## 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 in particular, 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?"



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

## Working plan

| Time (lessons) | Description of content/activities | Material | Methodical and didactic information ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
| $15^{\prime}$ | Introduction <br> The teacher introduces the topic of the day by projecting the images in Appendix 1. <br> What do they evoke in the learners? What are the maximum authorised speeds in France? <br> When are these speeds reduced? Have they ever discussed this question with other people? | Appendix 1 | Questioning Discussing |
| $25^{\prime}$ | To avoid any misunderstanding of the objective of this session, the trainer will present the current regulations on speeding. <br> 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 |
| $25^{\prime}$ | So the question is, how long does it take me to cover the same distance at different speeds? <br> 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. <br> Each learner then carries out the calculations individually, depending on the situations proposed. | Appendix 3 | Explicit teaching <br> Individual |

[^0]Numeracy in practice

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

## Appendix 1



OpenClipart-Vectors / Pixabay


Mohamed Hassan / Pixabay

LES PRIX DE L'IMMOBILIER FORTUNES GRANDESÉCOLES ESPACE DÉBAT E-BUSINESS FUTUR

Challenges > AUTOMOBILE > ACTU AUTO
Actu auto

## $50 \mathrm{~km} / \mathrm{h}$ sur le périphérique parisien : cette mesure "anti-bagnole" d'Hidalgo à l'efficacité discutable

Par Nicolas Meunier le 24.11.2023 à 16h00, mis à jour le 11.01.2024 à 16 h 00

## (10) Ecouter 5 min .

EDITORIAL - Anne Hidalgo a annoncé la baisse de la limitation de vitesse à $50 \mathrm{~km} / \mathrm{h}$ à partir de septembre 2024. Cette mesure s'inscrit dans la politique de la Mairie de Paris de s'opposer au maximum à la circulation automobile... les arguments de sécurité et d'écologie avancés ne sont pas tous convaincants. Décryptage.


NEWSLETTER CHALLENGES $\qquad$
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


Darren Cottingham / Pixabay

## 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 $130 \mathrm{~km} / \mathrm{h}$, how long will it take me to cover this distance?
- At 140 kph , 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 $80 \mathrm{~km} / \mathrm{h}$ speed limit, for a journey of 50 km .

- Journey time at maximum authorised speed:
- Journey time at $110 \mathrm{~km} / \mathrm{h}$ :
- Time saving:
- Penalty incurred:


## Situation 3

My route includes 85 km on a road limited to $90 \mathrm{~km} / \mathrm{h}$, and 20 km of village crossings limited to 50 km/h.

- Journey time at maximum authorised speed:
- Journey time at $70 \mathrm{~km} / \mathrm{h}$ for village crossings:
- Time saving:
- Penalty incurred:


## Situation 4

I'm travelling in the city, for a 5 km journey in a $30 \mathrm{~km} / \mathrm{h}$ zone.

- Journey time at maximum authorised speed:
- Journey time at $50 \mathrm{~km} / \mathrm{h}$ :
- Time saving:
- Penalty incurred:


[^0]:    ${ }^{1}$ for description and explanation of kinds of tasks, HITs and other background information please consult the teachers' guide

