

Numeracy in practice teaching and learning examples

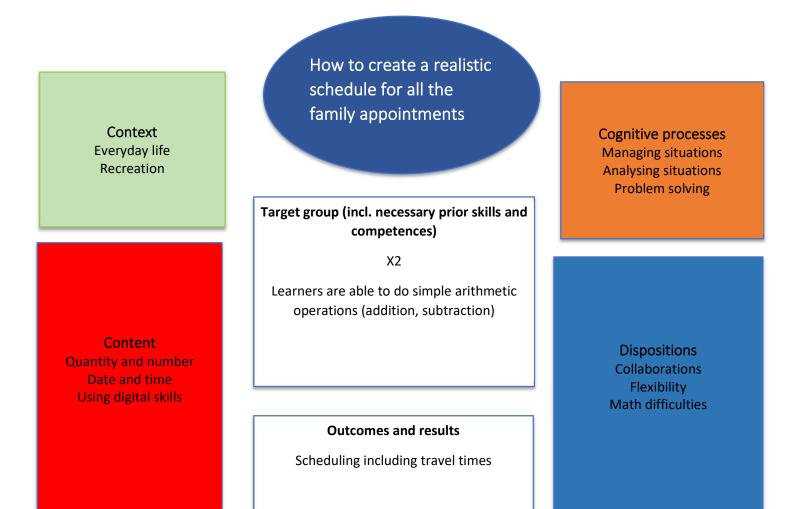


MY FAMILY'S TIME MANAGEMENT

How to manage my schedule at home

In our everyday life we sometimes have to manage a lot of things. There is a parent-teacher conference at school, we have an appointment at the doctor's, our son wants to visit a friend and we must take our daughter to her soccer training. How can we manage all these appointments without stress and without being late?

Overview "My family's time management"





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	Main information
Content	Date and time Analog and digital clock Calculating with times
Target group	Adults and young adults (with family) The situation can also be proposed for parents with children at the beginning of school
Learning intention	 What is the intention of adults to face this problem? Numeracy for personal and private purposes Numeracy for professional issues
Duration	4 hours
Material and resources	Timetables, picture cards, time schedules, online exercises, worksheets
Group size	Range from 5 to 10 learners
Problem statement	Planning appointments can be difficult, if we don't consider all time requests, such as travel time.
Working questions	Do the learners have problems with time management? How do they normally manage their appointments? Do they use a paper-pen-calendar, a digital tool or nothing? How do they check conflicts in their families' time management?
	How can we fix appointments considering travel times and time reserves?
	How can we estimate travel time?
	How can we calculate with time?
Learning outcomes and results	The learners are able to estimate / calculate the time needed for their appointments, they are able to understand and use timetables of public transport. They are able to use digital calendars (on their smartphone)
Reference to National Qualification Frame	Optional (country's decision)





	Working	plan		
Time (lessons)	Description of content/activities	Material	Methodical and didactic information ¹	
30'	Activation Learners fill in their professional and private dates in a timetable.	Timetables	HITS Cognitive activation	
	Discussion about time management		Questioning	
60'+	E stimation The learners estimate travel times for different means of transport	Worksheet	HITS Questioning	
	(on foot, by bike, by car, by bus). Learners compare their estimation with each other.	Picture cards	Collaborative learning	
	They compare with bus time schedule	Bus time schedule (Appendix 1)	Hands on learning	
45'	Learning if needed: revision of analog and digital time	Online-tools (Appendix 2)	HITS Worked examples	
75′	Learning The learners calculate the time needed	Timetable	HITS Hands on learning	
	The learners calculate with times (addition, subtraction)	Worksheets and exercises to solve (Appendix 3, 4)	Worked examples	
30'+	Transfer Revision of the learner's timetables and adaption, if necessary	Timetables	HITS Questioning	
	Use a digital timetable (on the smartphone)	Smartphone		

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



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 "My family's time management" could be adapted these ways:

- Duration: Depending on the learners' individual prior knowledges the duration of this example can vary. It is also possible to lengthen the phase of activation, depending on the interest of the group. It may also be necessary to clarify the term "time management" with the learners and to put up a vocabulary list of appointments and free time activities.
- Individualization: Specifically, we need to adjust the activities related to hours, minutes, and how to write and talk about time to match what the learners already know. In the example, we suggest some exercises to help them get comfortable with understanding time and duration.
- Further or additional material: It is absolutely recommended to make the learners' personally used material (calendars, watches, apps, smartphones etc.) part of the lessons.

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 HITS² (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 ways of transfer: in this example, the learners can reflect their time management. They can create a timetable or adapt an existing one. Depending on the learner's prior skills and personal needs, they can learn to use a digital calendar on the smartphone.
- … encourage the learners to collaborative learning. In this example the learners should discuss their different estimations of travel times in small groups. The discussion can lead to a common result.

² For general information and explanation on HITS and other background information please consult the teacher's/user's guide.





Appendix

Appendix 1: Bus timetable

Montag bis Freitag								alle 15 Minuten 7:48 bis 12:33				ale 15 Minuten 13:03 bis 17:48				alle 30 Minuten 18:03 bis 19:33			131				
Höllwiesenstraße	-			5:53		6:28	6:43	7:00	7:13	7:33	48	:03	:18	:33	12:48	:03	:18	:33	:48	03	18:18	:33	20:03 20:
Puchberg		5:25		5:58	6:15	6:30		7:02		7:35		:05		:35		:05	1	:35		:05	18:22	:35	20:07 20:
Straubingersiedung		5:27		6:00	6:17	6:32	6:45	7:04	7:15	7:37	:51	:07	:21	:37	12:51	:07	:21	:37	:51	:07	18:20	:37	20:05 20:
5udetenstraße		5:28		6:01	6:18	6:33	6:46	7:05	7:16	7:38	152	:08	:22	:38	12:52	:08	:22	:38	:52	80	3	:38	20:04
Toifhweg		5:29		6:02	6:19	6:34	6:47	7:06	7:17	7:39	:53	:09	:23	:39	12:53	:09	:23	:39	:53	:09		:39	
Elisabethstraße		5:30		6:03	6:20	6:35	6:48	7:07	7:18	7:40	54	10	:24	:40	12:54	±10.	:24	:40	:54	:10		:40	
Klinikum		5:31		6:04	6:21	6:36	6:49	7:08	7:20	7:42	:55	:12	:25	:42	12:55	:12	:25	:42	:55	:12		:42	
Herz-Jesu-Kirche		5:33		6:06	6:23	6:38	6:51	7:10	7:22	7:44	:57	:14	:27	:44	12:57	:14	:27	:44	:57	:14		:44	
Stifterstraße		5:34		6:07	6:24	6:39	6:52	7:11	7:24	7:45	158	:15	:28	:45	12:58	:15	:28	:45	:58	:15		:45	
Sandwirtstraße		5:35		6:08	6:25	6:40	6:53	7:12	7:25	7:46	.59	.16	:29	:46	12:59	:16	:29	:46	:59	:16		:46	
Hauptbahnhof (Neustadt) • Steig C2		5:36		6:09	6:26	6:41	6:54	7:14	7:27	7:47	:00	:17	:30	:47	13:00	:17	:30	:47	:00	:17		:47	
Bahnhofstraße • nur Ausstieg		5:37		6:10	6:27	6:42	6:55	7:15	7:28	7:49	:02	:19	:32	:49	13:02	:19	:32	:49	:02	:19		:49	
Kaiser-Josef-Platz		5:45		6:20	6:35	6:50	7:05	7:25	7:40	7:55	:10	:25	:40	:55	13:10	:25	:40	:55	:10	:25		:55	
Hamerlingstraße	-	5:47		6:22	6:37	6:52	7:07	7:27	7:42	7:57	192	27	:42	:57	13:12	:27	:42	:57	:12	27		:57	
1 Polizeidirektion		5:48		6:23	6:38	6:53	7:08	7:28	7:43	7:58	:13	:28	:43	:58	13:13		1						
Herminenhof • Tierpark																:28	:43	:58	:13	28		:58	
Kienzistraße • Welser Messe																:29	:44	:59	:14	:29		:59	
Bauernstraße		5:49		6:24	6:39	6:54	7:09	7:29	7:44	7:59	:14	29	:44	:59	13:14	(29	:44	:59	:14	29		:59	
5chulstra8e		5:50		6:25	6:40	6:55	7:10	7:30	7:45	8:00	:15	:30	:45	:00	13:15	:30	:45	:00	:15	:30		:00	
Sonnsteinstraße		5:51		6:26	6:41	6:56	7:11	7:31	7:46	8:01	16	-31	:46	:01	13:16	:31	:46	:01	:16	31		:01	
Zeltkirche		5:52		6:27	6:42	6:57	7:12	7:32	7:47	8:02	:17	:32	:47	:02	13:17	:32	:47	:02	:17	:32		:02	
Margeritenstraße	5:28	5:53	6:18	6:28	6:43	6:58	7:13	7:33	7:48	8:03	:18	:33	:48	:03	13:18	:33	:48	:03	:18	:33		:03	
Magnolienstraße	5:29	5:54	6:19	6:29	6:44	6:59	7:14	7:34	7:49	8:04	:19	:34	:49	:04	13:19	:34	:49	:04	:19	:34		:04	
Traunaustraße / Lichtenegger Straße	5:30	5:55	6:20	6:30	6:45	7:00	7.15	7:35	7:50	8:05	:20	35	:50	:05	13:20	135	:50	:05	:20	:35		:05	
Noitzmühle • an	5:32	5:57	6:22	6:32	6:47	7:02	7:17	7:37	7:52	8:07	:22	:37	:52	:07	13:22	:37	:52	:07	:22	:37		:07	
Voltzmühje	5:32	6:04	6:22	6:34	6:49	7:07	7:22	7:39	7:54	8:09	24	:39	:54	:09	13:24	:39	:54	:09	:24	139		:09	
.ärchenstraße	5:33	6:05	6:23	6:35	6:50	7:08	7:23	7:40	7:55	8:10	25	:40	155	:10	13:25	:40	:55	:10	:25	:40		:10	
Grüne Zeile	5:34	6:06	6:24	6:36	6:51	7:09	7:24	7:41	7:56	8:11	:26	:41	:56	:11	13:26	:41	:56	:11	:26	:41		:11	

Answer the following questions

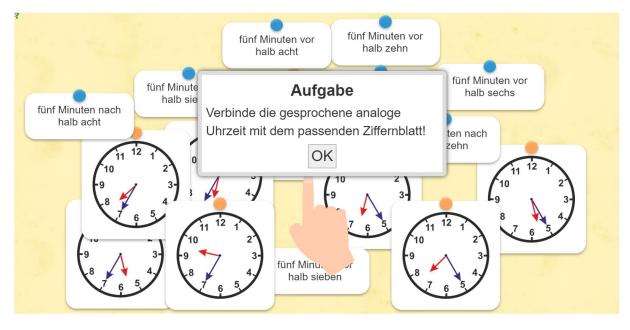
- 1. You have an appointment at the hospital at 8 am. The bus stops right outside the hospital. What time do you have to catch the bus in Puchberg to be on time?
- 2. How many minutes does the bus take from Puchberg to the hospital?
- **3.** You get on the bus at 13:00 at the main station. You travel to Schulstraße. When do you get off again?





Appendix 2: What's the time?

https://learningapps.org/view3305119 (01.06.2023)



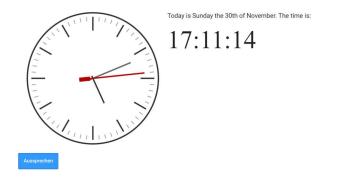
https://www.matheretter.de/rechner/uhrzeit-lernen (01.06.2023)

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Uhrzeit lernen online - mit Aussprache

Übersicht aller Rechner 🗗

Dieses Programm ist zum Lernen der Zeit geeignet. Es richtet sich an Kinder und Deutschlerner. Die Uhrzeit wird digital und analog angezeigt. Gib die Zeit in den Feldern ein und du siehst die passende analoge Anzeige.







Appendix 3: Working with time indications

Aktuelle Uhrzeit: Wie spät ist es		
in 15 Minuten:		Uhr
in 1 Stunde:	<u></u>	
in 3 Stunden:	3 7	Uhr
in 5 Stunden:		Uhr
in 38 Minuten:	8 <u>81</u>	Uhr
in 1,5 Stunden:		Uhr

<u>Aktuelle Uhrzeit:</u> Wie spät ist es	14:15 Uhr	
in 15 Minuten:	: :	Uhr
in 30 Minuten:	·	Uhr
in 1 Stunde:	<u></u>	Uhr
in 3 Stunden:		Uhr
in 5 Stunden:		Uhr
in 42 Minuten:	<u>. </u>	Uhr
in 1,5 Stunden:	·	Uhr



Aktuelle Uhrzeit:	18:35 Uhr	
Wie spät war es	5	
vor 15 Minuten:	1 0 - 1 1	Uhr
vor 30 Minuten:	1.5	Uhr
vor 1 Stunde:	P <u>2 IP</u>	Uhr
vor 3 Stunden:		Uhr
vor 5 Stunden:	13-10	Uhr
vor 56 Minuten:	<u>a</u>	Uhr
vor 3,5 Stunden:	0 <u></u>	Uhr

Aktuelle Uhrzeit:	20:45 Uhr
Wie spät war es.	-

vor 15 Minuten:	-	Uhr
vor 30 Minuten:		Uhr
vor 1 Stunde:	<u>, 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</u>	Uhr
vor 3 Stunden:		Uhr
vor 5 Stunden:	1	Uhr
vor 23 Minuten:	4 <u></u>	Uhr
vor 2,5 Stunden:	<u> </u>	Uhr



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Appendix 4 – Time and period

1. Complete the table

	Start	Duration	End
You travel 23 minutes to work by train	07:20		
The bus arrives in the city center at 18:45.		17 minutes	
The movie lasts 1 hour 55 minutes.			22:10
My daughter is back from soccer practice at 5:30 pm	14:45		
The doctor's appointment lasts 25 minutes.	10:30		
The parent-teacher conference ends at 18:00.	13:15		

2. Complete the table

70 minutes	=	1 hour 10 minutes	=	1 hour 23 minutes
90 minutes	=		=	2 hours 5 minutes
120 minutes	=		=	2 hours 55 minutes
210 minutes	=		=	3 hours 12 minutes
255 minutes	=		=	4 hours 41 minutes

3. Find the correct answer.

You have an appointment at the doctor's. You walk 7 minutes from home to the bus stop. The bus ride takes 18 minutes. From the bus station to the doctor's office you need another 12 minutes.

- How long does the journey take in total?
- When do you have to leave home if you want to be on time for your appointment at 10:30?







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