

VISITOR Lesson Plan template

Title of Lesson

The Steam Locomotive

Background *(What museum artefact are you using for your lesson ? What curriculum areas does your lesson address, (eg History, Science, Language, etc.) ? What age range is your lesson suitable for ? What pre and post activities do you envisage? How will the work be assessed ?)*

Stephenson's rocket
Design and Technology/History
Students aged 6-12

This lesson will be part of a greater chapter on the industrial revolution.

Learning Objectives *(What are the learning objectives addressed referenced to your own national curriculum ?)*

The idea is to help the students understand the functioning of a steam engine as a key factor of the industrial revolution. Indeed, this era started thanks to this innovation which was quickly outdated due to the rapidity of the evolution of industrial practices.

Lesson Starter *(First 15 minutes : How will you begin the lesson in an engaging way ?)*

Start by asking the students if they know what a steam locomotive is and then define what a steam engine and a steam locomotive are. Then show a video about the steam locomotive functioning :

https://youtu.be/UKiMMa0Z_7w (2:14)

<https://youtu.be/3wYnMaahePg> (first 4 mins 30)

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Main Activity (30 minutes : What is the task children need to do ? How are the children organized -pairs, groups, etc.? How is the work differentiated? What extension activity is there ?)

Give a quick history of Stephenson's rocket :

Designed by Robert Stephenson and made by Robert Stephenson & Co., Newcastle upon Tyne, England, 1829.

Stephenson's Rocket represented a substantial technical advance over previous designs, bringing together in one machine such developments as the multi-tube boiler and the blast-pipe. The speed of progress, however, meant that the Rocket was substantially rebuilt within 18 months and laid aside within 10 years.

Put the pupils in pairs to complete the crossword activity (see below).

Plenary (10 minutes : How will the children share what they have learned ? How will you link back to the Learning Objectives ? How will you link to the next lesson ?)

Discuss the crossword with the whole class with the students giving out their answers. If some pupils still haven't understood the functioning of the steam locomotive, ask other pupils to explain with their own words.

Resources (What is needed to run this lesson (eg PowerPoints, Worksheets, Ipads, Internet access, Video Projection, Interactive whiteboard, etc.) ? Attach example documents and jpeg of artefact.)

Internet access, video projection, photocopies, white board to write down correction of crossword answers.

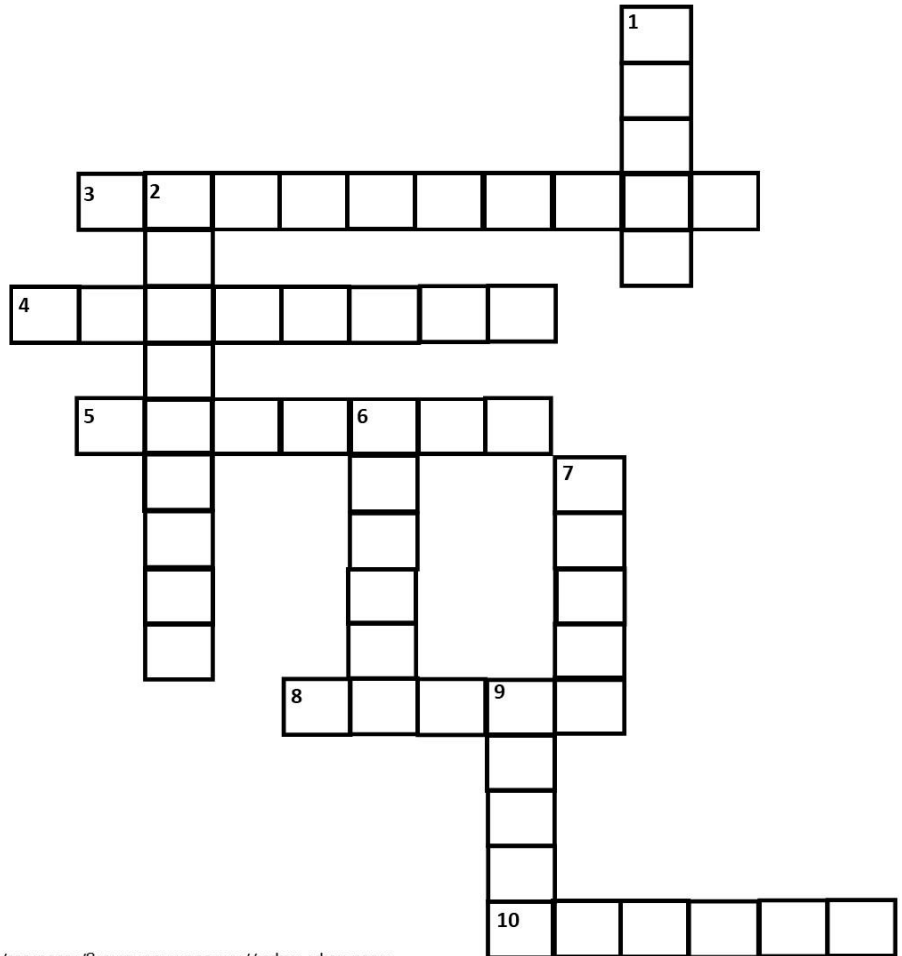
STEAM TRAIN CROSSWORD PUZZLE

ACROSS

- 3 - The chimney of a locomotive.
- 4 - The chamber of a steam-engine in which the force of steam is utilized upon the piston.
- 5 - Where the fire is made in a steam locomotive.
- 8 - The inclination from the horizontal of a portion of a road or railroad. It is expressed in degrees, in feet per mile, or other distance.
- 10 - A car attached to a steam locomotive for carrying fuel or water.

DOWN

- 1 - An influence on a body or system, producing a change in movement or in shape or other like effect.
- 2 - A steam-boiler having a large number of moderate-sized or small flues, as that of a locomotive.
- 6 - A closed vessel in which water is heated.
- 7 - An apparatus or attachment for indicating the pressure of steam in a boiler.
- 9 - The current of air which supplies a fire. Also, the course or direction of the hot air and smoke.



Need help? <https://railroad.lindahall.org/resources/what-was-what.htm>