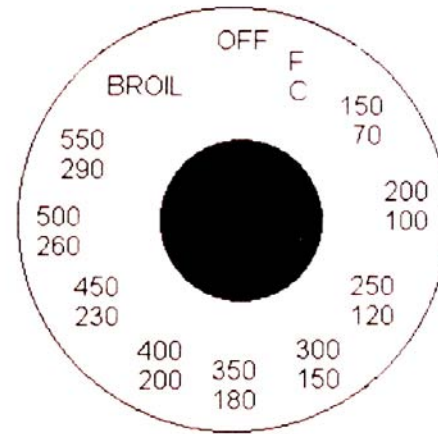
400°F



200°F

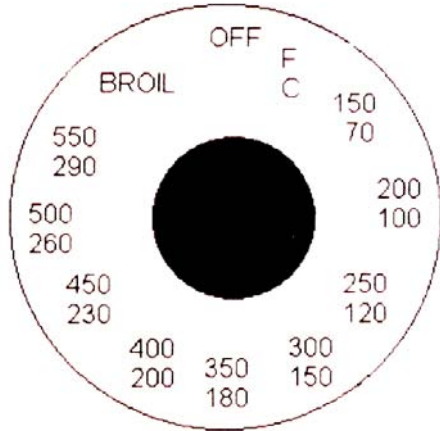


325°F

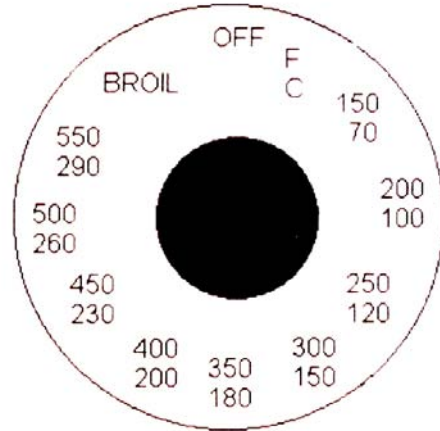


Setting Oven Dials, cont.

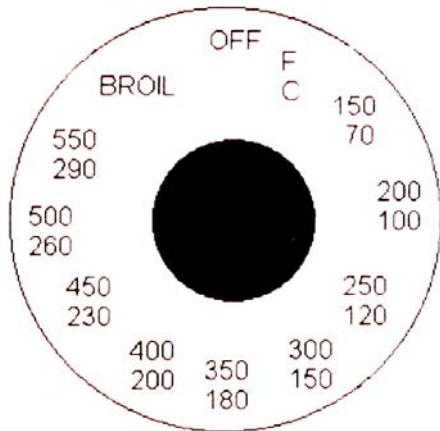
BROIL



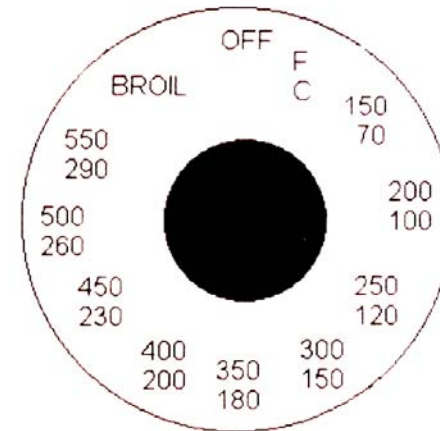
475°f



230°C



180°C



DEMONSTRATION INSTRUCTOR PAGE

Cook Up a Storm

ESSENTIAL SKILLS

- **Reading Text 1**
- **Document Use 1**
- **Numeracy**
 - Measurement & Calculation 1
- **Thinking Skills**
 - Problem Solving 1
 - Decision Making 2
 - Significant Use of Memory

DEMO DESCRIPTION

The student will perform a cooking task: preparing potatoes, filling a saucepan to a given level, setting burner temperatures and cleaning up. After that, the student will set the oven dial according to given instructions for cooking specific food items.

INSTRUCTOR NOTES

- Provide a saucepan, potatoes, potato peeler, knife, source of water, and salt.
- Provide something to cook in the oven if desired. (mini pizza?)
- Provide access to a stove.
- Provide *What I Have Learned and Skills Practised* to link the demonstration tasks with the Essential Skills.

With student

- Read Tasks aloud if necessary, DO NOT read the temperatures to be used in the oven or the settings to be used on the dials
- Remind students to practise good safety – for themselves and in handling the food.

ACHIEVEMENT INDICATORS

- Washed hands hygienically and handled food safely
 - Prepared potatoes for cooking
 - Filled pot to correct level
 - Set burner to given temperatures
 - Set oven temperatures
 - Practiced safety measures
 - Cleaned up
 - Assessed own performance
-

Cook Up a Storm

TASK 1

You are working in the kitchen of a restaurant. The cook has asked you to boil a pot of potatoes.

- Use safe food handling practices.
- Peel the potatoes.
- Cut the potatoes into 4 pieces.
- Fill the pot half-full with water, and add a little salt.
- Place potatoes in the water.
- Set the back left burner to medium-high.
- Put the pot with the potatoes safely on the burner.
- When the water starts to boil, turn the burner to medium.
- Clean up the work area while the potatoes are cooking.

Cook Up a Storm

TASK 2

You are working as a kitchen helper at a retirement home. At different times of the day, the chef asks you to pre-heat the oven for foods he is preparing.

Using the oven dial, or the cardboard dial, set the oven temperature. Your instructor will check each one.

- Cookies: Bake at 325°F.
- Scones: Bake at 425°F.
- Cheese casserole: Broil for 3 minutes.
- Veggie-melts: Bake at 180°C.
- Pizza: Bake at 230°C.
- Oven omelette: Bake at 300°F.

Cook Up a Storm

TASK 3

I CAN SET TEMPERATURES

I CAN	YES / DATE
I can read settings on a burner: off, low, medium-low, medium, medium-high, high.	
I know the order of burner temperatures from lowest to highest.	
I can set a burner to a given temperature.	
I can read the oven temperature in Celsius and in Fahrenheit.	
I can set an oven temperature.	
I can set the oven to Broil.	
I can use a stovetop safely.	
I can use an oven safely.	
I know how to ask for help.	

DEMONSTRATION ASSESSMENT

Cook Up a Storm

Student: _____

Instructor: _____

Date: _____

Total Time for Demonstration: _____

Help Given? Yes No
Details: _____

Accommodations?: Yes No
Details: _____

ESSENTIAL SKILLS:

- **Reading Text 1**
- **Document Use 1**
- **Numeracy**
 - Measurement & Calculation 1
- **Thinking Skills**
 - Problem Solving 1
 - Decision Making 2
 - Significant Use of Memory

ACHIEVEMENT INDICATORS	BEGINNING	DEVELOPING	ACCOMPLISHED
• Washed hands hygienically and handled food safely			
• Prepared potatoes for cooking			
• Filled pot to correct level			
• Set burner to given temperatures			
• Set oven temperatures			
• Practiced safety measures			
• Cleaned up			
• Assessed own performance			

ADDITIONAL COMMENTS