# Causes of accidents in the Mines

### Source A:

Extract from a tract (short piece of writing) on mining by Joshua Richardson, 1848

The accidents which occur in mines may be classes under five different heads, viz:-

### FIRST.

From explosions of "fire-damp" or carburetted hydrogen gas, and the prevalence of "choke damp" of or carbonic acid gas.

### SECOND.

From coal or stones falling from the roof

### THIRD

From men falling down, and coal or stones falling on them, whilst descending or ascending the shafts

### **FOURTH**

From inundations [flooding] from old works or other adjacent waters

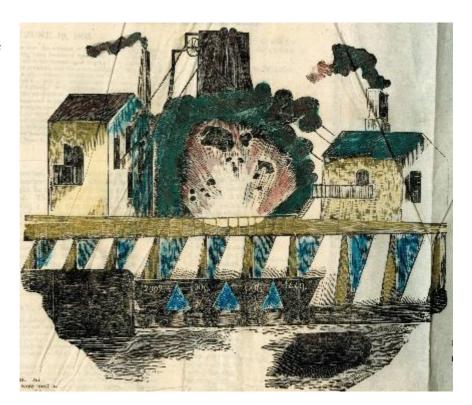
### **FIFTH**

From miscellaneous causes

Source from: On the Prevention of Accidents in mines by Joshua Richardson, 1848 p.25 in Tracts on Mining 19th Century Collection 622.09428 TRA5, Newcastle University Special Collections, GB 186.

### Source B:

An artist's representation of an explosion in a mine



Source from: Pitman's Papers Vol. II, Rare Books, RB622.08 WILL, Newcastle University Special Collections, GB 186



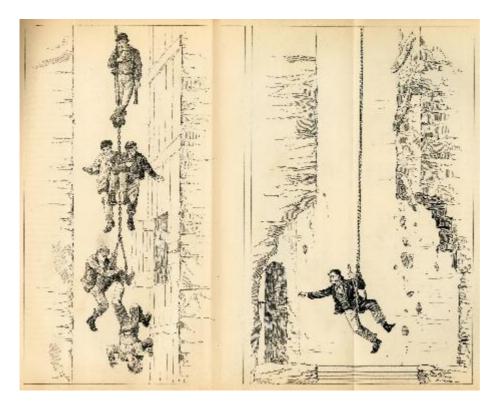


# Source C: Extract from An essay on Fire and Choke Damps in Coal and Other Mines by Daniel Nield, 1810

These men [coal miners] are at all times more exposed to danger than to most other classes of scoiety, in consequence of their descending and ascending the shafts of the pit and from the roofs sometimes falling suddenly upon them. Human precaution is not at all times suffcient to guard against these accidents. The deaths which results fom these accidents are however excedingly few, when compared with those which are caused by what is generally called the fire and choke damp more especially the former, which has frequently seen the cause of the deaths of thirty or forty miners at one single explosion, to say nothing of those who have been burned in the most dreadfulmanner.

Source from: Extract from An Essay on Fire and Choke Damps in Coal and Other Mines by Daniel Nield, 1810, p.10 in Mining and Coal Trade Papers, RB 622.08 MIN, Newcastle University Special Collections, GB 186.

# Source D: An illustration of miners being lowered down or raised up a mineshaft, 1868



Source from: A Treatise on the ventilation of coal mines RB 942 8 TYN, Newcastle University Special Collections, GB 186.





### Source E:

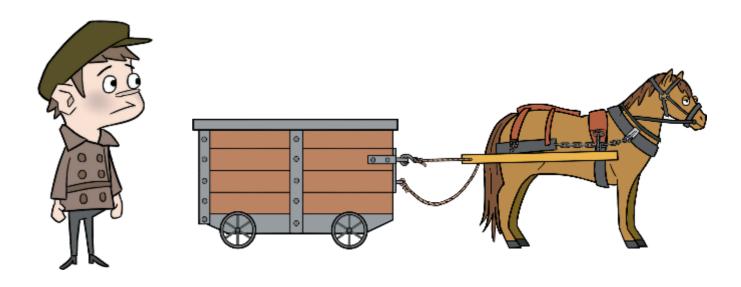
An extract from an account of a mining disaster which took place at Heaton Main Colliery, Newcastle Upon Tyne, in 1815

### INUNDATION OF HEATON COLLIERY.

May 3rd, 1815, a dreadful accident took place in Heaton Main Colliery, near Newcastle-upon-Tyne. The workings of the colliery at this time were in the Main coal seam, at a very great depth, having a considerable dip, or inclination, from one side to the other, the shafts being on the lower side. This seam had formerly been wrought as a colliery, under the name of Heaton Banks, by shafts distinct from the present workings, and which shafts, when the colliery was given up, were covered over with planks and earth. In the course of time these old workings had become entirely filled with water, which, at about half-past four o'clock on the morning of the above day (Wodnesday) broke through the coal in the north-west part of the present colliery, at a point where the strata are disturbed by a dyke, and inundated the workings. Some of the men who were working near the spot where the water forced its entrance, ran immediately to the shaft, and happily escaped out of the pit. On their way they met Mr. Miller, the underviewer, and informed him of what had happened, when he ran to give the alarm to the other men, who were working in the higher part of the pit, in the hope that they might be able to effect their escape also; but this, alas! was not accomplished. The water rushed in with dreadful rapidity, and flowing naturally to the lower parts of the workings, soon cut off the

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Source from: A Letter from the dead to the living, or, The collier boy and his mother: being an account of the dreadful inundation of Heaton Colliery, on May 3rd, 1815, by which forty-one men and thirty-four boys lost their lives, Clarke 1853, Newcastle University Special Collections, GB 186







# **Activities**

Study Source A.	Study Sources A, C and D.
List four causes of accidents in the coal mines in the nineteenth century.	4) List two types of accidents which sometimes occurred when miners were being lowered down or raised up from the mine shafts?
2.	1.
3.	2.
4.	
	Study Sources A and E.
Study Sources A and B.	5) What caused the accident that took place at Heaton Main Colliery in 1815?
2) According to Source A, what usually caused explosions in coal mines such as the one pictured in source B?	
Study Source C.	<b>5</b> 0
3) According to Source C, what were two frequent consequences of fire-damp explosions?	
1.	
2.	



