

Don't be afraid of controversial areas in the school curriculum

The school program is full of ambiguous moments. Somewhere science has stepped forward, and books, twenty years has not changed. Somewhere, the drafters can't agree on what to tell the school. Where the scientists disagree about the world. And from the individual items and breathes rhetorical questions, no worse than hamlet's, from which adults might have insomnia. And how it to teach to children?

Pretty scary to be face to face with the topics around which the controversy did not fade away. Suddenly it will call into question the teacher's authority? Suddenly will lead to conflict? Shake the firmness of schooling? Will be harmful to a child's psyche?

The temptation to just bypass the "slippery" side. But in fact, with creativity, and courage are all "bumpy", "irregular", "uncomfortable" becomes a key for better understanding of the world. Look at the example of the four items, what issues can be raised in the classroom, to the desired key to select.

Biology: was Darwin?

Research and discoveries in selected areas of biology are constantly changing not only our present, but also knowledge about the past and the future. In the world to discuss the possibility of genetic engineering. Section of anthropology in the school textbooks lags behind modern concepts for decades. Neurobiology is developing by leaps and bounds.

If there was to be a competition for the most long-lived controversy about what to exclude from the curriculum, it is likely that in the first lines would be the question of the appropriateness of the theory of evolution in school. Yes, despite everything, this question from time to time asks some public in different countries, including. You can, without batting an eye, to keep all disputes behind and explain to students that requires GEF. And can acquaint children with the position like "Darwin's Theory is obsolete," and here's why...

Elena Dmitrievna editor Newtonew

— Criticism of the theory of evolution is often not with the position of scholars, but from the standpoint of religion. Very useful in practice can be the parsing of arguments of the religious minded parties, because these arguments are most often based on a misunderstanding of the theory of evolution. Therefore, examining them can improve the students understanding of evolution in principle, and to teach them the proper scientific dispute without juggling.

Portal "Anthropogenesis."ru ready again and again to explain why monkeys don't turn into a human.

Physics: the limitations of the high school experience

The very history of physics is the source of thinking about how "inconvenient" places in science are able to change scientific picture of the world. Remember the popular story about the beginning of the XX century: then it seemed that all the discoveries have already been made, then only thing left is to find out details. But then there were experiments that did not fit into existing theories, and as a result were born and the special theory of relativity and General theory of relativity.

Alexander Moroccan physics, post-graduate student, Ural state pedagogical University, Yekaterinburg

— It should be noted that the school curriculum revolves around a very well developed classical physics and relativity or quantum physics are considered very weak and fragmented. Therefore, for a discussion of some ambiguous elements of the avant-garde physical knowledge will have to do a big introduction. This does not mean that the discussions have no place in physics lessons, just their content will be different.

Explain to the students the essence of the argument between Einstein and Bohr will be difficult, but to talk about the boundaries of physical theories on the basis of the school program — the task is feasible.

Source: raminskibba.net

It might be interesting:

Do you know the physics?

For example, the discrepancy in life experience and physical knowledge (the classic example of reasoning in 7th grade about whether warm coat) and the boundaries of the physical theories. Almost all of the school thermodynamics suitable only for very slow processes. And all build lenses that make the school, are suitable only for rays close to the center of the lens.

Therefore, the drawings, like given, is incorrect, you can test experimentally and to verify this (or see the excellent article by Mayer and Maraschino in the journal "Physics in school", which describes similar experiments).

The realization of limited life experience and perception of physics as models of reality — important elements of the scientific worldview, the

worldview that should shape school.

Like any method of teaching, discussions have certain conditions under which their efficiency is greatest. So, if the teacher of the class with low motivation or "mixed" in terms of knowledge in physics, or attitude in class is not good, then discussions supply may not be justified.

Literature: read and doubt

But on the subject of "hamlet" questions to avoid. And it is not only that literary classics make us suffer and reflect. Even the history of literature can be a formal list of facts "who", "what" and "when", and maybe the abyss questions for discussion. Was Mikhail Sholokhov, author of "quiet don"? Why not use the sharp literary controversy that has been simmering around the issue, to talk about the historical context of literature? Or in another key category of the author in literature? About truth in art? And so on.

Reading of literature provides more questions than answers, and that's fine. (Hamlet and Ophelia. Hood. Mikhail Vrubel, 1884)

Source: wiki

But, of course, the main ground for any discussions and self — discoveries- yourself literary works.

Artem Novichenkova, literature teacher school '2009, Moscow

I love to ask children questions, playing on the sense of morality. For example, the question of Raskolnikov. Surely the death of a miserable old woman will not make the world thousands of people better? Or: is better to do evil or to do nothing? Is the path of stagnation is not the way of degradation? And another group of questions related to the understanding of the rules. What is it? Is it possible to break it, and if so, how? Who is closer to us: wretch Carlson or Bok? And with whom would you like to live in the same apartment? Kids are resilient, they are willing to think and change the opinion.

Anastasia Sirazetdinova literature ANO "Pavlovskaya gymnasium", Moscow

— Difficult topics is always a reason for discussion. Here should never be right or wrong, in any case can not "loose" opinion of the child, to say that it is wrong or inadequate for a discussion. Sometimes guys can be divided into two camps, are beginning to prove a particular point of view, using reference material. This applies not only to issues of "large forms" — "the quiet don" or "the Master and Margarita". Disputes may arise around a single poem.

Talk about awkward, difficult topics a must. This is what care about the most.

One day we were discussing "Tomorrow was the war" by Boris Vasilyev. Talking about the regime, banning at all. The discussion was active, there was much debate with regards to the "pros" and "cons" of the former regime. And one of the students all red in the face, even tears came to his eyes, and said loudly: "I would like to live during the reign of Stalin, there was order." He was raised by his grandfather—a Communist, no other way accept. In such cases, the important thing is not to hurt a child, even if his views differ sharply from your own.

Story: to ease the tension about the past

Around the history of the school controversy did not fade away ever. The matter is complicated by the fact that talk about the content of the school curriculum constantly strive to move from a scientific position to value judgments. But we digress from the educational functions and look at this subject only from the point of view of educational potential. How to teach the contentious issues of historical science? Do I need lessons to talk about what the historians "do not agree"?

Peter Mosaicart of the Department of theory and history of world culture in gymnasium 1505, Moscow

— All the historians, almost nothing was agreed. But for us, it's even better. In our school at the heart of teaching lies the scientific approach. We work with explanatory models that look at different events through the lens of various scientific views. Even the discussion we're having so that the student had the opportunity to take a scientific position. It astronaut (according to Shklovsky) historical narrative, presenting it through a series of opinions and theories, allowing to ease the tension that is pumped into society over the past.

An important task is to trace, where are those or other assessment, to look at their context: why Karamzin writes, and Zinin otherwise. And even more: why dad says one thing and my grandfather more.

The most difficult problem — the selection of theories and their criticism. Here, the teacher-historian is forced endlessly to be aware of and read much, and besides, to have an analytical mind. And it should explain everything and criticize so as not to violate the authority of parents and other teachers. This may be the most difficult.

It is a historical document. Propaganda poster during the Civil war 1918 – 1922.

Source: yaik.ru

Unfortunately, for many teachers it is almost unfeasible task. This causes them to go into this pathetic narrative discourse [pro-papers](#) of the

chronicler-a reformatory, in the best case is to work with two macrotheories (Marxism, focus on the role of a great people, civilizationism). The new Phosy require just of skill formation analysis and not just a huge amount of knowledge. In this paradigm the question "what are the disputed areas?" do not arise, as you know.

And it is a historical document. Propaganda poster during the Civil war 1918 – 1922.

Source: propagandahistory.ru

Konstantin Levelcontroller Letovo international school

It might be interesting:

Digitized primary sources

— Not really much of a debate on the lessons of history. Rather, we work a lot with primary sources and their interpretations, which can be nuances.

If a student uses a data source, not just arguing about the values, this is a big step forward.

Many discussions arise from ignorance of the facts. We work a lot with historical memory, public and personal perception of certain events. For example, I went to the exhibition "Russia — my story" (the rurikids, the Romanovs) and analyzed as different means (the selection of facts, render the organizers tried to convey their vision of history and how it differs from conventional scientific. I think it is important to observe the so-called "Golden rule of journalism": each side should be allowed to speak. If we discuss Vlasov, you should read what they are of themselves thought and wrote. If you are talking about Grozny, then I will give extracts from the letters of the king and Kurbsky.

Knowledge can only be those who have issues so thought the great twentieth century philosopher Hans Georg Gadamer. We hope to continue the conversation about the disputed areas in the school curriculum, which provoke you to ask questions. Please share your experience!