

The Power of Steam! Materials all change at the Railway

STUDENT INTRODUCTION

- ▶ Materials such as coal and water change extensively from one state to another when used in steam locomotives
- ▶ Can you work out the processes by which these materials change and why this important to the railway?

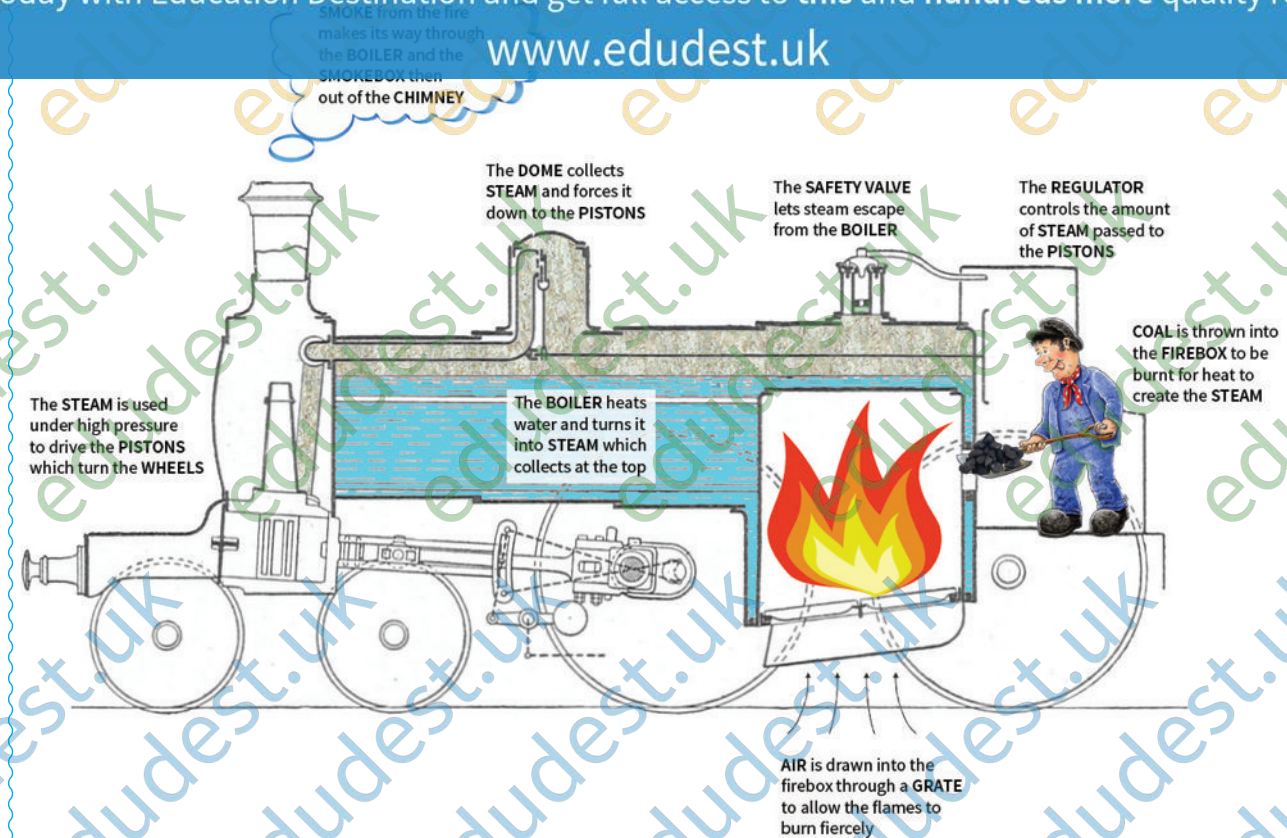


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Can you answer the following questions on materials? Use the diagram and written information to help you, as well as looking around the station platform area.

1. What materials are shown to be changing in the diagram?
2. It is very important that the stoker (sometimes called the fireman) or driver continues to shovel the coal. What would happen if he didn't?



3. What does the water change into and how?

4. What does the coal change into and how?

5. Why are these processes important?

6. What is the purpose of the 'dome'?

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8. Why is the 'safety valve' so crucial?

9. What is the 'steam' used for?

10. What device do the railway staff use to fill the tank up with water? Where on the platform can you see this?

11. What do you think would happen to the engine if it ran out of water?

12. What mechanical devices turn the wheels using the steam energy?

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