

### WHAT DO I GAIN (AND LOSE) ...

### by exceeding the speed limit?

The Highway Code specifies the maximum speeds authorised for the roads we drive on. These speeds are sometimes reduced temporarily, for roadworks, or permanently, to combat pollution or reduce the risk of accidents. Some motorists take a dim view of these speed reductions, believing that they cost them time on their journeys.

On the other hand, some people think that it's no big deal to exceed these maximum speeds, given the time saved on their journey.

In addition to the legal answer, it may be interesting to calculate more precisely how much time a motorist loses or gains on a given journey as a result of its speed.

### Overview "What do I gain by exceeding the speed limit?"

How much time do I

Context

really save by exceeding the speed limit?

Everyday life

Target group (incl. necessary prior skills and competences)

Adults who know how to calculate speed (see "Which is the fastest?)

Content Number Relationship

**Outcomes and results** 

Mastering the distance/time ratio Compare speeds

Cognitive processes **Processing information** Reasoning **Problem solving** Critical thinking

Dispositions Self-confidence Motivation Positive (self-)beliefs





## Main information

Content	Number and relationship	
Target group	All learners who already have the mathematical basis for the concept of speed	
Learning intention	Numeracy for personal issues	
Duration	1 lesson	
Material and resources	Road legislation applied in the country	
Group size	5 to 12 learners	
Problem statement	To determine whether it is really worth taking risks by exceeding the speed limit, it is necessary to be able to calculate whether the time saved is really significant.	
Working questions	In different situations (city traffic, motorway, etc.), calculate the difference in journey times depending on the speed adopted.	
Learning outcomes and results	<ul><li>Mastering the distance/time ratio</li><li>Comparing speeds</li></ul>	
Reference to National Qualification Frame	Optional (country's decision)	



## Working plan

Time (lessons)	Description of content/activities	Material	Methodical and didactic information <sup>1</sup>
15'	Introduction  The teacher introduces the topic of the day by projecting the images in Appendix 1.  What do they evoke in the learners?  What are the maximum authorised speeds in France?  When are these speeds reduced?  Have they ever discussed this question with other people?	Appendix 1	Questioning Discussing
25'	To avoid any misunderstanding of the objective of this session, the trainer will present the current regulations on speeding.  The teacher checks that the table has been correctly understood, and can also ask the learners why there is a difference in treatment between urban traffic and road traffic, or how many points you have on your driving licence.	Appendix 2	Questioning Discussing
25′	So the question is, how long does it take me to cover the same distance at different speeds?  The first situation is dealt with collectively, with the teacher explaining, if necessary, how to calculate a journey time as a function of distance and speed.  Each learner then carries out the calculations individually, depending on the situations proposed.  The trainer checks with each person to make sure they understand the	Appendix 3	Explicit teaching Individual

<sup>&</sup>lt;sup>1</sup> for description and explanation of kinds of tasks, HITs and other background information please consult the teacher's/user's guide





	calculation method.	
25'	The results are taken as a group.  The trainer asks the question again: in the end, is it worth taking risks by exceeding the speed limit?  In addition to the penalties incurred, it also emphasises the increased risk of accidents for the driver and other road users, particularly in city traffic.  Given the minimal time savings, and the benefit/risk balance, the answer is now clear: it's not worth the risk!	Collaborative learning Discussing



### Appendix 1



OpenClipart-Vectors / Pixabay



Mohamed Hassan / Pixabay





https://www.challenges.fr/automobile/actu-auto/50-km-h-sur-le-peripherique-parisien-cette-mesure-anti-bagnole-d-hidalgo-a-l-efficacite-discutable 875216



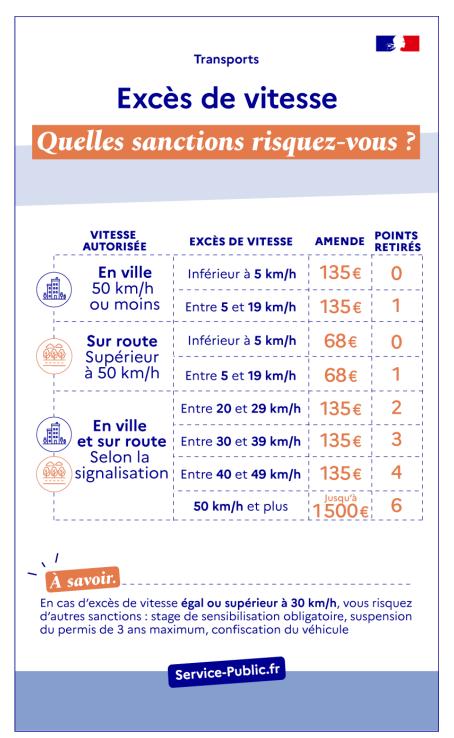
<u>Darren Cottingham</u> / <u>Pixabay</u>





#### Appendix 2

To be adapted according to the country's situation



Direction de l'information légale et administrative



#### Appendix 3

#### Situation 1

From Lyon to Grenoble, the route covers 95 kilometres of motorway.

- Driving at the maximum authorised speed of 130 km/h, how long will it take me to cover this distance?
- At 140 km/h, what would that time be? How much time would you save?
- What would be the penalty??

#### Situation 2

I'm driving on a road with an 80 km/h speed limit, for a journey of 50 km.

- Journey time at maximum authorised speed:
- Journey time at 110 km/h:
- Time saving:
- Penalty incurred:

#### Situation 3

My route includes 85 km on a road limited to 90 km/h, and 20 km of village crossings limited to 50 km/h.

- Journey time at maximum authorised speed:
- Journey time at 70 km/h for village crossings:
- Time saving:
- Penalty incurred:

#### Situation 4

I'm travelling in the city, for a 5 km journey in a 30 km/h zone.

- Journey time at maximum authorised speed:
- Journey time at 50 km/h:
- Time saving:
- Penalty incurred:

