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# Redeeming Homework

A response to recent proposals for eliminating it

John D. Mays

Some months ago I read an article in *The Atlantic* suggesting that we seriously consider eliminating homework. To an uncritical reader, the author—a high school English teacher who appears to be a humble seeker of truth—seems to have a credible case. She cites another secondary English teacher, one Mark Barnes, who abandoned homework six years ago, which

resulted in a thriving classroom where the children learned more than ever and took their school work home with them, not because they had to, but because they loved it so much.

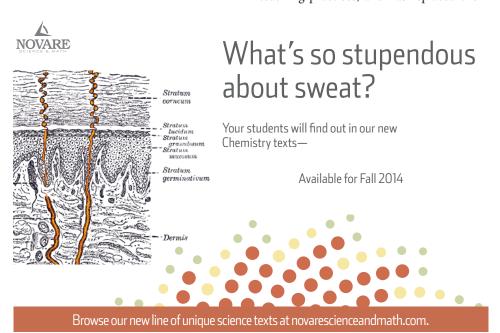
This topic seems to pop up regularly nowadays. The argument runs that a nation of educators long ago abandoned sound teaching practices, and has replaced them with loads and loads of homework—busywork.

And what do we have to show for it? Performance worse than ever! And the research? Only inconsistent results that cannot seem to establish a link between homework and learning gains. What more proof do we need that homework is useless—an exercise in futility that intrudes on family time and robs our precious little ones of their halcyon years as children absorbed in a world of imaginative play?

And now there is something like a national movement—crusading parents and teachers ready to take back the time that has been robbed from their children! Parents and teachers are saying that enough is enough. It is time to restore the lost years, to throw off the mantle of slavery to pointless worksheets, and to set the children free so they can learn again how to become all they were meant to be by liberating their imaginations and putting away drudgery.

However, there is a glitch in the argument. A closer read of the article reveals that the descriptions of the assignments questioned by the writer consistently al-

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## Chair, Table, and Lamp

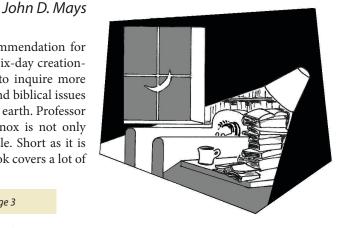
As the Christmas break approaches, many of us begin relishing the additional time available for reading. Our book review this time is about an excellent new contribution to the controversy within the evangelical community over the age of the earth.

Seven Days that Divide the World by John C. Lennox

This book is short and accessible, and

has become my first recommendation for people who come from a six-day creationist background and wish to inquire more deeply into the scientific and biblical issues pertaining to the age of the earth. Professor of Mathematics John Lennox is not only smart, he is wise and gentle. Short as it is (under 200 pages), this book covers a lot of ground.

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lude to certain *types* of homework. Note the following comment from Mr. Barnes, the teacher who abandoned homework: "The average educator was taught in her pre-service days that homework is a part of every teacher's instructional handbag. You lecture, model, assign a worksheet and follow that up with homework that, in many cases, looks a lot like the worksheet. Then you test and move on."

Question 1: Is the practice of assigning "a worksheet followed by homework that looks a lot like another worksheet" an effective way to engage students in the learning process?

Another quote from Mr. Barnes: "The result of eliminating traditional, mostly rote memory, homework was one of the most rewarding experiences of my teaching career." The author of the article continues: "Barnes said that his students typically outperformed their grade-level peers whose teachers relied on homework and memorization methods in their classrooms."

Question 2: Is an emphasis on "rote memory work" and "memorization methods" an appropriate teaching practice for secondary English (or any other secondary course)?

As I read the article, Mr. Barnes' comments suggested to me that the grand debate about homework now sweeping the nation is woefully missing the point. The issue is not that homework is bad. The issue is that bad pedagogy is bad. The article in The Atlantic makes no case at all condemning homework per se. The reason homework appears to be a futile waste of time is not because homework is a futile waste of time, but because most worksheets are a futile waste of time, and because secondary students shouldn't be spending their time engaged in rote memory work. Assigning one worksheet after another is sheer pedagogical laziness. And a pedagogy that rises no higher than tasking secondary students with rote memory work is a sad failure.

To press my point even further, consider Mr. Barnes' description of the teaching model he subscribed to before abandoning homework: "lecture, practice, homework, test, grade, move on." 'This model sounds very similar to what I call the *Cram-Pass*—

Forget cycle: students cram for tests, pass them, and then forget most of what they crammed within about three weeks. Then they "move on" and do it again, led by a teacher (800-page textbook in hand) who naively thinks that students can successfully "cover" 30 or 40 chapters of content in one year.

I have written extensively in this newsletter and in my books about this "teaching" practice. It is ubiquitous and it is a disaster. Not only do students remember very little of value from their classroom experience, they also learn to hate school because it bores them to tears and frustrates them to the point of despair.

(The fact that most of them don't despair is attributable to support from the social community: everyone *seems* to be

- 4. Students formulate answers in written English to questions requiring thinking of a higher order than simple memorization. (I am thinking here of the hierarchy of cognitive engagement described in Bloom's Taxonomy: 1) knowledge, 2) understanding, 3) application, 4) analysis, 5) evaluation, and 6) synthesis. Factual knowledge is at the lowest level.)
- 5. Students analyze data (level 4 in Bloom), evaluate it with respect to their experimental hypothesis (level 5), and write a lab report from scratch describing their work and summarizing the results (level 6).
- 6. Students review, practice, and rehearse older learning to keep it fresh.

"The issue is not that homework is bad. The issue is that bad pedagogy is bad."



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handling it and keeping their sanity, so it must be something that ordinary people do handle. This is just how school is, so most students simply swallow hard and keep moving. But occasionally a student snaps and simply can't run in the squirrel cage any longer. My heart goes out to all of them—whether they snap or not.)

I was as much a victim of this bizarre classroom model as anyone else, and did not appreciate the joy that comes with actual learning until I was an adult. My own teaching experience led me to the model I now advocate: a mastery-based approach in which students engage meaningfully with a manageable amount of core material, achieve mastery of it, and retain what they have mastered.

Returning now to the issue of homework, can we science and math teachers think of more creative ways to engage our students than worksheets and rote memory work? Here are just a few suggestions:

- Students read—perhaps with discussion prompts in mind—in preparation for engaging classroom discussion.
- 2. Students prepare remarks with the specific intention of sharing them in class as part of class discussion.
- 3. Students solve problems, showing their work in exquisite detail and exhibiting a scientific standard of care.

To summarize my criticism of the ideas put forward in the article: Homework is not inherently wasteful, but students need meaningful learning activities that lead them to engage deeply, and with the goal of achieving mastery. Worksheets and memorization are not that.

The writer of the article had another concern about homework besides its apparently futility, and that is the "unacceptable intrusion on free time—the time children need in order to relax, play, be quiet, and imagine." Now, I am just as great an opponent of the contemporary rat race as anyone I know. But this comment is ludicrous and must be addressed.

First, was the writer talking about fouryear-olds building castles in the sandbox? Or even 10-year-olds going fishing? Not at all. Her article is about teaching at the *secondary* level.

Let's consider the typical ways children in America age 13–18 tend to spend their time after school. My own informal observations over the past few decades have led me to the opinion that without responsibilities, and left completely to themselves, 97 out of 100 teenagers will do one or more of the following after school:

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#### Homework

- 1. Spend several hours on Facebook, perhaps accompanied by eating pizza.
- 2. Spend several hours playing digital games, perhaps accompanied by eating pizza.
- 3. Spend several hours watching movies, watching TV, or surfing the net, perhaps accompanied by eating pizza.
- 4. Get into trouble.
- 5. Attend athletic practice or practice a musical instrument for 1–2 hours, followed by 1–4 above.

The other three out of 100 hundred teenagers will spend their time writing poetry, building lasers, learning Arabic, or reading *The Brothers Karamazov*. I am not worried about them.

Please do not misunderstand me: I am not at all down on today's young people. Far from it. The above list may sound critical, but it is arguably a better looking list than what was current when I was a teenager.

True confession: When I was 16 I rarely had any homework of any kind. I spent my after-school hours laying on my stomach watching reruns of sitcoms and my evenings driving around with my best friend in his dad's '65 Mustang. It was a total, shameful, sinful waste of the time God had given me. I did not use my time to "be quiet" or to "imagine," and I didn't really need to "relax" at 3:00 in the afternoon because I wasn't tired.

I eventually took a small step toward maturity and got a job. Given that my school imposed virtually no responsibility on me at all and had done nothing to teach me to love learning (or anything else that would lead to character development), it was probably the best thing I could have done.

The point is that without the constraint provided by responsibilities and obligations, many of us sinners are tempted to squander our time—particularly when we are/were teenagers in a land of plenty. This is why when we are young we desperately need discipline imposed on us in the form of responsibility and work. If we receive this discipline, it will bear a harvest of righteousness.

Sometimes such work is hard and menial—think of Pip growing up working in Joe Gargery's blacksmith shop in *Great Expectations*. Sometimes the work is hard and earthy and healthy—think of 8-year-old Almonzo in *Farmer Boy*, whose father assigned him his own plow and team and section of land to maintain. Both boys went to school, but the additional manual labor kept them busy and provided much-needed discipline.

Today's world doesn't have much place for blacksmithing and plowing skills. (Even so, spending afternoons plowing or hammering horseshoes would be better than wasting time on electronic games.) Instead, the world needs people who can write well, think clearly, manage technology, and read critically. Even more importantly, we each have a duty before God to serve him well by making the most of the gifts he has given us, including time. We are commanded to love God with all our heart, soul, mind, and strength. In some different world we can only dream about, we could simply tell our teenagers to use their time as they saw fit,

knowing that they would be busy reading, building, learning, or serving. But for most human beings, such is fantasy. Kids need the discipline of responsibility and work, and today's economics dictate that for most of them that work needs to be as academic as their opportunities will allow.

I am not writing about a pragmatic or utilitarian agenda for making our students into successful contributors in the market-place. Rather, I am positing that in any era young people need to be taught the value of discipline, responsibility, and work. Not only is this a biblical view of the nature of human beings, it is a commonsense view. All we have to do is look around to see what happens when teenagers are given everything they need and then handed six or eight hours of free time every day. A few of them will spend their time wisely; most will not.

Teachers know that our academic goals for our students cannot typically be accomplished solely within the confines of a few one-hour class periods per week. But it is our responsibility as teachers to make sure that the work we assign is *meaningful*—work that will lead students to an encounter with subject matter that is more than superficial, to the development of their ability to engage critically with the world they live in, and to their growth in wisdom and virtue. Such assignments will be far different from worksheets and rote memory.

So do assign homework. And when you do, think on these things.

 Jessica Lahey, "Should I Stop Assigning Homework?" in *The Atlantic*, September 20, 2013.

## Books

In the first chapter Lennox notes that the Church has been in this position before (the controversy with Copernicus and Galileo) and we seem to have gotten through it all right. At that time, science seemed to conflict with biblical faith, but we eventually accepted the science and gained new understanding about interpreting Scripture.

In the second chapter, he discusses interpretive factors pertaining to Genesis. He notes that science and Scripture cannot be kept apart because the Bible has truth to say about the same objective reality that science addresses. He presents us with some excellent lessons from Galileo that inform us about how to address controversies be-

tween science and the Bible. He concludes the chapter by advising that we avoid two extremes: tying scriptural interpretation too closely to the science of the day, and ignoring science. Helpfully, there are many areas in which science and Scripture have converged, such as in the fact that scientists now universally accept that the universe had a beginning.

The third chapter is a review of some of the teachings of the early Church Fathers, and a discussion of the three major historical views about how to interpret the days of Genesis 1. The author points out that the interpretive difficulties in Genesis 1 are evident in the writings of the Church Fathers, and are not just a consequence of contemporary science. The conclusion of this discussion is that although the six days may be read as constituting a normal week of 24-hour days, the Scripture does not require reading Genesis 1 this way.

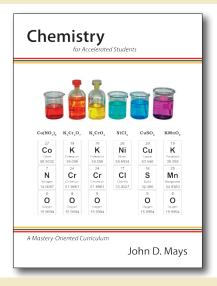
Chapter 4 turns to the nature of human beings, our unique place in creation, and some of the theological implications of accepting the mainstream scientific position on the earth's age. A key issue discussed here is death, and the problem of reconciling the idea of millions of years of animal death with the notion that death was ushered in as a result of the Fall. This chapter seems to ramble a bit, and includes what to me seem like some unnecessary speculations about Satan and the serpent. But the

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important conclusion of the chapter is that the death resulting from sin was specifically human death.

Professor Lennox's purpose in the final chapter is to take a broad look at the purpose of Genesis, which is to establish the basis for a biblical worldview. This basis consists of propositions including: God exists and is the creator, the universe was created and had a beginning, God is personal, and God is "a fellowship," a reference to the Trinity.

Lennox goes on to argue that the goal of creation was human beings made in God's image. He describes *Word* and *Light* as major scriptural themes that relate to God's act of creation, our knowledge of God as created beings in the creation, and our salvation in Christ.

There are five helpful appendices. These tend to be more technical, but the subjects they address are an important part of the book's contribution. Appendix A

supplies more information about the book of Genesis, addressing its uniqueness, the differences between it and other origins documents, and dating considerations.

Appendix B addresses the "cosmic temple" view of Genesis put forward by John Walton and others. Lennox describes this view and explains why he finds it unacceptable. Along the way, he refers to the "... deepest insights of a modern science that has come to realize the fundamental importance of information, and its irreducibility to matter and energy." This statement is of particular interest to me, since I maintained this same idea myself—although using the term *intelligence* in place of *information*—in my physical science text, *Novare Physical Science*.

In Appendix C Lennox elaborates more on the contemporary *convergence* of science and the Bible, represented in the fact that both now maintain that the universe had a beginning. As with Appendix

B, this section was of great interest to me since *Novare Physical Science* has an entire chapter on this subject.

Appendix D is another discourse on the early chapters of Genesis, this time addressing the challenge of harmonizing the creation accounts in Genesis 1 and Genesis 2. Lennox explains that the account of Genesis 2 is arranged in *logical* order rather than *chronological* order, and identifies the absence of the pluperfect verb tense in Hebrew as the source of the apparent conflict between Genesis 1 and 2.

The final appendix I found most valuable of all. Here Lennox defines theistic evolution as the belief that God created the world but did not specially intervene ("push atoms around") in creation after the Big Bang. Professor Lennox argues that this view cannot be acceptable to believers, and points out that there were at least two times after creation that God did specifically intervene: the incarnation and the resurrection. He then suggests two other possible interventions: the biogenesis and the creation of human beings. These last two are looking increasingly likely even in the secular scientific community. There is a growing clamor arising among scientists over the number of scientists who now agree on two key points: first, that biology requires information and thus cannot give rise to itself apart from an outside injection of information, and second, that unguided evolution simply cannot do the job of bringing purposeful, self-conscious human beings into existence. On these points Lennox cites at least twelve different scientists. These are exciting times in which to live. After decades of ridicule by atheists claiming that belief in God is no longer scientifically credible, it is refreshing to see the pendulum swinging the other way—it is atheism that is losing its scientific credibility!

I recommend *Seven Days that Divide* the *World* to everyone, regardless of your familiarity with this subject. If you are already well versed, you will want to be able to recommend this book to those that aren't. And if you are new to the conversation, Lennox's book is the perfect place to begin learning more about it.

## Postscript

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