

ENJOY PUBLIC TRANSPORTATION

Which ticket should I buy?

We come across it again and again in our everyday life – some of us deal with this topic every day when going to class or to work: It is the topic of buying tickets.

For some of us public transport it its costs are rather new territory. For some of us this situation is so familiar that we don't even think about it, but we have to keep in mind that numeracy is relevant here because it helps us make smart decisions and use our money effectively. We need to compare different tickets, calculate prices, determine savings, and find the best deal. These numeracy skills will not only help you save money, but also improve our logical thinking and problem-solving skills. Let's dive into the world of ticket buying together and discover how math can help us make informed decisions and get the most out of our money.

Overview “WHICH TICKET SHOULD I BUY?”

What kind of ticket best fits my personal daily structure?

Context
Everyday life
Finances

Cognitive processes
managing situations
analysing situations
reasoning
problem solving
critical thinking

Content
quantity and number
pattern, relationship and
change
using digital skills
using spreadsheets

Target group (incl. necessary prior skills and competences)

Adults with basic arithmetic (and digital) skills

Adults willing to reflect their everyday life behaviour

Outcomes and results

Learners are aware of different ticket options and selectively buy the most appropriate ticket for them.

Learners use digital skills to buy tickets.

Dispositions
self-confidence
collaboration
flexibility
math difficulties



Main information

Content	natural numbers decimal numbers addition, subtraction and multiplication comparison of numbers using (basic) digital skills to research costs of tickets using spreadsheets
Target group	Adults with basic arithmetic (and digital) skills Adults willing to reflect their everyday life behaviour with regards to using public transport
Learning intention	Numeracy skills for practical and personal purposes in daily life
Duration	3 to 4 lessons
Material and resources	PC and internet spreadsheet information on (special) ticket offers
Group size	About 10 learners
Problem statement	When using public transportation, it can be difficult to choose the right ticket because there are many different options.
Working questions	What are the key points to consider when making a ticket purchase decision? How and where do I get the information on costs? What does public transport mean to me and society?
Learning outcomes and results	Students do purchase decisions based on the comparison of calculated prices. Students know how to use ticket vending machines. Students do (digital) research on the route and price for a trip according to a given situation. Students recognize the impact of a concrete situation of use for their purchase decisions. Students reflect their personal use of public transport as well as its positive and negative aspects (for them personally and in a social context). Students transfer skills to personal and private life.



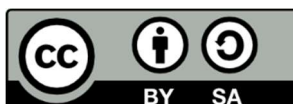
Working plan

Time (lessons)	Description of content/activities ¹	Material	Methodical and didactic information ²
50 minutes	<p>Real-life situation and linguistic pre-relief (if necessary) Walk the students to a nearby bus or train station and analyse together with them the surroundings: where can tickets be bought (with focus on ticket vending machines and their handling), how to orientate oneself in a station, understand loudspeaker announcements, instruction and warning signs, how to read a schedule ...</p> <p>The teacher can take a more passive role if there are learners who are very familiar with public transport and buying tickets for their daily use.</p>		<p>putting learners in a mathematical situation</p> <p>differentiated teaching</p> <p>working with experiences and knowledge of the learners who are used to using public transport</p>
15 minutes	<p>Introduction and cognitive activation The teacher leads the learners through a (mathematical) dialogue in order to find out their behaviour in the use of public transport.</p> <p>In this phase, which is very dependent on the habits and personal circumstances of the learners, the teacher maybe needs to highlight the advantages of public transport and let the learners time to reflect their impact on CO2 emissions as well.</p>	<p>Possible questions: How do you get to class every morning? Do you like to use public transport? Where do you buy your tickets? What kind of tickets do you normally buy? Do you know that there are different kinds of tickets – single, daily, weekly, monthly? Do you know kinds of special tickets for public transport, like climate ticket or network pass?</p> <p>What are the advantages and disadvantages of public transport in your eyes?</p>	<p>cognitive activation questioning</p>

¹ for description and explanation of kinds of tasks, HITS and other background information please consult the teacher's/user's guide



30 minutes	<p>Analysing options: The learning group collects the different ticket options and reflects on the price and period of validity of each. In a first step, it can be useful to concentrate on no more than 3 options, e.g., single, daily and weekly.</p> <p>The group choses one itinerary, maybe the route of one learner to class and does online research on the prices for the different ticket options. Then, the teacher guides the learners to calculate the different options. The different results as well as the advantages and disadvantages of the different options are analysed and discussed.</p> <p>Optional: The learners design a table or graph comparing the cost of each ticket option.</p>	<p>optional: information on special ticket options (see appendix 1)</p> <p>internet</p> <p>PC or creative material</p>	<p>scaffolding worked example</p> <p>visualising</p>
45 minutes+	<p>Transfer The learners organise in groups and manage the given situations (spreadsheet) of differing public transport usage following the structure of the worked example.</p> <p>The learners are assigned to chose realistic destinations / terminal stations for doing their calculations.</p>	<p>spreadsheet with different scenarios of public transport usage (see appendix 2)</p> <p>Internet</p>	<p>collaborative learning critical thinking hand-on-learning</p>
10 minutes	<p>Reflection: End the lesson with a reflection period where learners can share their findings and reflect on the importance of comparing prices when choosing the appropriate ticket.</p>		<p>reflection feedback</p>



Suggestions for the teacher/user

The example presented here should be considered as exemplary and inspirational material presenting a guideline with a high range of possibilities of adapting those suggestions to a specific group of learners or an individual learner with his or her very personal requirements.

In concrete terms, the example “Which ticket should I buy?” could be adapted these ways:

- Duration: Depending on the routine and knowledge of the learners, this learning setting can easily go without the excursion to the station. Nevertheless, the teacher should be aware of the fact that there may be learners who use public transport very regularly without knowing about the different ticket options or how to handle a ticket vending machine.
- Individualization: Especially for learners who are used to buying tickets for public transport and to make purchases decisions in this regard, it can be necessary to offer differentiated tasks. One way to do this is to put these learners in the role of experts and have them make explanations at the station (accompanied by the teacher). Furthermore, those learners can expand the activities of comparison by including special ticket opportunities in the comparison as well.
- Further or additional material: If students are not too used to using public transport, it can be useful to work intensively with digital and analog schedules. Request forms for special tickets may also be part of this learning setting.

Our educational activities aim at numeracy skills being not only memorized, but first of all being practiced and functionally used by the learners in daily life or/and vocational situations. It is therefore recommended to implement the idea of HITS³ (higher impacts of teaching skills) as far and often as possible: ...

- ... work with concrete and authentic material that learners will recognize from everyday life situations.
- ... ask the learners questions and let them raise questions themselves. It can be crucial to discuss numeracy themes, contexts and numbers.
- ... think of possible and meaningful ways of transfer: The examples the learners work with need to be realistic for them. This means that the routes must take place in a geographic setting that learners can imagine.

³ For general information and explanation on HITS please see the user’s/teacher’s guide



Appendix 1

Special ticket options for a in-depth comparison

oövv
Der Verkehrsverbund

Ein Ticket für alle Öffis in OÖ

Mehr Leistung für weniger Geld

Mit dem **KlimaTicket OÖ** haben wir in Oberösterreich **günstige regionale Jahresnetzkarten** für den Öffentlichen Verkehr eingeführt. Es ist in **fünf verschiedenen bedarfsorientierten Kategorien** verfügbar und für zwölf aufeinander folgende Kalendermonate gültig. So profitieren Sie vom unbegrenzten Zugang zum umfangreichen öffentlichen Verkehrsangebot in ganz Oberösterreich, je nach Wunsch mit oder ohne Kernzonenverkehre (Linz, Wels und Steyr). Sie erhalten somit also im Vergleich zu den streckenbezogenen OÖVV Jahreskarten mehr Leistung für weniger Geld.

Gut für die Umwelt

Mit dem neuen KlimaTicket OÖ leisten Sie einen wertvollen und wichtigen Beitrag zum Klimaschutz: Öffentlicher Verkehr ist bei weitem klimaschonender als die Fahrt mit dem Auto oder Motorrad. Durch den Kauf des KlimaTickets OÖ helfen Sie aktiv mit, unsere Umwelt zu schützen und Oberösterreich auch zukünftig als attraktiven Lebensraum zu erhalten.

Jetzt umsteigen

Klimafreundlich & günstig unterwegs ab 365 Euro pro Jahr*

Jetzt bestellen beim OÖ Verkehrsverbund – entweder online auf **www.shop.oeevv.at** oder persönlich im OÖVV Kundencenter (4020 Linz, Volksgartenstraße 23, Telefon: 0732/66 10 10 66). Alle Details zum **KlimaTicket OÖ** finden Sie auf **www.oeevv.at**
Alle Informationen zum **KlimaTicket O** finden Sie auf der Website des Ministeriums für Klimaschutz: **www.klimaticket.at**

www.oeevv.at

Eine Initiative des Landes OÖ und des Klimaschutzministeriums.

*Alle Ticketkategorien und Preise finden Sie auf der Rückseite.



Source: https://www.oeevv.at/upload/content/downloads/KlimaTicket_OOe/Infolyer-Klimaticket-OOE.pdf [30.06.2023]



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OÖVV SCHÜLER- UND LEHRLINGSFREIFAHRT

Schüler- bzw. Lehrlings-Ticket und Jugendticket-Netz



Jede Schülerin und jeder Schüler bzw. Lehrling in Österreich hat die Möglichkeit unter bestimmten Voraussetzungen vergünstigt mit den Öffis zur Schule und/oder zum Lehrbetrieb zu fahren.

Allgemeine Voraussetzungen:

- + Schülerin oder Schüler und/oder Lehrling darf nicht älter als 24 Jahre alt sein.
- + Die Familienbeihilfe muss bezogen werden.
- + Der Wohnort und/oder Ausbildungsort muss in Österreich sein.

>> [Zum Ticketshop](#) <<

Source : <https://www.ooevv.at/?seite=schueler-und-lehrlinge&sprache=DE> [30.06.2023]



Das 1-2-3-Klimaticket

1 Bundesland
1 Euro pro Tag
365 € pro Jahr

2 Bundesländer
2 Euro pro Tag
730 € pro Jahr

Ganz Österreich
3 Euro pro Tag
1095 € pro Jahr

Source : <https://www.krone.at/2439958> [30.06.2023]



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Appendix 2

Spreadsheet with different examples for transfer activities

Cost comparison for public transport usage

Daily usage for one week:

Suppose **you** use public transportation every day for a week to go to school and return home. Compare the costs of individual tickets for each day with the prices of weekly or monthly passes. Consider which option is more economically viable and explain why.

Weekend usage for one month:

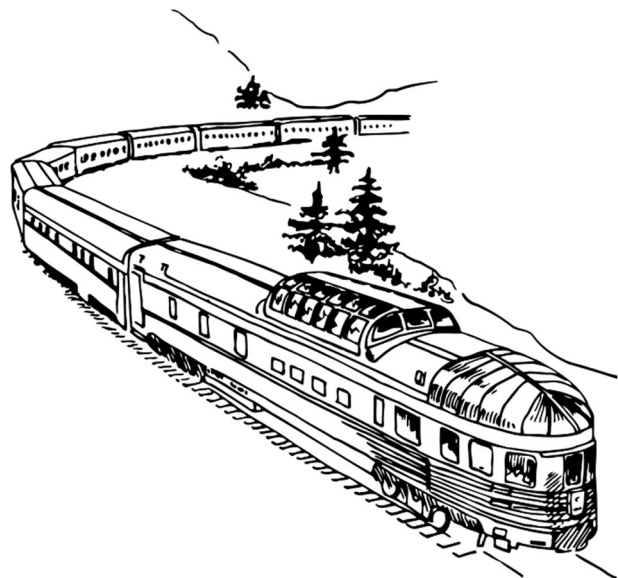
Let's say you only use public transportation on weekends for an entire month. Chose a destination that is realistic for you. Calculate the costs for individual trips on each weekend compared to a monthly pass that is also valid on weekdays. Decide which option is more cost-effective and explain your choice.

Occasional usage over an extended period:

Assume that you only use public transportation occasionally, around twice a week, over a period of three months. Chose a destination that is realistic for you. Compare the costs of individual tickets for each trip with the prices of a three-month pass.

Commuting to work:

Imagine you need to commute to work and back every day. Chose a destination that is realistic for you. Compare the costs of individual tickets, weekly passes, and monthly passes. Take into account whether the costs for commuting on weekends or outside peak hours differ. Select the most affordable option and explain your decision.



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