

To make this list was very complicated task. The book contains experiences of 30 years of teaching physics. In those years I met, discuss, and learn from many people on various meetings, workshops, and conferences. When preparing for lessons I was often looking for the best ideas how to make topics interesting and understandable. After lessons I put my remarks into materials and so it continues. What I can do now, is to put together resources I remember using, and in the same way apologize if I forgot something, or somebody.

Books and textbooks

- Baník I., Zámečník. J. 2006. Fyzika 1 - *Mechanika hmotného bodu. Mechanika sústavy*, STU Bratislava
- Baník I., Baník R. 1992-1997, *Kaleidoskop učiteľa fyziky 1-6*, MC Bratislava
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- Bloomfield, L.A.2015. *HOW THINGS WORK, The Physics of Everyday Life*, Wiley
- Browne, M. 1999. *Schaum's outline of theory and problems of physics for engineering and science*. New York: McGraw Hill.
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- Halliday, Resnick, and Walker. n.d. *Fundamentals of Physics*. 3rd ed. New York: John Wiley and Sons
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- Kováčik, S. 2021. *Obyčajné zázraky*, SLOVART, Bratislava.
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Tipler, P. 2004. *Physics for scientists and engineers*. 5th ed. New York: W.H. Freeman.

Tuľčinskij M.J.1978. *Zbierka kvalitatívnych úloh z fyziky*, Bratislava:ALFA

Veselský, J. 2009. *Fyzika - Mechanika, pružnosť a pevnosť, hydromechanika.*, STU Bratislava

Vondra, M. 2002. *Cvičení k fyzike v kostce*, Havlíčkův Brod, Fragment

The Science Book, 2014. Dorling Kindersley

Resources from the Internet and You Tube

Souhrnný sborník Veletrhu nápadů učitelů fyziky (Summary collection of the Physics Teacher's Idea Fair)

<https://vnuf.cz/sbornik/>

Tvorivý učiteľ fyziky (Creative physics teacher), Národný festival fyziky (National Physics Festival)

<http://sfs.sav.sk/smolenice/>

Most of the universities nowadays use YouTube channel to promote what they do for their students and also try to attract the new ones.

Masarykova Univerzita Brno (Masaryk University (MUNI))

<https://www.em.muni.cz/veda> (<https://www.em.muni.cz/en/science>)

Or put into You Tube searching word Badatelna

Katedra didaktiky fyziky, MFF UK Praha.

(Department of Physics Education, Faculty of mathematics and Physics, Charles University, Prague)

Look at the materials for teachers.

<http://fyzweb.cz/materialy/>

https://kdf.mff.cuni.cz/index_en.php

<https://kdf.mff.cuni.cz/heureka/>

(When talking about Heureka, in Slovakia I would stress materials prepared by A.Rohařová, V.Karaszová who organized trainings.)

<https://kdf.mff.cuni.cz/>

<http://fyzikalnipokusy.cz/cs>

Fakulta matematiky, fyziky a informatiky, Univerzita Komenského v Bratislave
(Faculty of Mathematics, Physics and Informatics, Comenius University Bratislava)

<https://www.youtube.com/matfyzjein>

https://www.youtube.com/@vedator_sk

(Names: František Kundracik, Juraj Tekel, Klára Velmovská, Peter Horváth, Samuel Kováčik
and others)

Univerzita Pavla Jozefa Šafárika v Košiciach

(Pavol Jozef Šafárik University in Košice)

<https://www.science-on-stage.sk/experimenty.php>

<https://www.science-on-stage.sk/workshopy.php>

https://www.science-on-stage.sk/on_stage.php

Bol raz jeden vynálezca

https://www.youtube.com/results?search_query=bol+raz+jeden+vyn%C3%A1lezca

MITOpenCourseWare: Massachusetts Institute of Technology

Lewin, Walter. *8.01 Physics I: Classical Mechanics, Fall 1999*.

<http://ocw.mit.edu/courses/physics/8-01-physics-i-classical-mechanics-fall-1999>

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Very inspirational is: <https://www.nobelprize.org/>

<https://www.science-on-stage.eu/>

For Slovak teachers. <https://www.quark.sk/znacka/quark/>

<https://vedator.space/>

Names of the physics teachers and enthusiasts, organizations I followed up on You Tube and on the Internet.

From the beginning of my practice as a physics teacher, I was looking for people who tried to make physics interesting for students. It all started with the first four mentioned bellow.

SCHOLA LUDUS Centrum pre podporu výchovy k vede a rozvoj celoživotného neformálneho vzdelávania na Fakulte Matematiky, Fyziky a Informatiky Univerzity Komenského v Bratislave - K.Teplanová, V. Haverlíková (Biznárová), A. Rohalová (Marenčáková): <https://www.scholaludus.sk/new/index.php?go=aktuality>

Vedecká hračka - B. Puobišová: <https://www.vedeckahracka.sk/>

Mladí Debrujári- asociácia Amavet: <https://www.amavet.sk/vedatorske-pokusy/>

Projekt Heuréka – I.Dvořáková: <https://kdf.mff.cuni.cz/heureka/kontakt/>

Jozef Beňuška -a physics teacher at the V. Pauliny-Tóth Gymnasium in Martin,

honored by the European Physical Society for Lifetime Achievement in 2017

Dianna Leilani Cowern is an American science communicator, she studied at Massachusetts Institute of technology, her channel is called – Physics Girl

Zdenek Drozd - Department of Physics Education Charles University Prague - Rande s fyzikou

Tatiana Erukhimova, a professor in Texas A&M's Physics and Astronomy department and Physics Outreach program

Arwind Gupta -an Indian toy inventor, author, translator and scientist: Toys for Science and Math Education

Derek Alexander Muller – Applied Science in Engineering Physics - YouTube channel Veritasium

Neil deGrasse Tyson – StarTalk

Jearl Walker- Physics Professor Cleveland State University - Flying Circus of Physics

Nick Weckesser - Nick Lucid – master of science in physics -The Science Asylum

Bruce Yeanny -middle school physical science teacher for 41 years

NASA STEM Engagement

<https://www.nasa.gov/stem>

ESA Teach with space

https://www.esa.int/Education/Teachers_Corner/Teach_with_space3

For younger children you can find interesting ideas also on Pinterest webpage.

Another valuable resource are experiential centers of science. Each country certainly has some.

Aurelium Science Adventure Center, Bratislava, Slovakia

Vida science center Brno – Czech Republic

Technical Museum Vienna, Austria

The last ones I did not use in the textbook, but I used them as an inspiration for students, to persuade them that physics is fun and it is everywhere:

Industrial folklore:

Vrbovskí vit'azi: for example:

https://www.youtube.com/watch?v=Y_GDDUIeFAo

<https://www.youtube.com/watch?v=K4NOnLr0EJs>

Blue Man Group:

<https://www.youtube.com/watch?v=MExbOjo3Yw>

Students can make it also:

<https://www.youtube.com/watch?v=Mreu2Xc3blc>

Glass harmonica:

<https://www.youtube.com/watch?v=gDm4Iphr1Yg>

