

## How were the roads built, and by whom? (Key)

You will use four sources to answer the questions.

Featured Source A: Excerpts from *De Architecture, Book VII* by Marcus Vitruvius Pollio

1. Paragraph 1 describes the bottom layer of a Roman road. What was it made of?

*The bottom layer was made of larger stones of rock.*

2. Paragraph 3 describes the second, third, and fourth layers. What were they made of?

Second layer - *The second layer was made of smaller stones and lime.*

Third layer - *The third layer was made of clay and lime.*

Fourth layer - *The fourth layer (if present) was made of stone slabs or tiles.*

3. What does paragraph 4 say about how the tiles in the fourth (top) layer should be finished?

*The tiles should be laid with the proper slope, but then the edges had to be rubbed off so there would be no rising edges. They needed to be perfectly smooth with no hollows nor ridges.*

Featured Source B: A diagram of a cross section of a Roman Road found at:  
[https://commons.wikimedia.org/wiki/File:Cross\\_sectional\\_diagram\\_of\\_an\\_idealized\\_Roman\\_road\\_found\\_in\\_Britain.png](https://commons.wikimedia.org/wiki/File:Cross_sectional_diagram_of_an_idealized_Roman_road_found_in_Britain.png)

4. Give the name of each layer and tell what makes up the four layers on the diagram, starting with the bottom layer and going up.

1st (bottom) layer: *Statumen - Large stones*

2nd layer: *Rudus - Broken stones and pebbles*

3rd layer: *Nucleus - Cemented or compacted sand, clay, gravel, or chalk*

4th layer (if present): *Summum Dorsum - Stone slabs*

5. Do these four layers match the four layers described in Featured Source A?

*Yes, they do.*

Featured Source C: A website describing how Roman roads were built and is found at: <https://www.geotech.hr/en/ancient-roman-roads-a-monument-to-history-and-road-construction/#:~:text=The%20vast%20Roman%20Empire%20boasted,the%20empire%20and%20its%20expansion>

6. Approximately how long was the whole network of Roman roads?

*Over 400,000 kilometers*

7. How many kilometers of the roads were paved? Can you calculate what percent of the road system that would be?

*Over 80,500 kilometers, so about 20% of the road system was paved*

8. Who were the builders of the roads?

*The roads were mainly built by the Roman legionnaires (soldiers).*

*Engineers were members of the army.*

9. Look at Figure 2, the illustration of a cross section of a Roman road. Do the names of the four layers agree with what you learned from Featured Source B?

*Yes, they do agree.*

Featured Source D: A website that contains a video about how the Roman roads were built and is found at: <https://www.calzadaromanadelpirineo.eus/en/roman-roads/> . Watch the video and answer these questions.

10. First, what had to be cleared away before a Roman road could be built?

*Forests were cleared*

11. List all of the natural and human resources that building a road required.

*Rock of various sizes, lime, clay, stone slabs or tiles, manpower, time spent planning and building*

Performance Task:

Write a paragraph that tells the following: Who the builders of the roads were, what each layer was called, and what resources/costs would have been required to build the roads.

*The Roman roads were mainly built by the Roman soldiers. The roads were made up of four layers. The bottom layer was called the statumen, and was made up of large stones. The next layer was called rudus, and was smaller or broken stones and pebbles. The third layer was called nucleus, and was cemented or compacted sand, clay, gravel, or chalk. The final layer (if present) was called summum dorsum, and was made of stone slabs that were sanded smooth. All of these layers required an abundance of natural and human resources. The natural resources were: rock of various sizes, lime, clay, and stone slabs or tiles. The human resources were: an enormous amount of manpower and time spent planning and building.*