

Topic	Using a Bunsen burner	Level	Key Stage 3 (or any course for students aged 11-14)
Outcomes	To set-up and use a Bunsen burner safely in the lab, including using a splint to light it.		
Information for teachers	This activity is a great way to make sure that students are clear on exactly what great practice looks like when using a Bunsen burner. It should be used after you have taught students how to use a Bunsen burner. Students work in pairs. One student is taking the test and the other is the examiner. The examiner asks the student to complete a series of tasks listed in the table. Once the test is over the roles are switched.		

Bunsen Burner Driving Test

You are going to work with your partner to see if they have passed their Bunsen burner driving test!

One student is the examiner and one student is taking the test. Have a look at the table on the next page. The examiner will ask the student to carry out each task and will tick off each marking point and complete the feedback box. You need all marking points correct to pass the task.

The student taking the test will not be able to see the marking points. Once the test is complete, give the feedback sheet to your partner so that they can see how they did. You will now swap roles.

You can do a re-test if there is enough time.

Name of examiner: _____

Name of student taking the test: _____

Number of tasks passed: _____ /7

Marks scored

1-3 – You're a danger! We should call the fire brigade.

4-5 – Getting there – have another go!

6-7 – You're an expert. Mr Bunsen salutes you!

Feedback sheet

	Description of task - the examiner reads this task out	Marking points	Pass or Fail?
1	Prepare yourself for using a Bunsen burner safely.	<ul style="list-style-type: none"> ○ Clear workspace and stools tucked under desks. ○ Hair tied back. Goggles on. ○ Any loose clothing tucked in e.g. ties tucked into shirts. ○ Bags under desks. 	
2	Collect a Bunsen burner, splint and heatproof mat.	<ul style="list-style-type: none"> ○ The equipment is collected and carried calmly. ○ The correct equipment is collected. 	
3	Show me the: collar, air-hole, barrel and gas tap. What checks will you carry out now to make sure your Bunsen burner will work?	<ul style="list-style-type: none"> ○ Parts named correctly. ○ Checks tubing is not cracked. ○ Checks collar moves. ○ Checks barrel is clear. 	
4	Set-up the Bunsen burner on a heatproof mat, ready to be lit.	<ul style="list-style-type: none"> ○ Bunsen burner is placed on centre of the heatproof mat. ○ The air hole is closed. ○ Rubber tubing is connected to gas tap and is not twisted. 	
5	Light the Bunsen burner using a splint.	<ul style="list-style-type: none"> ○ The student lights a splint using the Bunsen burner on the teacher's desk. ○ The splint is carried calmly and safely back to the student desk, using a hand to shield the flame. ○ The air hole is closed. ○ The gas is quickly turned on. ○ The lit splint is placed on the heatproof mat to put it out. It is not blown out or dabbed out! 	
6	Change the safety flame to the blue heating flame.	<ul style="list-style-type: none"> ○ The student moves the collar to open the air hole. 	
7	Turn off your Bunsen burner and pack the equipment away.	<ul style="list-style-type: none"> ○ The air hole is closed and then the gas tap is switched off. ○ Time is given to allow the Bunsen burner to cool down. ○ The splint is put in the sand bucket. ○ Equipment is returned to the correct location. 	

Progress: further resources on working scientifically are available here:

<http://thescienceteacher.co.uk/how-science-works/>

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