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Getting to Know the Topic

Access to Education: Globally

In 2015, through the Sustainable Development Goals, the United Nations established SDG 4 which aims to “Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.” While there has been progress toward achieving this goal, approximately 258 million children and youth were out of school in 2018. Poverty, lack of access to quality health care, geography, gender, child labor, and food insecurity are some factors that prevent children from attending school.

Fast facts

- An estimated 40% of students are taught in a language they don’t speak or fully understand.
- Globally, approximately 15% of teachers have not received the minimum pedagogical training needed in order to teach.
- In 2019, less than one half of primary and lower secondary schools in Sub-Saharan Africa had access to electricity, the Internet, computers, and basic handwashing facilities, key basic services and facilities necessary to ensure a safe and effective learning environment for all students.

Taking Action Globally

There are a number of ways that students can take action in their own school and community to help developing communities around the world improve their access to education. Some ideas include:

- Volunteer at an organization that works for global issues—many organizations offer ways to get involved on their websites and in their offices
- Collect supplies (in consultation with the organization) or raise funds for an organization that will share the outcomes of the donations
- Create a campaign writing letters to the United Nations, government bodies, and other leaders to ask for added resources on the issue

Another option is to support and fundraise for the WE Villages program. Students can support this program by visiting WE.org/we-schools/program/campaigns to get ideas and resources for taking action on global education issues.

More than 700 million people worldwide are illiterate, two thirds of them being women.
Getting to Know the Topic

Access to Education: Locally

In the United States, despite a doubling of spending since the mid-1970s, average educational attainment has stagnated. Education is also highly correlated with employment and workforce participation. High school dropouts today have 3.5 times the unemployment rate of college graduates. More than 50% of high school dropouts are not in the labor force and an additional 19% are looking for work. Male high school dropouts were 47 times more likely to be incarcerated than a college graduate.

The issues are highlighted even further when comparing educational statistics and outcomes of other industrialized nations with those of the United States. Among the 35 members of the Organization for Economic Cooperation and Development, which sponsors the Program for International Student Assessment (PISA) initiative, the U.S. ranked 30th in math and 19th in science.

Fast facts

- According to the National Assessment of Educational Programming (NAEP), only 25% of 12th grade students are “proficient” or “advanced” in math.
- As of 2019, the United States was experiencing a 307,000 job shortfall in public education, according to the Economic Policy Institute.
- Only 37% of high school dropouts indicated their school tried to talk them into staying.

Taking Action Locally

Within their local or national community, students can:

- Work with a local organization addressing the topic
- Collect educational resources—like books, notepads, pens, and backpacks—and donate them for distribution to benefit students in need
- Create and deliver an educational workshop to raise awareness about educational topics and its local impact with a strong call to action that leads to enacting change

With both their global and local actions, encourage students to be creative with the ideas they develop through their action plans.

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45% of high-poverty schools receive state & local funds below what is typical for other schools in their district.
Sources for Lesson 1: Renaissance Education

Medieval Sourcebook:
Petrus Paulus Vergerius, *The New Education* (c. 1400)

P.P. Vergerius the Elder (1370–1444) was a teacher at Florence, Bologna, and Padua.

We call those studies liberal which are worthy of a free man; those studies by which we attain and practice virtue and wisdom; that education which calls forth, trains and develops those highest gifts of body and of mind which enoble men, and which are rightly judged to rank next in dignity to virtue only.

We come now to the consideration of the various subjects which may rightly be included under the name of “Liberal Studies.” Amongst these I accord the first place to History, on grounds both of its attractiveness and of its utility, qualities which appeal equally to the scholar and to the statesman. Next in importance ranks Moral Philosophy, which indeed is, in a peculiar sense, a “Liberal Art,” in that its purpose is to teach men the secret of true freedom. History, then, gives us the concrete examples of the precepts inculcated by philosophy. The one shows what men should do, the other what men have said and done in the past, and what practical lessons we may draw therefrom for the present day. I would indicate as the third main branch of study, Eloquence, which indeed holds a place of distinction amongst the refined Arts. By philosophy we learn the essential truth of things, which by eloquence we so exhibit in orderly adornment as to bring conviction to differing minds. And history provides the light of experienced cumulative wisdom fit to supplement the force of reason and the persuasion of eloquence.

The Art of Letters, however, rests upon a different footing. It is a study adapted to all times and to all circumstances, to the investigation of fresh knowledge or to the re-casting and application of old. Hence the importance of grammar and of the rules of composition must be recognized at the outset, as the foundation on which the whole study of Literature must rest: and closely associated with these rudiments, the art of Disputation or Logical argument. The function of this is to enable us to discern fallacy from truth in discussion. Logic, indeed, as setting forth the true method of learning, is the guide to the acquisition of knowledge in whatever subject.

Rhetoric comes next, and is strictly speaking the formal study by which we attain the art of eloquence; which, as we have just stated, takes the third place amongst the studies especially important in public life.

Arithmetic, which treats of the properties of numbers, Geometry, which treats of the properties of dimensions, lines, surfaces, and solid bodies, are weighty studies because they possess a peculiar element of certainty. The science of the Stars, their motions, magnitudes and distances, lifts us into the clear calm of the upper air. There we may contemplate the fixed stars, or the conjunctions of the planets, and predict the eclipses of the sun and the moon. The knowledge of Nature — animate and inanimate — the laws and the properties of things in heaven and in earth, their causes, mutations and effects, especially the explanation of their wonders (as they are popularly supposed) by the unraveling of their causes — this is a most delightful, and at the same time most profitable, study for youth. With these may be joined investigations concerning the weights of bodies, and those relative to the subject which mathematicians call “Perspective.”

Aeneas Sylvius Piccolomini

*De Librorum Educatione* (1450)

AENEAS SYLVIUS PICCOLOMINI TO LADISLAS KING OF BOHEMIA AND HUNGARY.

Need I, then, impress upon you the importance of the study of Philosophy, and of Letters, without which indeed philosophy itself is barely intelligible? By this twofold wisdom a Prince is trained to understand the laws of God and of man, by it we are, one and all, enlightened to see the realities of the world around us. Literature is our guide to the true meaning of the past, to a right estimate of the present, to a sound forecast of the future. Where Letters cease darkness covers the land; and a Prince who cannot read the lessons of history is a helpless prey of flattery and intrigue.

But further: we must learn to express ourselves with distinction, with style and manner worthy of our Subject. In a word, Eloquence is a prime accomplishment in one immersed in affairs.... For without reasonable practice the faculty of public speech may be found altogether wanting when the need arises. The actual delivery of our utterances calls for methodical training.

Grammar, it is allowed, is the portal to all knowledge whatsoever. As a subject of study it is more complex and profit only to such as enter early and zealously upon its more fruitful than its name would imply, and it yields its full pursuit. The greatest minds have not been ashamed to shew themselves earnest in the study of Grammar. Tully, Consul and defender of the state, Julius Caesar, the mighty Emperor, and Augustus his successor, gave evidence in their writings of skill in this fundamental branch of learning, and no prince need feel it unworthy of him to walk in the steps of so great exemplars.

Let this stand as a sketch or suggestion — it is nothing more — of the first of the three functions of Grammar above alluded to, viz., that which concerns correct speech and eloquence. But, as the study of Letters forms in reality one complete whole, the second function of grammar, as the art of written composition in prose and verse, is illustrated by what has been written above upon the spoken language. So I repeat that skill in composition can only be attained by close and copious reading of the standard authors in oratory, history and poetry, in which you must direct your attention not only to the vocabulary employed by them, but also to their method of handling their subject-matter. Following ancient precedent, Homer and Vergil, the masters of the Heroic style, should be your first choice in poetry.

If that be so, we must ask whether we are to include Music amongst pursuits unsuited to a Prince? The Romans of the later age seem to have deprecated attention to this Art in their Emperors. It was, on the other hand, held a marked defect in Themistocles that he could not tune, the lyre. The armies of Lacedaemon marched to victory under the inspiration of song, although Lycurgus could not have admitted the practice had it seemed to him unworthy of the sternest manhood. The Hebrew poet-king need be but alluded to, and Cicero is on his side also. So amidst some diversity of opinion our judgment inclines to the inclusion of Music, as a subject to be pursued in moderation under instructors only of serious character, who will rigorously disallow all melodies of a sensuous nature. Under these conditions we may accept the Pythagorean opinion that Music exerts a soothing and refreshing influence upon the mind.

Geometry is peculiarly fitted to the earlier stages of a boy’s education. For it quickens alike the perceptive faculty and the reasoning powers. Combining with this subject Arithmetic your Masters will certainly include the two in your course of training. The value of Geometry may be proved by the case of Syracuse, which city prolonged its defence simply by virtue of the skill of the geometrician Archimedes.... A prince must not be ignorant of Astronomy, which unfolds the skies and by that means interprets the secrets of Heaven to mortal men. Did not the greatest rulers of antiquity hold this wisdom in high esteem? On these grounds let the young Prince include this science in his courses.

In offering this short Treatise for your acceptance, I am fully aware that you need no incentive to regard the pursuit of Letters as the most worthy object of your ambition … Hence I have treated both of Greek and of Latin Letters, and I have confidence that the course I have laid down will prove a thoroughly satisfactory training in literature and scholarship. I should remind you that the conclusions presented in this little work are not the result of my own experience only. It is indeed a summary of the theory and practice of several scholars, and especially does it represent the doctrine of my father Guarino Veronese; so much so, that you may suppose him to be writing to you by my pen, and giving you the fruit of his long and ripe experience in teaching. May I hope that you will yourself prove to be one more example of the high worth of his precepts?

As regards the course of study. From the first, stress must be laid, upon distinct and sustained enunciation, both in speaking and in reading. But at the same time utterance must be perfectly natural; if affected or exaggerated the effect is unpleasing. The foundation of education must be laid in Grammar. Unless this be thoroughly learnt subsequent progress is uncertain, — a house built upon treacherous ground. Hence let the knowledge of nouns and verbs be secured, early, as the starting point for the rest. The master will employ the devices of repetition, examination, and the correction of erroneous inflexions purposely introduced.

I have said that ability to write Latin verse is one of the essential marks of an educated person, I wish now to indicate a second, which is of at least equal importance, namely, familiarity with the language and literature of Greece. The time has come when we must speak with no uncertain voice upon this vital requirement of scholarship. I am well aware that those who are ignorant of the Greek tongue decry its necessity, for reasons which are sufficiently evident. But I can allow no doubt to remain as to my own conviction that without a knowledge of Greek Latin scholarship itself is, in any real sense, impossible.

Before I bring this short treatise to a close I would urge you to consider the function of Letters as an adornment of leisure. Cicero, as you remember, declares Learning to be the inspiration of youth, the delight of age, the ornament of happy fortunes, the solace of adversity. A recreation in the Study, abroad it is no hindrance. In our work, in our leisure, whether we keep vigil or whether we court sleep, Letters are ever at hand as our surest resource. Do we seek refreshment for our minds? Where can we find it more happily than in a pursuit which affords alike utility and delight? If others seek recreation in dice in ball-play, in the theatre, do you seek it in acquiring knowledge. There you will see nothing which you may not admire; you will hear nothing which you would gladly forget. For good Books give no offence, call forth no rebuke; they will stir you, but with no empty hopes, no vain fears. Finally, through books, and books alone, will your converse be with the best and greatest, nay, even with the mighty dead themselves.

At Verona. xv Kal. Mar. MCCCCLVIII.

AENEAS SYLVIUS PICCOLOMINI TO LADISLAS KING OF BOHEMIA AND HUNGARY.

The Magnifico continued:

Then, my Lady, to show that your commands have power to induce me to essay even that which I know not how to do, I will speak of this excellent Lady as I would have her; and when I have fashioned her to my liking, not being able then to have another such, like Pygmalion I will take her for my own.

And although my lord Gaspar has said that the same rules which are set the Courtier, serve also for the Lady. I am of another mind, for while some qualities are common to both and as necessary to man as to woman, there are nevertheless some others that befit woman more than man, and some are befitting man to which she ought to be wholly a stranger. The same I say of bodily exercises; but above all, methinks that in her ways, manners, words, gestures and bearing, a woman ought to be very unlike a man; for just as it befits him to show a certain stout and sturdy manliness, so it is becoming in a woman to have a soft and dainty tenderness with an air of womanly sweetness in her every movement, which, in her going or staying or saying what you will, shall always make her seem the woman, without any likeness of a man.

Now, if this precept be added to the rules that these gentlemen have taught the Courtier, I certainly think she ought to be able to profit by many of them, and to adorn herself with admirable accomplishments, as my lord Gaspar says. For I believe that many faculties of the mind are as necessary to woman as to man; likewise gentle birth, to avoid affectation, to be naturally graceful in all her doings, to be mannerly, clever, prudent, not arrogant, not envious, not slanderous, not vain, not quarrelsome, not silly, to know how to win and keep the favor of her mistress and of all others, to practice well and gracefully the exercises that befit women. I am quite of the opinion, too, that beauty is more necessary to her than to the Courtier, for in truth that woman lacks much who lacks beauty. Then, too, she ought to be more circumspect and take greater care not to give occasion for evil being said of her, and so to act that she may not only escape a stain of guilt but even of suspicion, for a woman has not so many ways of defending herself against false imputations as has a man.

And since words that carry no meaning of importance are vain and puerile, the Court Lady must have not only the good sense to discern the quality of him with whom she is speaking, but knowledge of many things, in order to entertain him graciously; and in her talk she should know how to choose those things that are adapted to the quality of him with whom she is speaking, and should be cautious lest occasionally, without intending it, she utter words that may offend him. Let her guard against wearying him by praising herself indiscrately or by being too prolix. Let her not go about mingling serious matters with her playful or humorous discourse, or jests and jokes with her serious discourse. Let her not stupidly pretend to know that which she does not know, but modestly seek to do herself credit in that which she does know, — in all things avoiding affectation, as has been said. In this way she will be adorned with good manners, and will perform with perfect grace the bodily exercises proper to women; her discourse will be rich and full of prudence, virtue and pleasantness; and thus she will be not only loved but revered by everyone, and perhaps worthy to be placed side by side with this great Courtier as well in qualities of the mind as in those of the body.
Sources for Lesson 1: Renaissance Education

Comparing Educational Expectations in the Renaissance

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Multiple-Choice Question Set

Source 1

[T]here are nevertheless some others that befit woman more than man, and some are befitting man to which she ought to be wholly a stranger. The same I say of bodily exercise; but above all, methinks that in her ways, manners, words, gestures and bearing, a woman ought to be very unlike a man … it is becoming in a woman to have a soft and dainty tenderness with an air of womanly sweetness in every movement, which, in her going or staying or saying what you will, shall always make her seem the woman, without any likeness of a man….

I believe that many faculties of the mind are a necessary to woman as to man; likewise gentle birth, to avoid affectation, to be naturally graceful in all her doing, to be mannerly, clever, prudent, not arrogant … to know how to win and keep the favor of her mistress and of all others, to practice well and gracefully the exercises that befit women. I am quite of the opinion, too that beauty is more necessary … for, in truth, that woman lacks much who lack beauty.

—Count Baldassare Castiglione, The Book of the Courtier, 1528

Source 2

We must now hasten on to the larger and more important division of our subject, that which treats of the most precious of all human endowments, the Mind. Birth, wealth, fame, health, vigour and beauty are, indeed, highly prized by mankind, but they are one and all of the nature of accidents; they come and they go. But the riches of the mind are a stable possession unassailable by fortune, calumny, or time … remember the reply of Socrates to Gorgias, applying, it to your own case: ‘How can I adjudge the Great King happy, until I know to what he can truly lay claim in character and in wisdom?

Need I, then, impress upon you the importance of the study of Philosophy, and of Letters, without which indeed philosophy itself is barely intelligible? By this twofold wisdom a Prince is trained to understand the laws of God and of man, by it we are, one and all, enlightened to see the realities of the world around us. Literature is our guide to the true meaning of the past, to a right estimate of the present, to a sound forecast of the future. Where Letters cease darkness covers the land; and a Prince who cannot read the lessons of history is a helpless prey of flattery and intrigue.

—Aeneas Sylvius Piccolomini, De Librorum Educatione, 1450

1. Which of the following characteristics of the Renaissance is best reflected in the two passages above?
   a. Christian Humanism
   b. Italian Humanism
   c. Religious revivalism
   d. Art Patronage

2. Which of the following demonstrates a primary difference between the first and second document?
   a. The first document argues for secularism in Renaissance schools, while the second document argues for Christian humanism.
   b. The first document defends the re-introduction of slavery as a needed labor force, while the second document condemns it.
   c. The first document argues against official Church patronage of the arts, while the second document justifies it.
   d. The first document reflects the belief that beauty was more important than intellect for women, while the second document emphasizes the importance of study and intellect for men.
3. What element of humanism does the second document emphasize when advocating education?
   a. The need to study classical texts
   b. The belief that education should emphasize secularism
   c. The overarching importance of individual achievement
   d. The necessity of civic service

4. What accounts for the differences in these two documents?
   a. Economic advances had divided society and some questioned whether these economic developments helped Renaissance society.
   b. Many were unsure whether the printing press ought to be used to diffuse the ideas of the Italian Renaissance into northern Europe.
   c. Civic leaders were hesitant to put city-state monies towards funding the arts due to competition from religious institutions.
   d. Society was engaged in a debate over the role and opportunities that women should have in Renaissance society.
Sources for Assessing Lesson 2: Education in the Reformation

“Martin Luther on Reformed Education”

By Dr. Riemer Faber, professor of Classics at the University of Waterloo, Ontario, Canada

Introduction

It is sometimes forgotten that the Reformation was as much concerned with school as it was with church and home. Appreciating the role of education in directing church and society back to the source of the Christian faith, the reformers were committed to the schooling of the young. One of Martin Luther’s first acts as a reformer was to propose that monasteries be turned into schools, while one of his last was to establish a school in Eisleben, where he died in 1546. Not only Luther, but also Melanchthon, Zwingli, Bucer, Bullinger and Calvin actively promoted reformed education in their writings and works. Accordingly, it is no exaggeration to state that as a result of the Reformation public education was much altered by the end of the sixteenth century.

The development of reformed education neither began nor ended with the first generation of reformers. Well before Luther and his contemporaries wrote about the necessity of reformed education, Christian humanists were publishing tracts promoting educational improvement. In fact, one of the hallmarks of the Renaissance movement that was reaching northern Europe was the rebirth of learning. The reformers not only read the writings of the humanists, but as graduates of universities they had witnessed the debates about the various principles and methods of learning. As a consequence, they were forced to consider the proper function of education in the life of the believer. While the strengths and weaknesses of the reformers’ contribution to Christian education continue to be discussed, it is clear that the sixteenth century witnessed what is perhaps the most concerted effort to reform education according to norms of Scripture.

Whereas the first generation of reformers made considerable improvements to Christian education, important refinements and applications were made throughout and beyond the sixteenth century, especially in the erection of schools, the development of curricula, the publication of textbooks, and in the examination of philosophical ramifications. Nevertheless, the early reformers have earned an important place in the history of education, as they were the first to express the principles of reformed education and to develop objectives and methods. In so doing, they provided an important basis upon which later educators were to build.

The need for educational reform was urgent at the beginning of the sixteenth century. At that time there existed no school system as such, and teaching was often limited to the children of wealthy merchants and city rulers. In many places the Roman Catholic Church supervised the training of the youth in monasteries, cloisters, and other church-run institutions. But these were falling into disrepute and disrepair, as the populace reacted against the corruption and abuses among the clergy. Many parents simply stopped the training of their offspring, so that one of the first tasks of the reformers was to convince parents that the spiritual well-being of their children was more important than their physical comfort.

Martin Luther was at the forefront of those who realized the need for change in education, and with characteristic zeal he sought to effect improvements in Wittenberg and throughout Germany. While he composed only a few works that treat education directly, his other writings often reveal an attempt to relate education to the doctrinal rediscoveries of the Reformation, and especially to subject learning to the “theology of the cross.” The few treatises Luther did dedicate strictly to education had such impact that they may be deemed seminal for the development of reformed schooling in the sixteenth century. These works not only influenced teachers and preachers throughout Germany, but they also encouraged other theologians to consider the role of education in society. In this article we shall consider briefly two works by Luther on this subject. We shall examine especially the motivation for writing these tracts, the main arguments for schooling in them, and Luther’s ideas about the basis and objectives of education.

Establishing and Maintaining Schools (1524)

Of the two which will be treated here, one is the letter “To the Councilmen of All Cities in Germany That They Establish and Maintain Christian Schools” (1524). The letter was written in response to the decline of the church-run schools, as well as to the anti-educational sentiments that arose in
Wittenberg and elsewhere. One of the premises underlying the arguments in the letter is the doctrine concerning the duties of the temporal government to ensure decency and good order in society; for this reason the letter was addressed not to parents but civic leaders. More than the parents, the councillors possessed the political and financial resources to erect the schools, and impressing upon them the moral duty to promote the kingdom of God strengthened Luther’s cause. Luther therefore reminds the councillors that by their authority from God they must promote a godly society, and he seeks to convince them that proper education would benefit the state as well as the church.

It should be noted, however, that Luther not only addresses the councillors in this open letter; he also writes to the citizens, his “beloved Germans.” For whereas the responsibility of the councillors is to develop a community in which Christian education may flourish, citizens and especially parents are called by the priesthood of all believers to nurture their offspring. Luther finds the parental responsibility firmly on the Bible, citing several texts as proof. One is Psalm 78:5-7, where we read how God “commanded our fathers to teach [His laws] to their children; that the next generation might know them ... and arise and tell them to their children, so that they should set their hope in God, and not forget the works of God.” Luther also refers to the commandment to honour one’s father and mother; the parents’ responsibility in enacting this commandment is evidenced by the injunction in Deuteronomy 21:18-21 that rebellious youths be brought by them to the elders for corporeal punishment. It is the duty of the parents to teach children obedience to all authority over them. God, having established a covenant with us, “entrusted [children] to us ... and will hold us strictly accountable for them (353).” Luther also reminds parents that for proper training in the faith, Moses freely advises the young to “… ask your father and he will show you, your elders and they will tell you (Deut. 32:7)”; for parents have the duty to instruct their children in these things.

And yet Luther writes mainly to the councillors, for he realizes that there are citizens who neglect their parental duties. Some may not understand their God-given responsibility, others may not be suited for the duty, “…for they themselves have learned nothing but how to care for their bellies (355).” A third group of parents is one which does not have the opportunity or the means to educate its children. “Necessity compels us, therefore, to engage public-school teachers for the children (355).” While it may not appear unusual from the modern perspective, Luther’s advocacy of a community-organized school was novel. Assuming that the state would be ruled by Christian leaders, Luther imposes upon the government the task of overseeing reformed education. Not anticipating the conflict between state and church that was to develop later, Luther proposes a system of education that would benefit all members of society, including boys and girls, wealthy and poor. Civic schools would belong to a system of institutions throughout the land and would operate in harmony with the church. In this manner, Luther thought, education could serve the reform of religion and society.

Having alerted both parents and civic leaders to their respective duties in the education of the youth, Luther next describes the benefits of schooling for state and church. The councillors are enjoined to support education, for “a city’s best and greatest welfare, safety and strength consist rather in its having many able, learned, wise, honorable, and well-educated citizens (356)” than in “mighty walls and magnificent buildings (355).” For the proper government of the earthly realm, education should be viewed as an important means in producing responsible citizens. In short, the councillors have a vested interest in the training of the young, who will be the future civic leaders.

Influenced by the methods espoused by the Renaissance, Luther believed that the best model for preparing civic leaders was the classical one. For him, the writings of ancient Greece and Rome provided the most complete and exhaustive treatments of all aspects of civic life, including professions such as medicine, law, and the various tasks of temporal government. This time-bound, earthly government was a divinely ordained “estate,” and should carry out its duties with utmost care. The best precedent for the proper conduct of the worldly estate, Luther writes, are the ancient Greeks and Romans, who “although they had no idea of whether this estate were pleasing to God or not, they were so earnest and diligent in educating and training their young boys and girls to fit them for the task, that when I call it to mind I am forced to blush for us Christians” (367). Enthused by the contemporary rediscovery of the classics, Luther acquired a view of antiquity so favourable that the modern must beg to differ; yet he and many peers felt that the methods — if not the cultural values — of antiquity provided the best model for educating future citizens in his own time.
Not only would the state benefit from a reformed education, but also — and especially — the church. Here, too, Luther advocated the study of ancient life and letters, for he was convinced that knowledge of antiquity would provide believers with a better understanding of the historical, social and linguistic context of the Bible. Whereas the recently published German translation would make the Bible accessible to all German people, Scripture in the original languages must be preserved and studied with diligence. “My beloved Germans,” writes Luther in a personal and passionate vein, “let us get our eyes open, thank God for this precious treasure [of the Hebrew and Greek Bible], and guard it well, lest the devil vent his spite and take it away from us again (358).” The gospel must be preserved, the true doctrine must be taught, and the faith must be defended on the basis of God’s Word alone. God, argues Luther, Who “desires His Bible to be an open book,” desires that all know the Bible. Therefore Luther goes on at some length about the value of a classical curriculum for the reformed school, for he was convinced that knowledge of the liberal arts — history, languages and the like — provided the best context for the study of Scripture. Not only ministers, theologians, teachers and scholars educated in this manner would best serve the Church, but all believers as members of Christ’s body would better know God and His work in this world by means of such learning.

On Keeping Children in School (1530)

Another treatise by Luther on education is the so-called “Sermon on Keeping Children in School” (1530), published in the form of an open letter. Having received disappointing results of a survey regarding the improvement of life in church, home and school, Luther realised that his earlier call for educational reform had gone largely unheeded. Clearly, changing the thought and behaviour of people would not be so easy as Luther had hoped at first. Many parents still preferred to direct their children to the work force and the immediate material rewards it would afford, than to invest in spiritual development and moral reform. Luther’s wish for them is that they “seek first the kingdom of God and His righteousness, and all these things shall be yours as well (Matthew 6:31-33).” However, the Wittenberg disturbances, the Peasants’ Revolt, and the common misunderstanding that Reformation meant an attack upon learning, caused many parents to halt the education of their children as soon as possible. Accordingly in this treatise Luther sets his sights lower, and he focusses more on producing solid reformed preachers and teachers through whom modest improvements may be made. Yet, unlike the letter of 1524, the gist of this letter is not the establishment of schools, but the proper development of them and their curriculum.

The main addressees of the Sermon are the reformed preachers throughout the land. Luther speaks especially to them, not because he confuses the jurisdictions of church and school, but because he wishes to impress upon ministers the advantages of education for Christian spiritual development. The relevance of education for both religious and civic realms, as described in the letter of 1524, remains a key argument for sending children to school. First Luther addresses the problem of the little concern parents show for the “spiritual well-being” of their children. “I see them,” says Luther of some parents, “withdrawing their children from instruction and turning them to the making of a living (219).” Neglecting the role of Scripture in the life of their children, parents appear to underestimate the function of learning in the service of the Word, the sacraments, and “all which imparts the Spirit and salvation.” It appears that parents do not encourage their children to learn more about God and His works in the created world and history. While admonishing his fellow Germans, Luther reminds parents of the dire warning of punishment “to the third and fourth generation” of those who do not love God, adding that “you are guilty of the harm that is done when the spiritual estate disappears and neither God nor God’s word remains in the world (222).”

In Luther’s view education is crucial to the advancement of the gospel, and all should see to it that their children live first and foremost for the proclamation of the Word in the lives of others and their own. It is also for this reason that he advises all to consider the importance of the preaching office and theology, and all learning that advances them.

As for the Sermon’s discussion of the relevance of education for the state, Luther herein attacks especially the increasing materialism of his fellow Germans. Seeking physical comforts, wealth and material prosperity, parents wish for their children not spiritual, but material well-being. Throughout the letter Luther opposes education to the pursuit of Mammon, knowing that many parents focus on this world rather than the next. Granting that the offices of the temporal realm concern this world, Luther nevertheless values the purpose of the worldly estate as more than the acquiring of material property, since it is “an ordinance and splendid gift from God, who has instituted and established it and will have it maintained (237).” The true function of the secular realm is “to make men out of wild beasts” (237), that is, to effect an orderly, fair, and peaceful society in which the spiritual estate
may be fostered. Justice, social order, and the preservation of life fall under the jurisdiction of the temporal government, which must be exercised by people properly educated for such tasks. In this way the temporal realm promotes God’s kingdom on earth, as it is subservient to His word and seeks to advance life according to His will. For this reason also, “is the duty of the temporal authority to compel its subjects to keep their children in school ... so that there will always be preachers, jurists, pastors, writers, physicians, schoolmasters, and the like.... (256).” After all, in the temporal realm, “every occupation has its own honour before God, as well as its own requirements and duties (246).”

For Luther, knowledge of Scripture is both the basis and goal of education; humanistic methods may serve this objective, but they are not to be deemed an end in themselves. Unlike the humanist Erasmus, Luther did not consider education per se as contributing to the salvation and piety of the believer. The depravity of the human will, Luther argued, is so great that without the righteousness of God no-one can progress in piety, let alone be saved. Equally condemned before God, all believers are equally saved by God’s grace through faith in the death of Christ — regardless of education. Without the gospel, then, education is meaningless. And it is only from the perspective of the gospel that education must be valued. On the basis of the Bible all youths should pursue education as a means to becoming responsible men and women who can govern churches, countries, people, and households.

**Conclusion**

Within the scope of this article, it is not possible to provide an exhaustive assessment of Luther’s proposals for educational reform as expressed in the “Letter to the Councilmen” and the “Sermon”. Needless to say, critical questions have been posed, especially about Luther’s distinction between the temporal and spiritual realms, the use of humanist methods and values “in the service” of Christianity, and the nationalism that appeared to result from the developed German educational system. Luther did not address various disciplines of study, nor the practicalities of training the young. It would be appropriate, however, to conclude by noting briefly the reasons for the basis, method and objectives of education as delineated in these works.

In writing these public letters, Luther sought to promote a reformed view of education which at the same time answered the criticism of opponents. For example, there were the Waldensians, who considered the classical languages as needless for the proper understanding of Scripture. To them Luther pointed out the value of knowing Greek, Hebrew, and Latin. And in advocating the study of antiquity (its history, culture and literature), Luther intended to silence those who mistakenly wished to abandon all learning on the grounds that it was irrelevant to the study of Scripture. There were also the “spiritualists”, and those who believed in direct revelations from God; these parties placed too little value in the temporal, earthly realm. To these Luther responded by demonstrating the value of education for the understanding of God’s working in this world. There was also the continuing influence of scholasticism, with its increasingly defunct view of education that appeared both irrelevant and impractical. In promoting his views of education, Luther wished to show that reformed schooling was relevant to both the current world and the future one. And finally, the movement against which Luther inveighs especially in the “Sermon” is the ubiquitous materialism, which sought to provide training in the acquisition of worldly goods while ignoring the eternal ones. In sum, whereas Luther’s views would be much refined by pedagogues later in the sixteenth century and beyond, they did provide a substantial basis for the further reform of education.

**Footnotes**

To the Burgomasters and Councilmen of all cities in Germany. Martin Luther. Grace and peace from God our Father and the Lord Jesus Christ.

Therefore, I pray you all, my dear sirs and friends, for God's sake and the poor youths', not to treat this subject as lightly as some do, who are not aware of what the prince of this world intends. For it is a serious and important matter that we help and assist our youth, and one in which Christ and all the world are mightily concerned. By helping them we shall be helping ourselves and all men.

Our third consideration is by far the most important of all; it is the command of God. Its importance is seen in that He so frequently through Moses urges and enjoins parents to instruct their children that it is said in Psalm 78:5, “How straitly he commanded our fathers that they should give knowledge unto their children and instruct their children's children.”

“Ah,” you say, “but all that is addressed to parents; what business is it of councilmen and magistrates?” Very true: but if the parents neglect it, who is to see to it? Shall it on that account remain undone and the children be neglected? In that case, how will magistrates and councilmen excuse themselves by saying it is no business of theirs? There are various reasons why parents neglect their duty … Necessity compels us, therefore, to engage public schoolteachers for the children, unless everyone were willing to engage an instructor of his own … For since the property, honor and life of the whole city are committed to their faithful keeping, they would fail in their duty toward God and man if they did not seek its welfare and improvement with all their powers day and night. Now the welfare of a city consists not alone in gathering great treasures and providing solid walls, beautiful buildings, and a goodly supply of guns and armor. Nay, where these abound and reckless fools get control of them, the city suffers only the greater loss. But a city's best and highest welfare, safety and strength consist in its having many able, learned, wise, honorable and wellbred citizens; such men can readily gather treasures and all goods, protect them and put them to a good use.

The civil government must certainly continue. Shall we then permit none but clods and boors to rule, when we can get better men? That would indeed be a barbarous and foolish policy…. Even if we took the utmost pains to train up none but able, learned and skilled rulers, there would still be room enough for toil and labor in order that the government might prosper. How shall it prosper if no one takes any pains at all? “But,” you say again, “granted that we must have schools, what is the use of teaching Latin, Greek, Hebrew, and the other liberal arts? We can still teach the Bible and God's Word in German, which is sufficient for our salvation.” I reply: Alas! I know well that we Germans must always remain brutes and stupid beasts, as neighboring nations call us and as we richly deserve to be called. But I wonder why we never ask: What is the use of silks, wine, spices, and strange foreign wares, when we have in Germany not only wine, grain, wool, flax, wood and stone enough for our needs, but also the very best and choicest of them for our honor and ornament? Arts and languages, which are not only not harmful, but a greater ornament, profit, honor and benefit, both for the understanding of Scripture and for the conduct of government, these we despise; but we cannot do without foreign wares, which we do not need, which bring us in no profit, and which reduce us to our last penny.

And let us be sure of this: we shall not long preserve the Gospel without the languages. The languages are the sheath in which this sword of the Spirit is contained; they are the casket in which we carry this jewel; they are the vessel in which we hold this
wine; they are the larder in which this food is stored; and as the Gospel itself says, they are the baskets in which we bear these loaves and fishes and fragments. If through our neglect we let the languages go (which may God forbid!), we shall not only lose the Gospel, but come at last to the point where we shall be unable either to speak or write a correct Latin or German.

Now since the young must romp and leap or at least have something to do that gives them pleasure, and since this should not be forbidden (nor would it be well to forbid them everything), why should we not furnish them such schools and lay before them such studies? By the grace of God it has now become possible for children to study with pleasure and in play languages, the other arts, or history…. For my part, if I had children and could accomplish it, they should study not only the languages and history, but singing, instrumental music, and all of mathematics.

It is highly necessary, therefore, that we take up this matter in all seriousness and without loss of time, not only for the sake of the young, but in order to preserve both our spiritual and our temporal estate. If we miss this opportunity, we may perhaps find our hands tied later on when we would gladly attend to it, and may be compelled in vain to suffer, in addition to the loss, the pangs of remorse forever.
Dear friends: I see that the common people are indifferent to the maintenance of the schools, and are turning them only to the making of a living and to care for their bellies. Besides, they either will not or cannot think what a horrible and unchristian undertaking this is, and what great and murderous harm they are doing throughout the world....

He has not given you children and the means to support them, only that you may do with them as you please, or train them for worldly glory. You have been earnestly commanded to raise them for God's service, or be completely rooted out, with your children and everything else; then everything that you have spent on them will be lost.... But how will you raise them for God's service if the office of preaching and the spiritual estate have gone down? And it is your fault; you could have done something for it and helped to maintain it, if you had allowed your child to study. If you can do it, and your child has the ability or the desire, and you do it not, but stand in the way, listen to this, — You are guilty of the harm that is done if the spiritual estate goes down, and neither God nor God's Word remains in the world. In so far as you are able, you are letting it go down; you will not give one child to it, and you would do the same thing about all your children, if you had a world full of them; thus, so far as you are concerned, the service of God simply goes to destruction.

By what I have said I do not want to insist that every man must train his child for this office, for not all the boys must become pastors, preachers and school-masters. It is well to know that the children of lords and great men are not to be used for this work, for the world needs heirs and people, otherwise the government will go to pieces. I am speaking of the common people, who used to have their children educated for the sake of the livings and benefices, and now keep them away, only for the sake of support. They do not need heirs, and yet they keep their children out of school, regardless of the fact that the children are clever and apt for these offices, and could serve God in them, without privation or hindrance. Such boys of ability ought to be kept at study, especially if they are poor men's sons, for all the foundations and monasteries and livings endowments were established for this purpose. Beside them, indeed, other boys ought also to study, even though they are not so clever, and ought to learn to understand, write, and read Latin; for it is not only highly learned Doctors and Masters of Holy Scripture, that we need. We must also have ordinary pastors, who will teach the Gospel and the Catechism to the young and the ignorant, and baptize, and administer the Sacrament.... Even though a boy who has studied Latin afterwards learns a handicraft, and becomes a burgher, we have him in reserve, in case he should have to be used as a pastor, or in some other service of the Word. His knowledge does not hurt him in the earning of a living; on the contrary, he can rule his house all the better because of it, and besides, he is prepared for the work of preacher or pastor, if he is needed.
Sources for Assessing Lesson 2: Education in the Reformation (cont’d)

A Tale of Two Schools

President Martelly and the Haitian government are trying to ensure that they can provide stable and ongoing funding for teachers and materials. Photo source: Thierry Charlier, AFP/Getty Images.

At their rural Haitian school, Chery Lemeck and her two fellow teachers have 150 students, half of them girls, and many of them attending school for the very first time.

That’s the good part.

However, the three teachers haven’t been paid in a year, the children have no books or pencils, and the classroom is just a tarp-covered enclosure.

“I would say that the school has worked pretty well with respect to the amount of children who come. But we lack most things that a school needs,” Lemeck recently told our team in Haiti, who visited the school 30 minutes outside the town of Hinche.

It is one of the many set up under a program to deliver cost-free education to all Haiti, launched in September 2011 by Haitian President Michel Martelly.

Last year we wrote about this program and the hope it held for Haitian families. Lemeck’s comments reflect the feelings of Haitians who recognize progress has been made, but are frustrated with an initiative not living up to its promises.

This is the tale of two projects — an answer to those who question how aid can make any difference in Haiti.

Before the earthquake struck in 2010, Haiti had classroom space for barely half of its schoolchildren, and much of that was in private schools — unaffordable for many impoverished Haitians. Public schools charged a modest $1.50 per term, but were few and far between, especially in rural areas.

By providing free education, the Haitian government claims to have brought one million new students in to school, especially girls.

Although classes like Lemeck’s are bursting at the seams, it’s not necessarily all with “new” students. At least some, if not many, switched from fee-based schools to take advantage of the lack of fees. Poor infrastructure makes it impossible to know exactly how many young Haitians are now being schooled.

But bigger problems plague the Martelly schools.

The program was to be funded through government taxes levied on international monetary transfers and international phone calls. The funding has proven unreliable.

As a result, the schools have no stable operating budget and so many, like Lemeck’s, lack basic classroom materials. Worse, many teachers have gone unpaid for the year, causing high absenteeism.
Many of the free schools are not housed in their own permanent structures but in spaces loaned by churches or community groups. Some of these groups now refuse to host the schools because of poor upkeep—for example vandalism by students, a side-effect of the often-absent teachers.

With no long-term plan or commitment from the Haitian government or international donors, teachers and students alike don’t know if the schools will even exist next year.

“Every government has a different agenda, and there is no continuity,” laments Belony Eunive, who teaches alongside Lemeck.

But less than 12 kilometres away, in the village of Marialapa — a completely different picture of what is possible for students.

“Here there is progress. Look at this beautiful school. It is very important. I am very satisfied,” parent Pierre Louis told our team, as he pointed at his village’s new schoolhouse.

The Marialapa school is also free. It was founded by a local community group and built with funding from the Michael “Pinball” Clemons Foundation, established by the legendary former Argos player. The school boasts four large permanent classrooms with another four slated for construction next year, along with a well accessible to the entire community. Eight government-employed teachers are on staff. Next year the school will begin student nutrition and preventative health programs.

In a rural area with traditionally low school enrolment, 310 children are now registered. The students have books, pencils and other materials. Although the teachers have not yet been paid, funding is certain.

Where Martelly schools are struggling, Marialapa National School is progressing, thanks to accountability; long-term planning and commitments of support; and full cooperation and coordination between the community, NGOs and the Haitian government.

Before even breaking ground for the school, a long-term plan was devised for the school and an agreement was struck with the Haitian government to ensure that they can provide stable and on-going funding for teachers and materials. The Education Superintendent for the district is supporting and monitoring the school.

President Martelly’s school project is exactly that—a short term project. It doesn’t have long-term planning, sustainable and stable long-term funding, and it part of a larger cooperative effort with other players. Marialapa incorporated these approaches, and has seen greater success.

In the past few weeks there has been much conversation in the press about the failures of aid. The key is engaging local people with local ownership and local empowerment, supported by long-term and stable national and international funding.
Sources for Assessing Lesson 2: Education in the Reformation (cont’d)

Global Voices: Recommitting to Global Education
Marc and Craig Kielburger
September 6, 2015

Hellen Lemian, 14, raced across town to her grandmother’s house — the elderly woman was her last hope. All of Lemian’s arguments with her father had failed. She was frightened and desperate.

The family of 13 lives in Naikarra, a rural town in southern Kenya. Lemian knew if her grandmother couldn’t convince her father (her mother is deceased) of the importance of education, then her schooling was finished. Lemian knew her father would pull her from school and marry her off.

Fortunately, African grandmothers are formidable women. Standing in the doorway of her house, Lemian’s grandmother argued her son into submission, and Lemian was allowed to continue her studies. Lemian’s family are Maasai livestock herders. With low incomes and few schools in walking distance, getting an education here remains a challenge, especially for girls.

As Canada’s streets fill again with yellow buses, we’re reminded how fortunate Canadians are in the educational opportunities available to our children — opportunities that do not exist for millions of others. And while the world has made great progress on education over the past decade, there are alarming signs we’re losing some of the gains we’ve made.

When the Millennium Development Goals (MDGs) to end extreme poverty were launched in 2000, the United Nations recorded more than 196 million children and teens not attending school. The biggest barrier is poverty. In Kenya, for example, highschool fees are approximately $120 a year, a princely sum for families such as Lemian’s that exist on less than a dollar a day. And for many children, schools are far from their homes, requiring much more in boarding costs.

Lemian was only able to attend Kisaruni All Girls Secondary School because it finds sponsors for students in need.

The decade that followed the introduction of the MDGs saw significant global government and private investment in building and equipping schools, and supporting national education systems. By 2011, the number of children out of school had been reduced by more than 70 million. Impressive, but a long way from achieving the MDG goal of universal primary education.

What’s disturbing is that, since 2011, the number of children not in school is rising again. According to the UN, 2.4 million more children were out of school last year than in 2011.

One cause is declining global aid from rich nations. Funding for primary education is 11% lower today than at its peak in 2010. Only 8% of the world’s development dollars are now spent on education — the least since 2002. Disappointingly, Canadian government support for education in development has plummeted by almost half — $344 million in 2014 compared to $655 million in 2010. The UN predicts that, over the next 15 years, education funding will fall short of what’s needed to achieve universal primary education by a staggering $7.5 billion a year.

Despite progress toward gender parity in global education, there’s still a long way to go. The UN expects that, by the end of this year, 69% of countries will have achieved equal enrolment for boys and girls in primary school. But only 48% will have achieved parity in high schools. For some countries, equality isn’t even visible on the horizon. In Ethiopia, Haiti and Yemen, for example, the UN experts say 88% of the poorest young women have not completed primary school.

Lemian’s story has a happy ending. With perseverance, and the support of her grandmother and teachers, she was able to see her education through. Now 18, Lemian stood proudly in the ranks of Kisaruni’s first graduating class in January. She’s currently enrolled in a vocational internship program with her sights set on becoming a teacher.

“It is important for me because our community still has few teachers. I can help other children,” Lemian tells us.

Later this month, international leaders meet in New York City to determine how the world will follow up on the Millennium Development Goals. One of the key questions must be how to hold on to the gains we have made in global education — and ultimately achieve the goal of a full education for all.
# Comparing Luther’s Teachings on Education

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**“TO THE COUNCILMEN OF ALL CITIES IN GERMANY THAT THEY MAY ESTABLISH AND MAINTAIN CHRISTIAN SCHOOLS”**

*Sermon on Keeping Children in Schools*
Assessing Lesson 2: Education in the Reformation

Multiple-Choice Question Set

“We are experiencing today throughout Germany how schools are everywhere allowed to go to wrack and ruin; universities are growing weak….

“It therefore becomes the business of councilmen and magistrates to devote the greatest care and attention to the young … a city’s best and highest welfare, safety and strength consist in its having many able, learned, wise, honorable and well-bred citizens; such men can readily gather treasures and all goods, protect them and put them to a good use…

“Therefore, my beloved Germans, let us open our eyes, thank God for this precious treasure, and guard it well, lest it be again taken from us…”

Martin Luther, To The Council Of All Cities In Germany That They Establish And Maintain Christian Schools, 1524

1. What ideology did Luther use to bolster his argument for the creation of schools?
   a. Sola Scriptura
   b. Priesthood of the Believer
   c. Christian humanism
   d. German nationalism

2. What tradition did Martin Luther draw on when he outlined his ideas in this passage?
   a. Christian humanism
   b. Skepticism
   c. Secularism
   d. Predestination
Sources for Lesson 3: Role of Royal Scientific Academies in Disseminating Knowledge in the Scientific Revolution

The French Academy of Science

Colbert Presenting the Members of the Royal Academy of Sciences to Louis XIV in 1667, by Henri Testelin

Académie des Sciences 1698, engraving

The Academy and Its Protectors, Watson, "Early Days," drawn by Goyton and engraved by Le Clerc
The Chemical Laboratory, Watson, “Early Days;” Eklund, *Incompleat Chymist*; engraved by Le Clerc

A Dissection and Microscopic Observations, Watson, “Early Days;” engraved by Le Clerc
Chapter One

The Parisian Académie royale des sciences was established by Louis XIV on the advice of Jean Baptiste Colbert, his minister of finance, in December 1666. An absolute monarch who saw everything as a potential instrument of statecraft, Louis displayed by this act his support for scholarship. His munificence was also a calculated maneuver for glorifying his reign. He expected the Academy to enhance his regal reputation while providing concrete benefits for commerce, industry, medicine, and warfare. Members of the Academy sought practical gains, but they wanted these to be grounded in correct theories. They welcomed royal financing of their scientific investigations, were honored by their official status, and relied on royal subventions to augment their personal incomes. The Academy thus embodied both royal and scholarly expectations.

The Academy of Sciences has survived to the present day and has played a significant role in the life and thought of the last three centuries, making numerous theoretical and practical contributions to science. Its early history is important, for during the first three decades of its existence the crown secured the Academy’s financial base, members learned to balance the conflicting demands of state and of scholarship, and the institution established a corporate identity.

The Academy was founded, furthermore, when science was in transition. Theories were challenged, novel apparatus was devised, and perplexing new phenomena were observed. Scientific language was inadequate, and the logic of scientific explanation was itself a topic of discussion. Science was scarcely regarded as a profession in its own right: the word “scientist” had not even been coined. Instead scientific savants called themselves “geometers,” “astronomers,” “chemists,” “botanists,” and, especially, “natural philosophers.” As such, they thought of themselves as practitioners of useful skills or as philosophers of nature. Few supported themselves, however, through their scientific activities. Thus the creation of a scientific institution by a king who paid savants for doing scientific research was a departure from tradition. It made academicians the envy of their contemporaries and affected the conduct of scientific research.

Understanding the Institution

In founding the Academy, the crown created an organization that would foster learning. But like any institution, the Academy evolved a distinctive character that reflected its origins, composition, and accomplishments. It developed written and unwritten procedures, enjoyed acclaim and suffered opprobrium, grew and declined. Its members contributed in different ways to the work — some were more diligent, others more imaginative, and a handful assumed leadership while the rest were made to follow — and a few were highly rewarded or esteemed. The institution became associated with particular sites and molded them to its own purposes, but the sites also affected its work and procedures. It interacted with persons and groups outside it — patrons, savants, aspirants, suppliers, or other organizations — and those exchanges affected it. It existed for purposes — scholarly, political, and utilitarian, for example — that may have changed over time but offer a standard for judging how well it worked.

Public Image

The most intelligible introduction to the Académie royale des sciences is through published portraits. Sébastien Le Clerc developed the Academy’s public image in several contemporary engravings. The best known of these dates from 1671 and shows what seems to be a visit of Louis XIV and Colbert to the Academy (plate 1). Others depict academicians examining objects in microscopes, discussing, performing a dissection, working in the chemical laboratory, and carrying out other scientific tasks. These engravings were intended both for nonscientific audiences — the king-patron, the recipients of presentation copies of engravings commissioned by the crown, and collectors — and for more knowledgeable readers of the Academy’s books, which the prints illustrated. Each engraving presents a self-contained portrait, each is a deliberate public image of a royal establishment, and all allude to traits that are essential to understanding the Academy.
Le Clerc’s formal portrait of the king, Colbert, and the Academy is both factual and fantastic. The artist at once portrays and misrepresents the Academy in ways that have stimulated and perplexed historians. On the factual level, Le Clerc represents the Academy’s experimentalist credo, its accomplishments, and its members. A lavish display of objects suggests the Academy’s interests. Skeletons of dissected animals adorn the walls. Scientific instruments are everywhere. Maps, laboratory apparatus, plants, and models of machines reveal that the Academy’s research program was broadly defined. The engraver portrayed academicians accurately, differentiating subjects by their garb, so that the viewer can distinguish clerical and lay academicians, identify members of the royal family, and grasp the social status of each person.

It is not surprising that a portrait of the Academy by Le Clerc should reveal such an eye for detail and sensitivity to nuance. Le Clerc himself was not only a skilled draftsman and engraver but also an engineer who studied mathematics, natural philosophy, and cosmography. Furthermore, the Academy sponsored some of the best scientific illustration of the century, and Le Clerc helped make its anatomical illustrations acknowledged masterpieces of the time.

Le Clerc also portrayed the Academy in ways that are misleading, although even his misrepresentations convey truths about the institution. For example, he stressed the Academy’s experimentalist bias at the expense of its fairly cautious theorizing. He did not delineate the entire scope of the Academy’s research but rather created the impression of catholic interests and emphasized subjects, especially those with practical applications, on which Colbert spent the largest sums of money. The Academy did not limit its scientific inquiries, but its patrons preferred some fields over others, and they made their preferences evident in material ways that Le Clerc captured.

By grouping academicians and showing them in conversation, Le Clerc conveyed a collaborative spirit at the Academy, where members worked together. What Le Clerc did not show was that personal rivalries and professional disagreements enervated academicians, many of whom found it more productive to work individually than in teams. The physical setting of Le Clerc’s portrait is also misleading. The view outside the room where academicians are assembled shows the Observatory. In fact, no such prospect was possible from any of the Academy’s three principal locations — the King’s Library, the King’s Garden, and the Observatory — none of which could be seen from any other. By including the Observatory in the portrait, Le Clerc sacrificed accurate topography but conveyed royal munificence, for the Observatory was constructed entirely with royal funds.

Finally, the central event did not occur as Le Clerc suggests, for the king did not visit the Academy until ten years after Le Clerc depicted the supposed occurrence. Even then, in December 1681, Louis was a reluctant visitor; although Colbert had long tried to persuade him to see his creation at first hand, the king continually dragged his heels. No scientific amateur, he lacked the knowledge to ask the kinds of well-informed and detailed questions that James II of England, for example, would pose on a visit to the Observatory in 1690. Louis was a patron of science not out of intellectual interest but out of self-interest predicated on the practical advantages that would accrue from his intervention. His appearance in the engraving does not correspond to the facts but is meant to convey, through artistic license, a royal seal of approval.

Le Clerc’s portrait of the Academy contributes to a program of royal propaganda. He makes it obvious that the king was the Academy’s generous patron, entitled to share whatever acclaim its work received. The resulting public image of the Academy is that of a splendidly equipped royal foundation, dedicated to the experimental ideal and to the cooperative pursuit of broad interests. He makes it obvious that the Academy has a dual function: to make scientific discoveries and to honor the king.
Sources for Lesson 3: Role of Royal Scientific Academies in Disseminating Knowledge in the Scientific Revolution

Maria Winklemann-Kirch — “The Eclipse of a Star Astronomer”

Maria Margarethe Winkelmann-Kirch (1670–1720) was a star of German astronomy who discovered her own comet. As “assistant” to her husband and later to her son, she contributed to establishing the Berlin Academy of Science as a major centre of astronomy.

Star-struck lover

Maria Margarethe Winkelmann was born in Leipzig, in the German state of Lower Saxony. Her father, a Lutheran minister, believed in education for women and began teaching her from an early age. When her father died, her uncle continued to teach her. She showed an early interest in astronomy. To pursue this interest, Maria became the student, apprentice and assistant of Christopher Arnold, a self-taught astronomer who worked as a farmer — eventually moving in with him and his family.

Married to the stars

Through Arnold, Maria met one of the most famous German astronomers of the time, Gottfriedkirch. Despite a three-decade age gap, they married in 1692, and embarked on a joint career in astronomy. In 1700, at the foundation of the Berlin Academy of Science, he was appointed the Academy’s astronomer where she would serve as his unofficial but appreciated assistant. Their marriage produced four children, all of whom followed in their parents’ footsteps and studied astronomy.

Both during her husband’s life and after he died, Maria devoted herself to the pursuit of astronomy. While she was rewarded with a certain measure of fame and respect, including an offer of work from the Russian Tsar Peter the Great, she paid a heavy price in terms of adversity, ridicule and even periods of poverty.

Star-struck lover

Maria Margarethe Winkelmann was born in Leipzig, in the German state of Lower Saxony. Her father, a Lutheran minister, believed in education for women and began teaching her from an early age. When her father died, her uncle continued to teach her. She showed an early interest in astronomy. To pursue this interest, Maria became the student, apprentice and assistant of Christopher Arnold, a self-taught astronomer who worked as a farmer — eventually moving in with him and his family.

Married to the stars

Through Arnold, Maria met one of the most famous German astronomers of the time, Gottfried Kirch. Despite a three-decade age gap, they married in 1692, and embarked on a joint career in astronomy. In 1700, at the foundation of the Berlin Academy of Science, he was appointed the Academy’s astronomer where she would serve as his unofficial but appreciated assistant. Their marriage produced four children, all of whom followed in their parents’ footsteps and studied astronomy.

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Master in an apprentice’s garb

Despite the fact that her gender excluded her from studying at university, many astronomers of the age were not university educated, and most of the actual practice of the discipline took place outside these formal institutions. In fact, astronomy at that time was structured more along the lines of traditional guilds than the professional academic discipline we know it as today.

This is reflected in the fact that neither Christopher Arnold nor Gottfried Kirch had ever studied at a university. Following their marriage, Kirch took over where Arnold had left off and continued Maria’s instruction — but the apprentice soon became at least the equal of the master.

The sky’s the limit

At the Berlin Academy of Science, Maria and Gottfried worked closely together, though only he held the official position of astronomer. In Berlin, Maria was in the habit of observing the heavens every evening from 9pm. Often she and her husband observed together, each contemplating another part of space. Using their observations of the night skies, they performed calculations to produce calendars and almanacs, with information on the phases of the moon, the setting of the sun, eclipses, and the position of the sun and other planets.

This was a real money-spinner for the Academy, which derived much of its income from the royal monopoly granted it on the sale of calendars, which was a lucrative trade. This meant that astronomers, despite lacking the highbrow prestige of other scholars, were a valuable asset. Starting in 1697, the couple also began recording weather information. The couple also struggled to improve the Academy’s astronomical facilities. The active role Maria played in this being is testified to in letters to the Academy’s president Gottfried von Leibniz.
Tail of a comet

In 1702, Maria became the first woman to discover a previously unknown comet, ‘Comet of 1702’ (C/1702 H1). However, the comet’s discovery was published by Gottfried, who did not credit Maria in his tract, probably because he feared that as the Academy’s official astronomer he could not acknowledge his wife’s contributions openly. In any event, Gottfried made up for this, in 1710, by revealing the true discover of the comet as ‘my wife’, but it was not renamed. Despite this major oversight, Maria’s skill and accomplishments were widely recognised — albeit informally. In a 1709 letter of introduction to the Prussian court, where she was to give a talk on sunspots, the Academy’s president Leibniz, a great admirer of her work, wrote: “Her achievement is not in literature or rhetoric but in the most profound doctrine of astronomy … I do not believe that this woman easily finds her equal in the science in which she excels.”

Out in the cold

Although she dedicated some two decades of her life to making the Academy one of the foremost centres of astronomy, once her husband died in 1710, the institute abandoned her. Her request for her son to be appointed astronomer and she only his assistant was turned down by the Academy, which did not wish to set a precedent and feared ridicule from other institutions. Leibniz was the lone voice defending her.

She spent the following 18 months petitioning the royal court for the position, and received a final rejection in 1712. Expressing her disappointment, she said: “Now I go through a severe desert, and because … water is scarce … the taste is bitter. It was about this time that she wrote in the preface to one of her publications that a woman could become “as skilled as a man at observing and understanding the skies.”

Written in the tsars

The position would not just have been an honour, but it would have helped support her four children who were now left without a breadwinner. Unemployed and unappreciated, Maria went to work until 1714 at the private observatory of family friend and keen amateur astronomer Baron Bernhard Frederick von Kroisigk. In 1716, she received an offer to work for Russian tsar, Peter the Great, but preferred to remain in Berlin where she continued to calculate calendars. Ironically, her son, Christfried, did eventually become director of the Academy’s observatory and took his mother and sisters in as his assistants. But the high profile Maria kept led the Academy’s council to force her to leave. She continued to work in private but conditions eventually forced her to abandon astronomy.

Scientific achievements

Maria Winkelmann-Kirch was not only one of the foremost and best-known astronomers of her age, but she was also the first woman to discover a comet. Despite the disappointments she experienced during her career in the shadows, her publications brought her some recognition during her lifetime and were an enduring contribution to astronomy. They included her observations on the Aurora Borealis (1707), a pamphlet on the conjunction of the sun with Saturn and Venus (1709), and a well-received pamphlet in which she predicted a new comet (1711).
Sources for Lesson 3: Role of Royal Scientific Academies in Disseminating Knowledge in the Scientific Revolution

Margaret Cavendish — “The Scientific Revolutionary”

The 17th century writer Lady Margaret Cavendish (1623–1673) helped to popularise the ideas of the scientific revolution. Colourful, outspoken and widely ridiculed for her eccentricities, she was one of the first to argue that theology is outside the parameters of scientific inquiry. As England’s first recognised woman natural philosopher, she also argued strongly for the education of women and for their involvement in science.

Grey matter in motion

Margaret Lucas was the youngest of eight children born to a wealthy family near Colchester, England. She received a rudimentary education at home from an elderly lady, and showed a very early interest in writing. The closeknit royalist family scattered when King Charles I was exiled to Oxford, and Margaret became maid-of-honour to Queen Henrietta Maria. In 1644, when royalist forces were defeated, she fled to France with the Queen and a few other attendants. In 1645, Margaret met and married the 52-year-old nobleman William Cavendish in France. The two moved from Paris to Antwerp where Margaret was introduced to science in an informal salon society of other exiles dubbed the ‘Newcastle Circle’. Thomas Hobbes, René Descartes, and Pierre Gassendi were part of this circle in which Margaret learned about the newly popular ‘mechanical philosophy’ and atomism, which explained all natural phenomena as being matter in motion. At the same time, she was also given private lessons in science and philosophy by her husband and his brother. Margaret visited England in 1651 and quickly gained a reputation for extravagant dress and eccentricity. The following year, she began to write her own works on natural philosophy. The Cavendish family returned from exile in 1660 when the monarchy was restored.

A most insistent voice

On her return to England, Margaret began to study the works of other natural philosophers (the term ‘scientist’ had not yet been coined) and continued to write. In 1663, she published Philosophical and Physical Opinions, wherein she reasoned that if atoms were animated matter then they would have free will and liberty, and thus would be unable to cooperate in the creation of complex organisms. The following year, she published another work in which she challenged the ideas expressed by contemporary natural philosophers. She had the two books dispatched by special messenger to the most celebrated scholars of the day. In 1666, Margaret published her Observations upon Natural Philosophy, which strongly criticised the shortcomings of the new science. “The dusty motion of atoms” could not be used to explain all natural phenomena, she argued, and so every atom must be “animated with life and knowledge.” She also claimed that the newly invented microscope distorted nature and led to false observations of the world.

Scientific high society

In 1660, the Royal Society of London was founded, inspiring the creation of a network of societies across Europe. Until then, natural philosophers had for the most part discussed their revolutionary ideas on science in people’s homes which, to a certain extent, had allowed some women to learn about the latest debates. As few people generally and still fewer women were educated at the time, the members of these new societies were small in number and mainly composed of men. They distanced themselves from the classical tradition of academic learning, and were often ridiculed for their experiments.

Margaret wanted more than anything to be recognised by the scientific community. In 1667, she enjoyed a personal triumph when she was the first woman to be invited to visit the Royal Society. Her visit was one of the best attended in the Society’s history. She and her entourage watched a programme of experiments staged by the respected scholars Robert Boyle and Robert Hooke. Afterwards, the society officially banned women. The ban held until 1945.

A tempered view

The year after her famous visit to the Royal Society, Margaret published a book that was more modest in tone and scope than her previous works. In it, she retracted some of her more extravagant claims.
Lady Cavendish’s health deteriorated as a result of her acting as her own physician, and she died in 1673. She had been proud of her writing and unashamed of her lack of education; she demanded a voice on public matters and sought fame. It is perhaps for these reasons that, in the 19th century, she was given the insulting nickname ‘Mad Madge’, although she was certainly not considered mad by the standards of her own day.

**Scientific achievements**

Lady Margaret Cavendish was a prolific writer who was inspired by the ideas that emerged during the scientific revolution. Despite being mocked, many found reading her works irresistible and she managed to popularise the discussion of many new ways of thinking. The tributes to his wife published by her husband after her death contain letters of gratitude from the Universities of Leiden, Cambridge and Oxford, from the Bodleian Library, St John’s and Trinity Colleges at Cambridge, and from numerous recognised men of learning.

She published 23 books, and explained that she wrote “since all heroic actions” and “public employments … are denied our sex in this age.” In addition to her prose, she wrote plays and poems contemplating atomic theory, Aristotelian philosophy and Harvey’s theory of the circulation of the blood. As she was recognised in England as a natural philosopher, her case argued strongly for the education of women. Her memoirs are considered to be the first major secular autobiography written by a woman.

### Comparing Maria Winklemann-Kirch and Margaret Cavendish

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Lesson 3 Activity: Working Independently

Multiple-Choice Question Set


1. Which of the following was not challenged by work done in institutions like the one pictured to the right?
   a. Geocentric view of the universe
   b. Alchemy and astrology
   c. The Church’s account of the earth’s position
   d. Humoral theory of disease

2. What did thinkers depicted in this image often utilize when challenging traditional ideas?
   a. The Bible
   b. Medieval university system
   c. Church doctrine
   d. Experimentation and observation

3. Which of the following people would most likely have been found in a place like the one pictured in the image above?
   a. Erasmus
   b. Galen
   c. Isaac Newton
   d. Margaret Cavendish

Essay Option for Assessment

As described by your teacher, create an outline and/or fully developed essay for the following prompt:

- Compare the challenges female scientists faced during the Scientific Revolution with challenges faced by women today who have unequal access to opportunities.
Nurture versus Nature, or, The Political versus the Natural Man

Locke and Rousseau differ chiefly on the concept of nurture versus nature and on the role of gentlemen in relationship to politics. Locke’s understanding of natural inclinations is not entirely optimistic. Whereas parents should cherish, and even cater to, their child’s curiosity and love of liberty, children must be taught to subdue their natural desire for dominion. Locke’s method of education takes these natural faculties, likes and dislikes, into consideration. He proposes habits to break children of laziness and to keep them from becoming spoiled, while insisting on other actions which will encourage the love of liberty in children, such as allowing them “seasons of freedom” to play or work, whichever the child chooses. Locke also understands children to have the natural desire to be treated rationally. He insists that children “understand it [reason] as early as they do language.” Although children themselves do not have the capability yet of employing reason, they can recognize developed rationality in others, and they take pride in participating in the experience.

For Rousseau, inclinations only strengthen and extend in children as the children grow in sense and intelligence. Children should learn to cherish their natural senses and feelings, even after developing reason. For instance, in the Confessions Rousseau praises Madame de Warens for her pure heart and her “upright and virtuous” inclinations. In contrast, he criticizes her for following her reason, which was false and invented, “instead of listening to her heart which gave her good counsel…. When false principles led her astray, her true feelings always gave them the lie.” Rousseau also openly scoffs at the thought of talking to children as if they were rational beings. Rousseau contends that the circular questioning of children can never be answered, and one would have to threaten children to have any sort of effect on their reason. Hence, it is best to leave the reasoning out until children have reached the proper age of twelve or fifteen.

These differences of opinion on natural inclinations between Locke and Rousseau lead these philosophers to varying strategies of education, with their projects emphasizing nurture or nature, respectively. Interestingly, both philosophers still understand the role of parents to be foundational for the right development of children. This conviction, however, is expressed differently depending on the role of nature and nurture for each. For Locke, parents serve as the child’s reason and craft a social setting to guide his ideas. They practically create the society that surrounds their child, where “no ill examples [are] set before them,” such as the talk of the servants or other ill-ordered children. Instead, Locke recommends that children “be in the company of their parents and those to whose care they are committed.” Locke makes these suggestions in order to shield children from the infection of vices, and, as mentioned previously, parents can begin bringing children into suitable conversation.

Likewise, Rousseau believes in the rural setting because it enables parents to protect their children from the “filthy morals of the town,” yet his emphasis on natural education places parents in a different role than in Locke’s account. Rousseau insists that parents should not instruct young children through teaching in social settings or through commands — unlike Locke’s insistence that children learn to dance and practice sociable manners — but parents should allow the child to grow naturally by protecting the integrity of this state and keeping the evils of city life out. They should allow necessary lessons to come in the child’s way, but should not instruct the child on how to think about things.

Thus, while the role of parents for each of these philosophers consists of shielding children from the vices of others, the role differs according to the use of nature versus nurture. For Locke, children are trained through nurturing more than nature, using reputation and habits. The expectations of valuable society (the child’s parents, the tutor, and trusted friends) serve as a vehicle of learning through reputation, and habits become a basis of training for correct actions ... Rousseau directly critiques Locke for teaching by habit. Rousseau, however, describes an early childhood designed to minimize the obstacles of civilization and bring man as near to nature as possible. Instead of educated men being guided by societal reputation, Rousseau desires for a child...
Sources for Lesson 4: Education in the Enlightenment Era (cont’d)

to have no other guide than his own inclinations by the time he is partially grown. Formal moral education does not begin until the child reaches adolescence, and even then he only “gradually approach[es] moral notions involving the distinction of good and evil.” Even then, the training of moral education still seems to follow the naturalist, instead of nurturing …

Finally, we find a remarkable difference between the purpose and aim of education for both philosophers. Locke writes his Thoughts Concerning Education specifically to train gentlemen who will become leaders in the political and social arena, providing for the overall project of democracy and liberalism. Gentlemen govern society in many senses, owning businesses or even participating in politics. As leaders, gentlemen can perpetuate virtue in society and increase the prospects of the lower classes. Thus, one can say that the “welfare and prosperity of the nation … depends on [their education].” Although Locke does retain the hierarchy of rank or order through the class of gentlemen, he does not perpetuate the class structure in his philosophy. Locke does not intend for gentlemen to disregard the lower classes or put them at a disadvantage. Instead, Locke intends for this group to serve as a key to the democratization and gradual leveling of society. The Lockean gentleman is concerned with protecting life, liberty, and property for all individuals in society.

In contrast, though raised in the countryside, Rousseau’s child is not meant to reside entirely outside of society for life. He is instead “a savage made to inhabit cities, a street-wise adult who is happy and autonomous.” Upon entering society, the young man should interact with those worthy of interaction, until eventually he is “educated in, though not corrupted by, the ways of the world, traveling abroad and studying politics and society.” Yet Rousseau’s education is not meant to train the citizen. Rousseau has been criticized for making his education “either-or: either education for individuality, or education for community.” Rousseau’s concern with the well-being of the community is expressed through the General Will principle of the Social Contract, which provides “the total alienation of each associate, together with all of his rights, to the entire community.” When men enter contractually, they must sacrifice all of their rights to the whole. The community itself becomes the embodied rights, and each man has equally forfeited and holds an equal, separate association.

Thus, the educational methods of Locke and Rousseau emphasize either nurture or nature, based on differing views of inclinations and on varying aims for the future of the educated child. Locke’s child is trained to become an individual of action in society, while Rousseau’s child is trained to lead the simple, Locke and Rousseau natural life of beauty and simplicity slightly outside of society. These distinct goals provide the theoretical basis of their different educational philosophies. The reader’s respective valuations of the two philosophers are likely to be related to his or her sense of whether education trains people for citizenship in particular or for life in general.
Sources for Lesson 4: Education in the Enlightenment Era (cont’d)


**ARTICLE II**

Of the Expense of the Institutions for the Education of Youth

**V.1.130**

The institutions for the education of the youth may, in the same manner, furnish a revenue sufficient for defraying their own expense. The fee or honorary which the scholar pays to the master naturally constitutes a revenue of this kind.

**V.1.131**

Even where the reward of the master does not arise altogether from this natural revenue, it still is not necessary that it should be derived from that general revenue of the society, of which the collection and application are, in most countries, assigned to the executive power. Through the greater part of Europe, accordingly, the endowment of schools and colleges makes either no charge upon that general revenue, or but a very small one. It everywhere arises chiefly from some local or provincial revenue, from the rent of some landed estate, or from the interest of some sum of money allotted and put under the management of trustees for this particular purpose, sometimes by the sovereign himself, and sometimes by some private donor.

**V.1.151**

The ancient Greek philosophy was divided into three great branches; physics, or natural philosophy; ethics, or moral philosophy; and logic. This general division seems perfectly agreeable to the nature of things.

**V.1.180**

The education of the common people requires, perhaps, in a civilized and commercial society the attention of the public more than that of people of some rank and fortune. People of some rank and fortune are generally eighteen or nineteen years of age before they enter upon that particular business, profession, or trade, by which they propose to distinguish themselves in the world. They have before that full time to acquire, or at least to fit themselves for afterwards acquiring, every accomplishment which can recommend them to the public esteem, or render them worthy of it. Their parents or guardians are generally sufficiently anxious that they should be so accomplished, and are, in most cases, willing enough to lay out the expense which is necessary for that purpose. If they are not always properly educated, it is seldom from the want of expense laid out upon their education, but from the improper application of that expense. It is seldom from the want of masters, but from the negligence and incapacity of the masters who are to be had, and from the difficulty, or rather from the impossibility, which there is in the present state of things of finding any better. The employments, too, in which people of some rank or fortune spend the greater part of their lives are not, like those of the common people, simple and uniform. They are almost all of them extremely complicated, and such as exercise the head more than the hands. The understandings of those who are engaged in such employments can seldom grow torpid for want of exercise. The employments of people of some rank and fortune, besides, are seldom such as harass them from morning to night. They generally have a good deal of leisure, during which they may perfect themselves in every branch either of useful or ornamental knowledge of which they may have laid the foundation, or for which they may have acquired some taste in the earlier part of life.
V.1.181

It is otherwise with the common people. They have little time to spare for education. Their parents can scarce afford to maintain them even in infancy. As soon as they are able to work they must apply to some trade by which they can earn their subsistence. That trade, too, is generally so simple and uniform as to give little exercise to the understanding, while, at the same time, their labour is both so constant and so severe, that it leaves them little leisure and less inclination to apply to, or even to think of, anything else.

V.1.182

But though the common people cannot, in any civilized society, be so well instructed as people of some rank and fortune, the most essential parts of education, however, to read, write, and account, can be acquired at so early a period of life that the greater part even of those who are to be bred to the lowest occupations have time to acquire them before they can be employed in those occupations. For a very small expense the public can facilitate, can encourage, and can even impose upon almost the whole body of the people the necessity of acquiring those most essential parts of education.

V.1.183

The public can facilitate this acquisition by establishing in every parish or district a little school, where children may be taught for a reward so moderate that even a common labourer may afford it; the master being partly, but not wholly, paid by the public, because, if he was wholly, or even principally, paid by it, he would soon learn to neglect his business. In Scotland the establishment of such parish schools has taught almost the whole common people to read, and a very great proportion of them to write and account. In England the establishment of charity schools has had an effect of the same kind, though not so universally, because the establishment is not so universal. If in those little schools the books, by which the children are taught to read, were a little more instructive than they commonly are, and if, instead of a little smattering of Latin, which the children of the common people are sometimes taught there, and which can scarce ever be of any use to them, they were instructed in the elementary parts of geometry and mechanics, the literary education of this rank of people would perhaps be as complete as it can be. There is scarce a common trade which does not afford some opportunities of applying to it the principles of geometry and mechanics, and which would not therefore gradually exercise and improve the common people in those principles, the necessary introduction to the most sublime as well as to the most useful sciences.
Sources for Lesson 4: Education in the Enlightenment Era (cont’d)

Mary Wollstonecraft, *Vindication of the Rights of Women*, Chapter 5: “Writers who have rendered women objects of pity, bordering on contempt” – I. Rousseau (excerpts) and Chapter 12: National Education

**Chapter 5 – Section I**

I SHALL begin with Rousseau, and give a sketch of the character of women, in his own words, interspersing comments and reflections. My comments, it is true, will all spring from a few simple principles, and might have been deduced from what I have already said; but the artificial structure has been raised with so much ingenuity, that it seems necessary to attack it in a more circumstantial manner, and make the application myself.

Sophia, says Rousseau, should be as perfect a woman as Emilius is a man, and to render her so, it is necessary to examine the character which nature has given to the sex. He then proceeds to prove that woman ought to be weak and passive, because she has less bodily strength than man; and, hence infers, that she was formed to please and to be subject to him; and that it is her duty to render herself agreeable to her master—this being the grand end of her existence.

‘It being once demonstrated,’ continues Rousseau, ‘that man and woman are not, nor ought to be, constituted alike in temperament and character, it follows of course that they should not be educated in the same manner. In pursuing the directions of nature, they ought indeed to act in concert, but they should not be engaged in the same employments: the end of their pursuits should be the same, but the means they should take to accomplish them, and of consequence their tastes and inclinations, should different.”

**Chapter 12**

But nothing of this kind could occur in an elementary day school, where boys and girls, the rich and poor, should meet together. And to prevent any of the distinctions of vanity, they should be dressed alike, and all obliged to submit to the same discipline, or leave the school. The school-room ought to be surrounded by a large piece of ground, in which the children might be usefully exercised, for at this age they should not be confined to any sedentary employment for more than an hour at a time. But these relaxations might all be rendered a part of elementary education, for many things improve and amuse the senses, when introduced as a kind of show, to the principles of which, dryly laid down, children would turn a deaf ear. For instance, botany, mechanics, and astronomy. Reading, writing, arithmetic, natural history, and some simple experiments in natural philosophy, might fill up the day; but these pursuits should never encroach on gymnastic plays in the open air. The elements of religion, history, the history of man, and politics, might also be taught, by conversations, in the Socratic form.

After the age of nine, girls and boys, intended for domestic employments, or mechanical trades, ought to be removed to other schools, and receive instruction, in some measure appropriated to the destination of each individual, the two sexes being still together in the morning; but in the afternoon, the girls should attend a school, where plain-work, mantua-making, millinery, etc. would be their employment.

The young people of superior abilities, or fortune, might now be taught, in another school, the dead and living languages, the elements of science, and continue the study of history and politics, on a more extensive scale, which would not exclude polite literature.
Girls and boys still together? I hear some readers ask: yes. And I should not fear any other consequence than that some early attachment might take place; which, whilst it had the best effect on the moral character of the young people, might not perfectly agree with the views of the parents, for it will be a long time, I fear, before the world is so far enlightened that parents, only anxious to render their children virtuous, will let them choose companions for life themselves.

I have already inveighed against the custom of confining girls to their needle, and shutting them out from all political and civil employments; for by thus narrowing their minds they are rendered unfit to fulfil the peculiar duties which nature has assigned them.

Only employed about the little incidents of the day, they necessarily grow up cunning. My very soul has often sickened at observing the sly tricks practised by women to gain some foolish thing on which their silly hearts were set. Not allowed to dispose of money, or call anything their own, they learn to turn the market penny; or, should a husband offend, by staying from home, or give rise to some emotions of jealousy — a new gown, or any pretty bauble, smooths Juno’s angry brow.

But these littlenesses would not degrade their character, if women were led to respect themselves, if political and moral subjects were opened to them; and, I will venture to affirm, that this is the only way to make them properly attentive to their domestic duties. — An active mind embraces the whole circle of its duties, and finds time enough for all. It is not, I assert, a bold attempt to emulate masculine virtues; it is not the enchantment of literary pursuits, or the steady investigation of scientific subjects, that lead women astray from duty. No, it is indolence and vanity—the love of pleasure and the love of sway, that will rain paramount in an empty mind. I say empty emphatically, because the education which women now receive scarcely deserves the name. For the little knowledge that they are led to acquire, during the important years of youth, is merely relative to accomplishments; and accomplishments without a bottom, for unless the understanding be cultivated, superficial and monotonous is every grace.”
Sources for Lesson 4:
Education in the Enlightenment Era (cont’d)

Gender Pay Gap and Lack of Access to Education
Driving UK Inequality.
Katie Allen

The UK must tackle its gender pay gap and improve access to education if it is to reduce inequality, according to a new report from the World Economic Forum (WEF) on how governments can foster inclusive growth.

The Forum, the body behind the high-powered annual Davos summit, has produced 15 measures of how well countries foster equality as they grow their economies.

Its findings on the UK highlight bright spots in business ownership and “progressive income taxes.” But the country is found wanting in various aspects of education, healthcare and the labour market.

“Efforts are required to improve access to education as well as its quality, which would be important for tackling the youth unemployment problem and the low levels of social mobility in the country,” says the Inclusive Growth and Development report.

“Equality of health outcomes could be improved, given the significant gaps in adjusted life expectancy. Greater equity in the labour market through stronger participation of women and reduction in the gender pay gap would also foster more inclusive growth,” it adds.

Highlighting the relatively high proportion of working parents’ pay going on childcare, the WEF also recommends better access to affordable childcare.

The study comes against the backdrop of repeated warnings from policymakers and economists that the fruits of economic expansion must be more evenly shared and that the gap between rich and poor could actually serve to curb growth. The Forum describes its two-year study into the performance of 112 economies as a bid to broaden that debate about inequality beyond merely observing symptoms to instead finding specific ways to change policies and institutions in order to improve living standards. Its benchmarks for countries range from trade union membership to property taxes.

“The report aims to make discussions about inequality less about aspiration and more about concrete action,” says Rick Samans, a member of the WEF board and a former economic adviser to Bill Clinton.

The analysis concludes that there is no single example of best practice for tackling inequality, with all countries lacking in some area.

But among the 30 advanced economies studied, some stand out as performing better than others overall, notably Nordic countries, Switzerland, Australia and the Netherlands, says Samans, one of the report’s co-authors.
FACT SHEET: Providing More Americans with Affordable Access to Education and Job Training Opportunities to Help Grow the Middle Class

Education and job training are among the surest pathways to the middle class. To mark the beginning of the school year, the President, the First Lady, Dr. Jill Biden, and Secretary Arne Duncan will travel across the country in the coming days to highlight the need for affordable, quality career and education choices for students and to discuss some of the many ways the Administration is working to provide all Americans with the skills and knowledge they need to acquire good-paying jobs and grow the economy.

Today, at Macomb Community College in Warren, Michigan, the President will announce new steps to expand apprenticeships and to continue to build momentum nationwide to make community college free for responsible students. Specifically, the President will announce:

- Grants to provide “earn and learn” training opportunities to 34,000 new apprentices: The Department of Labor is awarding $175 million in American Apprenticeship Grants to 46 public-private partnerships marrying the efforts of employers, organized labor, non-profits, local governments, and educational institutions to expand high-quality apprenticeships. The winning grantees have pledged to train and hire more than 34,000 new apprentices in high-growth and high-tech industries including health care, IT and advanced manufacturing over the next five years.

- The creation of the College Promise Advisory Board to further efforts to make two years of community college free: Today, the President will announce the independent creation of the College Promise Advisory Board, led by Chair Dr. Jill Biden, and Vice-Chair former Wyoming Governor Jim Geringer and directed by former Under Secretary of Education, Martha Kanter. The board will bring together luminaries and leaders to highlight successes in places like Tennessee, Chicago, and Michigan, share best practices and models, and recruit more of their peers to join the cause. Learn more at CollegePromise.org.

- The launch of Heads Up America, an independent Campaign to raise awareness about the importance of America’s community colleges: An initiative of the College Promise Advisory Board and digital agency, Huge, the Heads Up America campaign will work to create a movement to support community colleges around the country. It will give students, teachers, counselors, administrators, alumni, businesses, and other leaders a role in spreading the word about the value and impact that universal access to community college will have on our future. Heads Up America will call on everyone to join the movement to make two years of community college free for responsible students around the country. As part of Heads Up America, the College Promise Advisory Board will release a PSA featuring students, community college alumni and celebrities. Learn more at HeadsUpAmerica.us.
Comparing Locke and Rousseau’s Attitudes Toward Education

<table>
<thead>
<tr>
<th></th>
<th>JOHN LOCKE</th>
<th>JEAN-JACQUES ROUSSEAU</th>
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<tr>
<td>Natural Inclinations of Children</td>
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<td>Role of Parents in Education</td>
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<td>Methods of Education</td>
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<td>Duty of an Educated Man</td>
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<td>Nature vs. Nurture</td>
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<td>Role of Gentlemen in Politics</td>
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Assessing Lesson 4: Education in the Enlightenment Era

Multiple-Choice Question Set

Source
“Rousseau insists that inclinations are ‘our nature’ to which everything else should conform.... For Rousseau, inclinations only strengthen and extend in children as the children grow in sense and intelligence. Children should learn to cherish their natural senses and feelings, even after developing reason. For instance, in the Confessions Rousseau praises Madame de Warens for her pure heart and her ‘upright and virtuous’ inclinations. In contrast, he criticizes her for following her reason, which was false and invented, ‘instead of listening to her heart which gave her good counsel.... When false principles led her astray, her true feelings always gave them the lie’....”


1. Who would have disagreed with the argument Rousseau makes about “our nature?”
   a. John Locke
   b. Voltaire
   c. Montesquieu
   d. Adam Smith

2. Based on this passage, what did Rousseau think about education and the use of reasoning by women?
   a. Women should be encouraged to use reason and rationality.
   b. Education should be offered to women on the same basis as men.
   c. Women should trust their instincts, rather than rely on their own reasoning.
   d. Women should be given educational opportunities, but only in religious settings.

3. What Enlightenment thinker specifically challenged Rousseau’s ideas about women and rationality?
   a. Adam Smith
   b. Madame Geoffrin
   c. Denis Diderot
   d. Mary Wollstonecraft
Sources for Lesson 5: Education in the Age of Mass Politics in the 19th Century

Max Roser (2015), ‘Literacy.’ Published online at OurWorldInData.org.
Regional Literacy Trends in Europe

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<th>REGION</th>
<th>OBSERVATIONS ABOUT LITERACY TRENDS</th>
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<td>Southern Europe</td>
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Comparing Literacy Rates Between European Regions

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<td>Southern Europe</td>
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<td>Eastern Europe</td>
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Literacy in historical perspective

Europe and North America

Transitions from largely illiterate to predominantly literate societies occurred earliest in Europe and North America. Using wide-ranging sources, social historians of literacy have identified three historical periods (pre-1800, 1800–1860s, post-1860s) and three groups of countries to discuss the history of these literacy transitions (Graff, 1987b; Vincent, 2000). Prior to 1800, reading (though not always writing) skills were widespread in several northern European countries (e.g. Denmark, Finland, Iceland, Scotland, Sweden and Prussia), as well as in parts of England, France and Switzerland. In a second group — Belgium, Ireland, the Netherlands, and the remaining parts of England, France and Switzerland — literacy skills were used by members of the higher social classes and were more limited among other social strata, except in scattered communities, monasteries or households that possessed books and other printed matter. Finally, in most of eastern and southern Europe (Russia, the Balkans, the eastern Austro-Hungarian empire, the Iberian Peninsula and southern Italy), illiteracy was widespread, especially outside the cities and towns, and written materials were almost nonexistent. Throughout Europe, gender disparities in literacy were the norm. From 1800 to 1860, the more advanced and industrialized European countries made modest progress in reducing illiteracy, with more adults who could affix full signatures (rather than simple marks) to legal documents, provide written responses to census questions and pass literacy tests in army recruitment centres. Other countries in northern and western Europe saw significant reductions in male illiteracy, with similar (though varying) trends for female illiteracy (Vincent, 2000). The relative literacy ranking of countries changed little (although, in Sweden, the early neglect of writing skills, due to the Protestant Church’s emphasis on the importance of reading, was overcome during the nineteenth century). By the 1860s, only a minority of adults in industrializing countries lacked rudimentary literacy skills. In eastern and southern Europe, however, the pace of change in literacy was slow and mainly extended to certain professions and elite populations. In the latter decades of the nineteenth century, the spread of adult literacy in most of northern and western Europe was extensive. Yet in some countries, such as Belgium and Ireland, only three-quarters of all males could sign their full names. Around 1900, literacy levels in Hungary, Italy, Russia, Spain and the Balkan countries were significantly below those in other parts of Europe. During the First World War, many European countries encouraged the acquisition of literacy skills among military recruits so they would be able to read instructions on weaponry use and to correspond with their families (Limage, 2005). While literacy levels improved in much of Europe during the late nineteenth century, subnational disparities in literacy by gender, age, social class, ethnicity and area of residence continued. For example, urban areas had a distinct advantage in literacy over rural areas. Books — and the social institutions encouraging their use — were more prevalent in cities and towns than in rural communities. Religious, secular, professional and private forms of learning were more available to urban residents, as was the supply of print media. The greater prevalence of literacy in urban areas had in turn an impact on the nature of the labour market and scale of commercial transactions. Thus, the dynamics of literacy acquisition and the forces of industrialization and urbanization tended to reinforce one another (Limage, 2005b). During the early twentieth century, literacy levels increased throughout Europe, with few changes in the ranking of countries. By midcentury, central and northern Europe were reported to have achieved over 95% literacy; western Europe, over 80%; Austria and Hungary, over 70%; and Italy, Poland and Spain, over 50% literacy. In Portugal and the Eastern Orthodox countries, adult literacy rates were not above 25%; only after 1945 did the ability to use written languages extend to the masses (Johansson, cited in Graff, 1987b; Vincent, 2000). In the United States and Canada, literacy levels increased steadily during the nineteenth and early twentieth centuries. In the United States, 80% of adults were estimated to be literate in 1870 and over 95% in 1940; in Canada, the literacy rate rose from 83% in 1901 to 95% in 1931 (UNESCO, 1957). Disparities in adult literacy levels by race, region, labour force participation, household economic status and foreign birth remained.
By the 1960s, these disparities had lessened, with the exception of certain groups, such as those with disabilities and Native Americans. Overall, the historical record in Europe and North America suggests that there was no single route to widespread mass literacy. In many Nordic countries and Protestant areas, high literacy levels preceded the expansion of formal schooling and reflected religious inclinations and pressures. In other areas, the growing provision of public and private instruction, administered by centralizing nation-states or religious organizations, contributed to the spread of literacy. Among early industrializing countries, the transition to widespread literacy was a gradual process spanning centuries; among late industrializing countries the spread of literacy came later but at a more rapid pace. The literacy gaps between early and late industrializers only began to close during the twentieth century, with growing popular demand for, and increased public supply of, literacy (Mitch, 1992).

Establishing schools and increasing enrolment rates

The single most significant factor influencing the spread of literacy worldwide over the past two centuries has been the expansion of formal schooling. Schools have been, and continue to be, the sites in which most people acquire their core literacy skills – reading, writing and ‘reckoning’. There have been, however, historical exceptions to this pattern. During the seventeenth century, in certain Nordic countries, German principalities and North American colonies, the Protestant Churches supported the compulsory education (not schooling) of children to ensure the piety of families. Out of religious conviction, parents saw to it that their children learned to read and write at home (with or without a tutor) and in church. Here the historical transition to widespread literacy pre-dated the consolidation of state school systems. Only in the eighteenth century did communities in Norway, various Swiss cantons, Dutch provinces and German Länder establish local schools, with largely religious curricula emphasizing literacy, biblical knowledge and moral character. This movement towards mass schooling was intended to replace home- and church-based instruction. Later in the nineteenth and early twentieth centuries, systems of compulsory mass schooling were established – first in Western and then Eastern Europe (Ramirez and Boli, 1994; Benavot and Resnik, 2005). By legally establishing the principle of compulsory attendance, nascent states became the initiator, guarantor and administrator of a system of schools. At the same time, in the United States, northern states and western territories passed statutes requiring parents to send their children to school, although primary enrolment rates, even in rural areas, were already relatively high. The southern states eventually followed suit in the twentieth century (Richardson, 1980). Thus, with the exception of the mainly Protestant areas noted above, as formal schooling became more available and enrolments increased during the nineteenth century, adult literacy rates slowly began to rise.
Assessing Lesson 5: Education in the Age of Mass Politics in the 19th Century

Multiple-Choice Question Set

“While literacy levels improved in much of Europe during the late nineteenth century, subnational disparities in literacy by gender, age, social class, ethnicity and area of residence continued. For example, urban areas had a distinct advantage in literacy over rural areas. Books — and the social institutions encouraging their use — were more prevalent in cities and towns than in rural communities. Religious, secular, professional and private forms of learning were more available to urban residents, as was the supply of print media. The greater prevalence of literacy in urban areas had in turn an impact on the nature of the labour market and scale of commercial transactions....”

— From Education For All Global Monitoring Report, Ch. 8 — The Making of Literate Societies, pages 190–192, 2006

1. What larger process drove the urban expansion discussed in this passage?
   a. The emergence of scientific socialism
   b. The development of the Industrial Revolution
   c. The crisis left in the wake of the Age of Metternich
   d. The impacts of the Crimean War on western Europe

2. National governments ultimately mandated education by the end of the 19th century
   a. as part of a larger prison reform movement
   b. so that their militaries would be better trained and prepared for conflict
   c. in order to remove homeless children and their families off the streets of major urban hubs
   d. to improve overall public order and loyalty
Education Continuity and Change Over Time

- Renaissance
- Reformation
- Scientific Revolution
- Enlightenment
- Age of Mass Politics
- 20th Century
Problem Tree

Students will learn more about the issue they are tackling as they apply what they have learned, along with their critical thinking skills, to consider the causes and effects of the problem presented through the issue.

Leaves/branches: Effects

These are the results created by the problem. At first, this part of the issue appears easy to tackle, but when leaves and branches are trimmed, they grow back quickly. Consider the multi-layered effects, or “effects of effects,” that can arise when a problem goes unaddressed. Always ask: “Then what happens?”

Trunk: Problem

This is the key issue that is being studied. Because it is not as apparent as the leaves, the core problem itself sometimes takes a little longer to identify.

Roots: Causes

These are the situations or factors that have led to the problem. When exploring the root causes of a problem, ask yourself “Why does this problem exist?” Dig deeper to consider the “causes of causes”—the multiple layers of factors that contribute to a problem.
Needs Assessment

The following series of questions helps you to analyze and identify ongoing areas of need within organizations addressing your issue.

1. Identify three organizations working on issues related to the issue your team is working on.

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2. What does each organization do well in response to the issue and/or related issues locally?

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

3. What does each organization do in response to the issue and/or related issues globally?

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

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4. Compare each organization’s approach to tackling the issue and assess the effectiveness of each approach.

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

5. Identify a criticism of or what’s lacking in each organization’s approach. Site the source and share their argument.

________________________________________________________________________________________________________________________________________

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6. What could all three organizations do better?

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

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Solution Tree

In your Solution Tree graphic organizer, start by rewriting the problem from your Problem Tree, and reframing it as a goal at the trunk of the tree. Then consider the different solutions (the roots) and possible outcomes of the solutions (the branches).

Leaves/branches: Outcomes

These are the results created by the solution. Results may appear as straightforward as having achieved goals, but when you consider the ripple effects and outcomes of sustainable results, the impact is far-reaching and long-lasting. Always ask: “Then what happens?”

Roots: Solutions

These are the actions needed to solve the problem and achieve the goal stated at the center of the Solution Tree. When exploring solutions, ask yourself “How will this solve the problem?” Dig deeper to think holistically, so that you are looking beyond the short-term and addressing not only the symptoms of the problem but the root causes as well.
**Reflect: Investigate and Learn**

Now that you’ve investigated problems and potential solutions associated with education, think back over what you’ve learned: *How can what you are learning in your AP® European History class support solutions that improve poverty locally and globally?*

As you write, think about the following questions to help shape your reflection. Record your thoughts on the lines below. Use additional paper to write a lengthier response.

What are the impacts of lack of access to education, locally and globally?

As you investigated existing programs addressing access to education, what did you feel these programs do well, and what did you feel they could do better?

Who should be responsible for improving education locally and globally? What role do you think you could play in improving education, locally and globally?

Based on what you learned about education and the actions others are already taking, what are five areas of need that you could address?

What attracts you to these areas?

What are some actions that your team could take to address these areas?

What excites you about these actions and the impact you can have?
Summarizing Your Investigation

In your teams, you will summarize what you have learned from your investigation. Your work may be supported by multimedia or print materials that synthesize and analyze the topic and issue on local and global levels.

When summarizing your investigation, keep the following in mind:

- What are the key takeaways from your investigation?
- How are the problems you investigated similar at local and global levels? How are they different?
- How are the solutions you investigated similar at local and global levels? How are they different?
- Why may your investigation be important to other AP® European History students?
## Approaches to Taking Action Information Sheet

### DIRECT SERVICE

**WHAT IS IT?**  
Personally engaging with and providing hands-on service to those in need (usually in conjunction with an organization).

**EXAMPLE GOAL**  
By the end of the semester, we will support a local food bank and shelter by packing and serving food to people in the community. We will also visit our neighboring elementary school and teach a lesson on food insecurity in our community.

**ACTIONS**

- Reach out to local shelters and food banks to arrange a day for the class to visit and provide hands-on support
- Once a date has been decided, make sure students all have permission to travel to the food bank (if during school hours)
- Connect with teachers/administration at local elementary school and arrange to visit a classroom to teach a lesson to young students on food insecurity
- Create and print worksheets to use with younger students

### INDIRECT SERVICE

**WHAT IS IT?**  
Channeling resources to the needs of a community—locally, nationally, or internationally.

**EXAMPLE GOAL**  
By the end of the year, we will create a storage and donation system for local families in need, where they can access furniture and other household items. We will develop a system for donations, pick-ups, and inventory.

**ACTIONS**

- Conduct research into which items are most needed by community members (e.g., bed frames, dining tables, household goods, etc.)
- Reach out to local businesses to try to get a storage space donated
- Connect with school social workers/administration to gain their support
- Put up flyers around school and in the community, asking for donations (list specific items needed), including instructions on how/where to donate
- Develop an online database for tracking donations and pick-ups, and maintaining inventory
- Share pick-up information with local shelters, churches, community centers, etc.
- Share the donation system with school social workers, so that they can maintain the project in future years

### ADVOCACY

**WHAT IS IT?**  
Educating others about an issue to increase visibility and following up with an action that focuses on enacting change. Actions around advocacy often look like raising awareness, but without a strong call to action within the initiative as a whole. Educating others is not considered service in and of itself.

**EXAMPLE GOAL**  
Through an informative art piece, we will educate our school community about the waste created by single-use plastic water bottles, and the impact they have on the environment. Then, we will sell reusable water bottles at school, and the proceeds from the sale will go toward clean water projects in developing countries.

**ACTIONS**

- Research the impact of single-use plastic water bottles around the school and in the local community
- Plan out and create a 3D sculpture that incorporates informative text on the issue of single-use plastics
- Seek permission from school administration to display the piece in a common area of the school
- Design and order water bottles to sell at school
- Research and select an international organization that focuses on clean water projects
- Organize a selling schedule for the water bottles, donate profits
Creating the Action Plan

This outline serves as a basic template for your action plan. Use additional space and resources to help you build out each part with the right amount of detail and flow to ensure you have the strongest action plan that you and your team can implement with ease. Remember, this is your road map for your service project!

<table>
<thead>
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<th>TEAM GOAL:</th>
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<th>MEASURES OF SUCCESS:</th>
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**Required Network and Resources**
In order to complete this goal, our team will need to develop the following network and access the following resources:

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<tr>
<th>RESOURCES:</th>
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**ROLES AND RESPONSIBILITIES**
Each team member will take on the following roles and associated responsibilities:

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<th>ROLE AND RESPONSIBILITIES</th>
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**TIMELINE**
Our team will use the following timeline to complete tasks and successfully carry out the action to meet our goal(s):

<table>
<thead>
<tr>
<th>TIMELINE</th>
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Five Action Planning Pitfalls Tip Sheet

Once your team has completed the major components of your action plan (creating your teams and setting goals, timeline, and network), review the five action planning pitfalls provided below to ensure these have been avoided. Review your plans—individually first, then together as a team. After the review, rework your action plans, if necessary.

1. **Setting an unclear goal**
   The first and most important part of any action plan is defining the goal, or what you want to achieve. It should be clear and easy to understand, for example, “We want to collect 500 cans of food,” or “We want 200 people to learn about WE Villages.” If the goal is not clearly defined, proper planning will be difficult if not impossible. As a best practice, have a peer from another team review your goal to ensure it is as clear as you hope.

2. **Planning unrealistic actions**
   After the goal is set, begin planning the actions necessary to achieve it. It is important that the steps make sense and are achievable. Do not plan unrealistic actions, such as working at times that will interfere with schoolwork, overestimating how many people can help out, or planning to go to places that would be difficult for you to reach. Consider each team member’s school and community schedule, such as work and extracurricular activities. Before planning an action, ask yourself, “Is this action realistic?”

3. **Rushing the process**
   Do not be too hasty in planning actions. While you may be excited to start, proper planning takes time. The better the planning and organization, the more success you will achieve. Even if it means slowing down to figure out details, do not rush and leave out important steps.

4. **Not asking for help**
   Do not be afraid to ask for help. When a network is created, bigger goals can be achieved faster. Reach out to friends, parents, and mentors. People generally enjoy helping, especially if it is for a worthy cause.

5. **Not learning from mistakes and giving up too quickly**
   We all make mistakes—it is normal and healthy. Mistakes allow us the opportunity to learn and grow. So, learn from the mistakes. Ask, “Why did this happen?” and “How can I avoid this problem next time?” Actively think about the mistakes and how it will be better the second time around. If something does not go as planned, do not stop!
Reflect: Action Plan

Your team now has a plan for taking action globally and locally. Think back over what you have learned: What problems associated with access to education does your team’s action plan address? How does your individual role in the plan support your team’s action?

Record your thoughts on the lines below. If you run out of room on this page, use additional paper to write a lengthier response. As you write, think about the questions on the previous page to help shape your reflection.

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# Student Log Sheet

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