Turning Points TRANSFORMING MIDDLE SCHOOLS

Guide to Curriculum Development

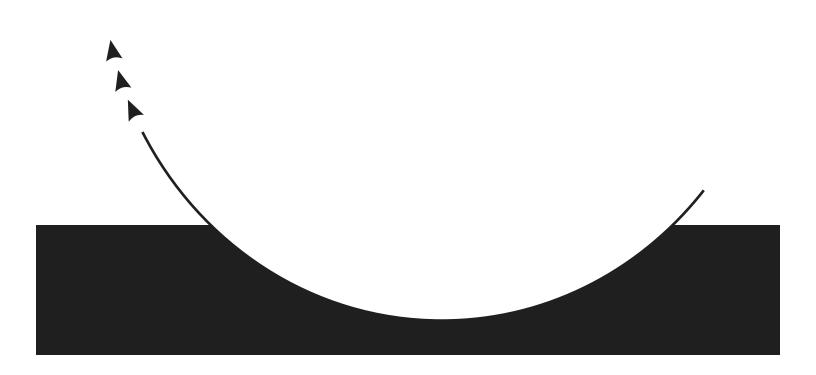


Table of Contents

Acknowledgements
Prefacev
Introduction1
Curriculum Development in Turning Points Schools3
Five Principles of Curriculum Development4
1. Curriculum should be grounded in
an understanding of the middle school child 5
2. Curriculum should be based on what we want
students to know and be able to do
3. Students and teachers should be engaged
in authentic, intellectual work
4. Assessment should demonstrate that students
can do important work
5. A coherent curriculum should be developed
across the entire school
Turning Points Curriculum Planning
Components of Turning Points Curriculum Planning 14
Theme
Essential Questions
Learning Goals
Assessment
Selection and Sequence of Learning Experiences 27
Curriculum Planning Template
A Turning Points Curriculum Unit

Acknowledgements

The Center for Collaborative Education wishes to thank all the Turning Points middle schools that have contributed to the development of this guide.

In addition, we would like to thank our team of external reviewers:

Gayle Davis, Middle Grade School State Policy Initiative

Tim Flynn, Vermont Department of Education

Tony Jackson, Disney Learning Partnership

Deborah Trotter-Kasak, Association of Illinois Middle Schools

Doug Kilmister, Expeditionary Learning

Michael Levine, Carnegie Corporation of New York

Dean Millot, New American Schools

Frederick Park, Cambridgeport School, Cambridge, Massachusetts

This guide was made possible in part by the generous support of the Carnegie Corporation.

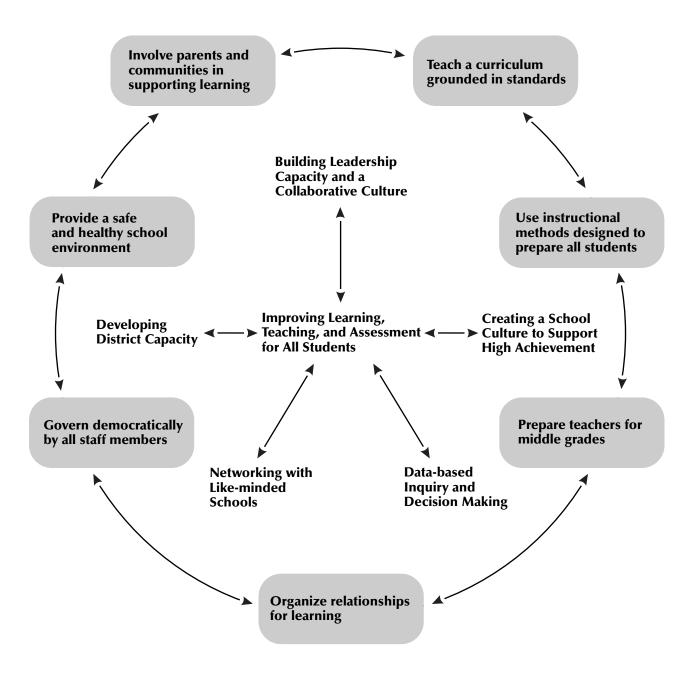
Preface

Turning Points is a national design for middle school change, coordinated by the Center for Collaborative Education in Boston, Massachusetts, which serves as the National Turning Points Center. The design focuses on restructuring middle schools to improve learning, teaching, and assessment for all students. It is based on the seminal *Turning Points* report issued by the Carnegie Corporation in 1989, which concentrated on the considerable risks that young adolescents face as they reach the "turning point" between childhood and adulthood.

A crucial part of this reform initiative involves the practice of Improving Learning, Teaching, and Assessment for All Students. Student learning increases when schools focus on understanding the unique needs and capabilities of middle school students. Turning Points schools set high expectations for every student and create curriculum, instruction, and assessment that enable students to meet those expectations.

The purpose of this guide is to communicate the Turning Points approach to curriculum development, teaching, and assessment. It offers specific tools which teachers and schools can use as they design curriculum, develop assessment tasks, and create the classroom practices that will lead to significant student learning and growth.

Turning Points Design Principles and Practices



Turning Points Principles^{*}

Teach a curriculum grounded in rigorous, public academic standards, relevant to the concerns of adolescents and based on how students learn best

Use instructional methods designed to prepare all students to achieve high standards and become lifelong learners

Staff middle grade schools with teachers who are expert at teaching young adolescents, and engage teachers in ongoing professional development

Organize relationships for learning to create a climate of intellectual development and a caring community of shared educational purpose

Govern democratically through direct or representative participation by all school staff members, the adults who know students best

Provide a safe and healthy school environment as part of improving academic performance and developing caring and ethical citizens

Involve parents and communities in supporting student learning and healthy development

Six practices translate these principles into action in each school and throughout a network of Turning Points schools in a district. Within each area of practice, teacher teams, a school leadership team, and faculty committees, engage in collaborative work.

The Six Turning Points Practices

Improving Learning, Teaching, and Assessment for All Students: working collaboratively to set high standards, close the achievement gap among students, develop curriculum that promotes habits of mind and intellectual inquiry, utilize a wide range of instructional strategies and approaches, emphasize the teaching of literacy and numeracy

Building Leadership Capacity and a Professional Collaborative Culture: creating a democratic school community, fostering skills and practices of strong leadership, establishing regular common planning time, embedding professional development in the daily life of the school

Data-based Inquiry and Decision Making: setting a vision based on the Turning Points principles, collecting and analyzing multiple sources of data to help improve areas that most impact learning, teaching, and assessment, setting annual measurable goals

Creating a School Culture to Support High Achievement and Personal Development: creating structures that promote a culture of high-quality learning and teaching, establishing small learning communities, eliminating tracking, lowering student-teacher ratios, building parent and community partnerships

Networking with Like-minded Schools: participating in network meetings, summer institutes, and forums; visiting other Turning Points schools

Developing District Capacity to Support School Change: building district capacity through collaboration

^{*} Reprinted by permission of the publisher from Anthony Jackson and Gayle Davis, *Turning Points 2000: Educating Adolescents in the 21st Century*, (New York: Teachers College Press), 24–25. © 2000 by Carnegie Corporation of New York. All rights reserved.

Introduction

Marianne Harrison teaches math and science at Jackson Middle School and shares 55 seventh graders with a social studies/language arts teacher. Her students' latest project is a good example of how she organizes her instruction to meet the unique needs of middle school students. Based on the grade-level team's cross-discipline theme of "What Is Balance?" Ms. Harrison has devised a study around the use of chemicals and how the local community balances their benefits and dangers. Knowing that middle school students are very social, she has grouped them into teams to research chemicals found in their community. One team is studying phosphates found in common household cleaning products. This group plans to research the chemical makeup of phosphates and the history of their use. Another team is studying the use of lead in the community and the occurrence of lead poisoning in the city's children.

All groups will collect data on how their chemical is used and the ways it both benefits and endangers people and the environment. The students will then analyze and synthesize their data. Ms. Harrison has asked them to make coherent arguments and significant conclusions about the use of chemicals in our society. To ensure that their school work has value beyond the school, all groups will present their findings to an organization in the community that has interest in the topic. The work in class is organized to address diverse instructional needs of middle school students and to take advantage of their desire for variety. Ms. Harrison plans different tasks, one of which is always an active learning piece. Instead of long lectures, she gives mini-lessons on new concepts. These mini-lessons are sandwiched between an exploratory activity and students' applying the concept to their project work. The whole class then engages in a dialogue to share observations and reflect on what they have learned so far.

The educational needs of middle school students are truly unique. In no other period of PreK–12 education can one find such a wide range of physical, social, and cognitive development among students. For students, the middle school years can be a time of both great vulnerability and great responsiveness to change. These years are highly formative for behavior patterns in education and health that have enduring, lifelong significance. The challenge for middle schools is to help provide the building blocks of adolescent development and preparation for adult life.

How do we engage middle school students in a way that meets their developmental needs, pushes them to learn significantly, and prepares them for the high school years and beyond? Turning Points believes the answer lies within challenging these students with engaging and worthwhile work while supporting them with close-knit relationships.

Curriculum Development in Turning Points Schools

Developing curriculum that meets the needs of middle school students is a complex process that rarely follows a prescribed pattern. Teachers may come up with ideas for projects, themes, and activities on the way to work, in the middle of class, during a conversation with a colleague, and even in the shower. Some teachers begin with a theme while others start with habits of mind they want their students to acquire. Some teachers use state frameworks and standards as a starting point to curriculum development. Still others build a unit from an idea for a project. The purpose of this guide is not to dictate how teachers should develop their curriculum, but rather to propose that certain basic principles, supported by Turning Points work in schools, underpin curriculum development.

Middle school curriculum should respond to the unique educational and social needs of this age group; it should be based on content standards, habits of mind, and thinking skills; and promote collaborative teaching, learning, and assessment opportunities that enable all students to achieve high standards. In addition, the Turning Points model calls for middle school teachers to develop curriculum organized around themes and essential questions. Themes such as power, balance, relationships, and patterns are the big ideas that unify teaching and learning experiences. Essential questions are the two to three important questions about a theme that students and teachers consider throughout a unit in order to provide focus and stimulate inquiry. Finally, the Turning Points approach to curriculum development integrates teaching and learning with a process of ongoing assessment. Ongoing assessments, both formal and informal, give teachers, administrators, and students an understanding of how well they are doing and what they need to do to continue to improve.

One of the main goals of the Turning Points design is to raise the level of discourse among teachers by helping them exchange ideas about student learning, instructional methods, and curriculum development. By using the strategies presented in this guide and in *The Turning Points Guide to Looking at Student and Teacher Work*, teachers can engage in rigorous intellectual dialogue that will help them reflect on their work. Conversations with colleagues energize teachers and help them to learn from each other, often leading them

This guide does not dictate how teachers should develop curriculum, but proposes the principles underlying curriculum development in Turning Points schools. to try new methods in the classroom. These conversations also draw teachers' attention to issues of equity as they focus on the diverse instructional needs of all students.

Five Principles of Turning Points Curriculum Development

1

Curriculum should be grounded in an understanding of the middle school child. Curriculum development and teaching methods are based on an understanding of the middle school child as an intellectually capable, complex person who is responsive to challenge.

2

In Turning Points schools, curriculum is based on learning goals that include content standards, skills, and habits of mind. **Curriculum should be based on what we want students to know and be able to do.** All curriculum development, teaching, and assessment are tied to a broader definition of standards than the typical state standards, which tend to be content-focused. Turning Points curriculum includes habits of mind, skills development, and in-depth study. Turning Points schools go beyond state and local standards to define what students need to do to be thoughtful, caring, and valued members of the community.

3

Students and teachers should be engaged in authentic, intellectual work. All student work should have significance beyond the classroom. This work should be purposeful and rigorous, and it should develop skills and knowledge that will prepare students for high school and beyond. As a result, Turning Points curriculum is often project-based.

4

Assessment should demonstrate that students can do important work. A crucial part of curriculum planning is developing formal and informal assessments to understand what students know and what they are learning in relation to the learning goals.

5

A coherent curriculum should be developed across the entire school. Teachers and administrators use a process called "mapping" to build a well-articulated, coherent curriculum across the school.

CURRICULUM SHOULD BE GROUNDED IN AN UNDERSTANDING OF THE MIDDLE SCHOOL CHILD

Turning Points schools ensure their curriculum and teaching methods are based on an understanding of the middle school child as a complex person who is vulnerable as well as responsive to challenge. Students in this age group experience a wide range of physical, social, and intellectual development. While some students are approaching adult physical development and stature, others look as if they could still be in elementary school. Some students are able to sit still for long periods of time while others need to be more active. Socially, it is during the middle school years that students begin to perceive the larger world around them and question their place in that world, often becoming self-conscious and unsure of themselves. Many are beginning to come to terms with their ethnic and gender identities. Intellectually, middle school students are gradually moving from concrete to formal operations. They are making a transition from thinking logically about their own real-life experiences to reasoning about abstract concepts and ideas.

In response to the unique needs of their students, middle schools need to organize their instructional programs and adopt teaching and learning methods that are most effective with this age group.

Turning Points recognizes that middle school students:

Are capable of critical and complex thinking and develop these skills by using them

Are capable of responding with high achievement when challenged and engaged

Show variability in themselves and need variety in their day and in what is asked of them

Need increasing autonomy and responsibility as well opportunities to demonstrate that they can behave responsibly Have abundant energy and interest that should be tapped instead of squelched

Are willing to take risks if they believe they are in a safe and trusting environment

Placing the needs and capabilities of middle school students at the center of curriculum planning, teaching, and assessment makes student learning more active, engaging, and profound. Improvements of this magnitude will occur only if teachers work collaboratively to create learning opportunities based on these beliefs. For example, to develop higher-order thinking skills, teachers ask students to grapple with open-ended questions based on meaningful work and to synthesize information so they can support their opinions with evidence. Believing that young adolescents are capable of high achievement means teachers must raise their expectations for the quality of student work and build in the support necessary to help all students meet higher standards. In order to allow middle school students to demonstrate they can act responsibly, teachers must genuinely ask students to use good judgment by, for example, having them make public presentations and by giving them choices.

Giving students these opportunities may very well be a dramatic change for a middle school that has focused more on controlling the behavior of students than on letting them make decisions for themselves. In the vignette that follows, Ms. Harrison organizes class time, paying close attention to the social and educational needs of young adolescents. This type of active and varied learning environment creates significantly deeper learning experiences for a greater number of students.

Ms. Harrison embraces her students' abundant energy and need for variability. Instead of lecturing for a whole class period on environmental dangers in the home and having the students read about them as homework, she plans four different activities to help her students learn. In an extended class period, her students read an article silently for 15 minutes, brainstorm in small groups the benefits and potential dangers of chemicals for family members, and then work with partners to begin writing an advertisement to sell a product that contains toxic chemicals to families. She ends the class with a student-led discussion about what chemicals are

Middle school students are capable of complex thinking and high achievement.

dangerous to families, based on what the students learned in class that day. In this single class period, students learn what a household toxin is while deepening their understanding of the balance between the benefits and dangers of chemicals in the home. At the same time, students are actively connecting their learning with life outside school. They also listen to others and develop respect for divergent viewpoints.

2

CURRICULUM IS BASED ON WHAT WE WANT STUDENTS TO KNOW AND BE ABLE TO DO

In Turning Points schools, curriculum standards are more broadly defined than the content standards that most state governments have developed in the recent past. A Turning Points school uses state standards in discussions to define for itself what students need to learn in order to be thoughtful, caring, and valued members of the community. Instead of merely ensuring that students attain curriculum standards limited to content knowledge, Turning Points schools also provide opportunities for students to develop the habits of mind and thinking skills that will prepare them for a thoughtful and successful future.

As schools and districts create their own standards, Turning Points suggests that they include three types of *learning goals* for students: habits of mind, skills, and content standards. These goals are kept at the forefront of the school community for all to see and for students and staff to strive for. By focusing on more than just content standards, Turning Points teachers aim to teach students to become compassionate and caring individuals who can think critically, access and synthesize information, clearly communicate their ideas, and develop deep understanding.

Turning Points broadens the definition of standards to include how students use their minds and how they act and interact with others.

3

STUDENTS AND TEACHERS SHOULD BE ENGAGED IN AUTHENTIC, INTELLECTUAL WORK

Turning Points asks a school to integrate curriculum development, teaching, and assessment. What the school has determined students should know and be able to do drives curriculum development, teaching, and assessment. In this way, the focus is on student learning and growth, not on how much material is "covered" in a year. Curriculum and instruction need to provide students with opportunities to engage in authentic, intellectual work that has significance beyond the classroom. Curriculum and instruction need to provide students with opportunities to engage in authentic, intellectual work that has significance beyond the classroom. This means moving beyond textbook-based instruction toward project-based curriculum that incorporates a wide variety of instructional materials and strategies and promotes challenging, intellectual work that connects to the real lives of students.

Project-based instruction provides increased opportunities for students to engage in authentic, intellectual work and creates a shift in the teacher's role. Sometimes the teacher may be the facilitator who guides students in a discussion about their science experiments, while at other times the teacher may set up a project for students that includes gathering oral histories of senior citizens. In still another role, the teacher may model his or her own writing to begin teaching students how to write a poem. Teachers will use teaching techniques that ask students to participate actively in learning and in applying knowledge, skills, and habits of mind. For example, students would not only study outstanding published poetry, but they would also write their own poetry and publish it in magazines they create or in national periodicals for youth. In science, students will be expected to create their own hypotheses and test them through investigation and research.

Curriculum based on authentic, intellectual work:

Is purposeful, rigorous, and related to the real world

Focuses on developing complex and critical thinking skills

Is project-based and active in nature, allowing students to use their energy and creativity to enhance their learning

Balances depth and breadth of material

Explores relationships and connections, and integrates information across disciplines

Is based on a multiple-draft process where students receive feedback from teachers and others to improve their work

Explicitly teaches literacy across all content areas

Integrates themes, essential questions, and standards into the daily work of students

Addresses the variety of student learning styles by using a wide range of methods

Allows students and teachers to take on numerous roles

Allows for reflection and self-assessment

4

ASSESSMENT DEMONSTRATES THAT STUDENTS CAN DO IMPORTANT WORK

A crucial part of planning engaging learning opportunities for students is developing formal and informal assessments to understand what students know and what they are learning in relation to the unit's learning goals. In the Turning Points model, assessment asks students to demonstrate what they know and can do. Teachers gather this evidence throughout a unit of study or period of time, and also in a final, culminating project or performance. Very early in the curriculum development process, Turning Points teachers think about assessment and how students will demonstrate that they have achieved the learning goals. Instead of waiting until the end of a unit of study to create a test or assign a project, teachers create assessment activities at the beginning because the assessments help determine what students will be doing as the unit progresses.

To accommodate the wide range of learners in their classrooms, teachers devise a variety of assessments that include projects, exhibitions, portfolios, and demonstrations. Such assessments ask students to explain, interpret, apply, analyze, synthesize, solve problems, and communicate information. Teachers also ask their students to demonstrate understanding of others and themselves as examples of how they have learned. At the beginning of the curriculum development process, teachers create assessments that help determine what students will do as the unit progresses. Making sure assessments are "transparent" gives students a clear understanding of what is expected of them in terms of the quality of their work and how their work will be evaluated. Teachers can use rubrics, develop assessment criteria with students, and display models of exemplary work to help students understand what is expected of them. Rather than just giving students a grade that tells them how they did in relation to each other or to an unidentified standard, teachers use assessments that give students specific feedback which will help them improve. Assessment tasks based on learning goals help students know what is important to learn and assist teachers in understanding how effective their teaching is.

Characteristics of Assessment

In the Turning Points model, assessment:

Is transparent—students know the criteria, learning goals, and timing of assessment

Drives curriculum planning and teaching—what students are asked to do depends on how they will be asked to demonstrate their learning

Takes many forms including projects, exhibitions, portfolios, and demonstrations

Helps students, teachers, and parents understand what a child knows and can do and allows them to understand what a child needs to do to improve

Is ongoing, tied to the learning goals, and used to inform curriculum planning, teaching, and professional development

A COHERENT CURRICULUM SHOULD BE DEVELOPED ACROSS THE ENTIRE SCHOOL

As teachers develop curriculum based on learning goals and guided by themes and essential questions, they create learning experiences that are more thoughtfully organized. But it is not enough to have many thoughtfully designed experiences if they have no connection or relationship to each other. The Turning Points school engages in a process called "mapping" that leads to a coherent curriculum within grade levels, between grade levels, and across the entire school.

If you follow middle school students around for a day, it's easy to see how fragmented and incoherent their learning experiences can be. There are redundancies and omissions in learning because one teacher rarely knows what other teachers are doing. This fragmentation is due in part to the way curriculum has been developed over the years. Topics might be included because teachers want to teach a particular topic, they might be held over from an earlier curriculum, or in response to perceived student deficits.

In order to build curriculum across a school, the teachers and administrators use mapping, a process that involves asking these four questions:

1

What do we want our students to know and be able to do?

2

What are we currently teaching?

3

Where are the redundancies and the gaps between what we should be teaching and what we are teaching?

4

What will we do about the redundancies and gaps?

Curriculum mapping is a process that builds a coherent curriculum across the entire school.

MAPPING THE CURRICULUM

The following four questions guide schools to work collaboratively to create a coherent curriculum across the entire school.

Process

1. WHAT DO WE WANT OUR STUDENTS TO KNOW AND BE ABLE TO DO?

This question moves a faculty past narrow content standards to consider what matters most in becoming a literate and useful person. Members of the school community work collaboratively to identify important learning goals for middle school students including content, skills, and habits of mind. Teams may use the school's vision statement to inform the mapping process as they take a look at what teachers are experts at, what they enjoy teaching, and what they are already teaching. They will also review public documents such as curriculum frameworks or standards.

2. WHAT ARE WE CURRENTLY TEACHING?

Through a process of listing out or "mapping" what each person teaches, the faculty begins to understand what is actually being taught in all classrooms, at all levels. This mapping is done by subject area and grade level. Mapping helps a school to understand the current status of its curriculum.

3. WHERE ARE THE REDUNDANCIES AND THE GAPS BETWEEN WHAT WE SHOULD BE TEACHING, AND WHAT WE ARE TEACHING?

Once teachers have determined what they want to teach, what they should be teaching, and what they are teaching, they compare the lists to identify any overlaps and gaps. There may be unnecessary redundancies, as well as omissions of consequence.

4. WHAT WILL WE DO ABOUT THESE REDUNDANCIES AND GAPS?

Teachers choose priorities and make decisions on what to base the coherence of the curriculum. For example, curriculum might be organized around content areas, as teachers look closely at what everyone teaches throughout the year. Or, themes can be the guiding force behind coordination of curriculum. Some schools build coherence by focusing on a few essential questions that define what is taught. Habits of mind developed by the school may also help coordinate curriculum throughout the school. Once a coordinating lens is chosen, teachers use it to look closely at what is taught and compare it to what they think should be taught. In this analysis teachers fill the gaps and eliminate the redundancies. The whole faculty examines, subject by subject, what topics, themes, and learning goals will be addressed, when, and where. The result is a map, by grade level and discipline, of what is taught in the school.

Turning Points Curriculum Planning

his section of the Curriculum Guide is designed to help teachers understand the components of planning curriculum in the Turning Points model. It begins with a brief description of each component, followed by a more detailed explanation of the components, how teachers use them, and guidelines on what to consider when creating curriculum.

This section also includes a Curriculum Planning Template that will aid teachers in planning units of study in the Turning Points model. The template is designed to help teachers ask the questions that lead them to developing meaningful learning experiences for their students. Based on broad themes, these learning experiences use essential questions and a variety of instructional and assessment techniques to drive deep inquiry. This section closes with a completed template for a unit developed by a Turning Points teacher.

All the curriculum planning materials that follow are meant to be flexible tools. They may be used to help a single teacher develop a unit for one subject, or an academic team build an interdisciplinary unit around a common theme. In our work with schools, Turning Points has found that when teachers are first developing units according to this model, they benefit from a structure that guides them through the planning process. As teachers become more familiar with each component, they will be able to begin planning with any component and build units that intertwine all components.

Components of Turning Points Curriculum Planning

Theme: The theme is the concept or big idea that the study is centered around. It should be a concept that is important to humanity and can be explored across disciplines, eras, and cultures. For example, power, force, patterns, and freedom are all appropriate themes.

Essential Questions: These questions help focus students on the most important aspects of the theme. Teachers and students consider two or three substantive questions throughout the unit and look at them from multiple perspectives.

Learning Goals: These goals describe what students should learn and be able to do as a result of the unit of study. Learning Goals are divided into three areas: habits of mind, skills, and content standards.

Habits of mind — The ways of thinking and being that the school values

Skills – What students will be able to do by the end of the unit

Content Standards—The knowledge that students will acquire during the unit

Assessment: Divided into Culminating Assessment, Ongoing Assessments, and Reflection, assessment is designed so that students and teachers know how they are doing and what they have to do to improve.

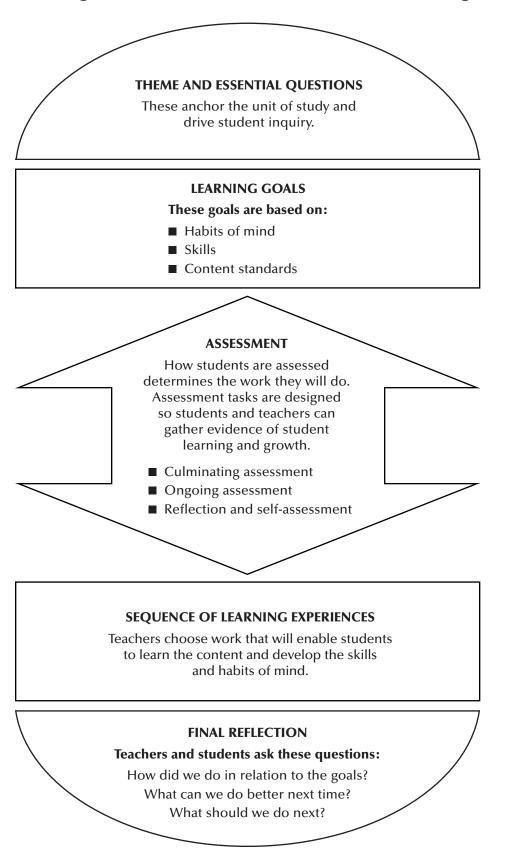
Ongoing Assessments—The work and assignments that show how students are doing as the unit progresses

Culminating Assessment—A project or performance that asks students to apply the knowledge, skills, and habits of mind they develop throughout the unit. All the work and learning of the unit build toward the creation of the culminating assessment.

Reflection and Self-assessment—Occurs throughout the unit as a part of ongoing assessment and at the end of the unit when students and teachers look back on the unit to see what worked well and what can be improved.

Selection and Sequence of Learning Experiences: These are the ways in which students engage with the content, learn the skills, and develop the habits of mind that are the goals of the unit. The sequence of activities should be designed to move students toward achieving the learning goals and creating the culminating assessment.

Turning Points Model for Curriculum Planning



THEME

A theme is not an individual topic that students study; it is a broad concept that is important to humanity and can be explored across disciplines, eras, cultures, and through many modes of experience. It serves as the organizing center of the unit, the concept that ties all work together. Themes focus a curriculum on the structures, relationships, and cycles that make up the world around us. When teachers organize a study around a theme, they create learning experiences that allow students to engage in the higher-order thinking skills that require them to access, analyze, synthesize, and communicate information.

Themes address a more complex definition of our world, one that studying discrete events or content does not allow. Students who study a curriculum based on a provocative theme begin to connect knowledge across time, discipline, and geography. Although themebased units do not have to be interdisciplinary, when connections between disciplines become more transparent, students begin to link what they are studying to what they already know. When working in a theme-based study, students learn to develop a greater understanding of the world around them rather than learning in order to know more facts or do well on a test.

The most important facet of a theme is its ability to bridge disciplines and allow students to study the connections. For example a seventh grade team doing a half-year study on the theme of *Change: Cycles and Transformation* could consider how change is reflected in each discipline. In science, students could investigate adaptation, evolution, and the growth cycle. In social studies, students could study the political, economic, and sociological issues that drive the development of nations. In math, students might analyze data from the science or social studies classes to see how statistics and graphs can be manipulated to support or defeat change. In English, reading coming-of-age novels from around the world could lead students to write biographies of a diverse group of local community members.

As the organizing center of a unit, the theme provides natural links among disciplines.

Choosing a Theme

Themes:

Support a wide-ranging study

Engage students by being tied to their interests and concerns

Are compelling enough to be explored in depth

Can be explored from many disciplines

Bridge time, geography, and cultures

ESSENTIAL QUESTIONS

Essential questions are the overarching questions that help to focus a theme-based unit and prompt students to dig for deeper meaning. Growing out of the theme, essential questions deal with the concepts that are at the center of the field of study. They are not easily answered with facts and figures, but instead lead to other questions that will engage students and deepen their inquiry.

Curriculum and assessment are centered on the content and skills students need to address the essential questions effectively. In a unit on *Change: Cycles and Transformation*, possible essential questions are:

What forces drive change? What makes you change? How has technology affected change in different societies?

To consider the essential question *How has technology affected change in different societies?* students need to understand the concepts of technology and development. They must have knowledge about a range of societies across time and how and why they developed. Students must be able to synthesize this information and communicate it in a form that demonstrates they can develop hypotheses and support them with evidence. Thus, the teacher, using essential questions, creates experiences to ensure that all students learn the necessary content and develop skills needed to address questions thoughtfully and thoroughly.

Include students in framing or rewording essential questions as a way to encourage inquiry. From the outset, essential questions should be shared or developed with students. Including students in framing or rewording essential questions will help them take ownership of their inquiry.

Characteristics of Essential Questions

Essential questions share certain characteristics that allow them to engage students and push them to think more deeply.

Essential questions:

Are open-ended and may not have an obvious right or wrong answer

Prompt students to make connections between ideas and/or disciplines

Challenge students to see from and understand different perspectives, make discoveries, and analyze new evidence

Are provocative and engaging

Are asked again and again as students' understanding, knowledge, and skills develop and deepen

Are modeled after the questions that practitioners in a field ask as they engage in their work

Frame the information that students will explore during the unit of study

LEARNING GOALS

The learning goals of a unit are based on a broad definition of standards that includes what students should know, how they should act, and how they should interact with each other. When developing a unit of study, teachers select specific content standards, skills, and habits of mind that will serve as learning goals for that study.

Habits of mind — The ways of thinking and being that Turning Points schools help all students acquire. They are lenses through which students see the world. Habits of mind help guide a person's thinking, actions, and interactions. For example, when looking at an historical event one habit of mind might be to use multiple perspectives and ask, *Whose viewpoint is represented here?* Another habit of mind could be to use evidence by asking, *What evidence do I need to support my position?* Habits of mind assist students in all content areas and help them become life-long learners. Habits of mind can be adopted school wide or created by teachers individually.

Skills — What students will be able to do by the end of a unit or study.

Content Standards — The knowledge that is important for students to learn during a unit of study.

Teachers' choices of learning goals are based on student needs and interest, teacher knowledge, and the theme or content being studied. Teachers should decide on a limited number of learning goals that develop a variety of learning styles and skills.

From the beginning, learning goals should be shared or even developed with students. If they know what they are striving for, students are better able to assess their own progress and achieve the learning goals. Teachers should choose activities and instructional methods based on how well they will move students toward successfully meeting the identified standards, skills, and habits of mind. Make learning goals explicit to students at the beginning of the unit so they can know what they are striving for.

Characteristics of Learning Goals

Learning goals:

Are linked to district and state standards

Incorporate skills, content, standards, and habits of mind

Are challenging but achievable

Are explicit and understood by all students

Are used by students while they are doing the work of the unit

Are used by teachers while they are designing assessment tasks, projects, and the work of the unit

Are connected to the everyday life of students

Content Standards	Skills	Habits of mind
What students	What students should	The ways of thinking and
should know	be able to do	being that a school values
What a fraction is The properties of matter The major events leading up to and during the American Revolution Story elements including plot, theme, point of view, and climax	Gather evidence by using different types of historical sources Write an original story that demonstrates understanding of plot, theme, point of view, and climax Use computation of fractions to solve problems Devise an experiment specifying variables to be changed or controlled	Persistence: Using a variety of methods before finding a correct solution The ability to use evidence to evaluate sources of information The ability to view an event from multiple perspectives Ownership: What is my role and responsibility?

Curriculum Planning Template

This section offers the following worksheets that you can use as you plan your curriculum according to the Turning Points model.

■ Theme, Essential Questions, and Learning Goals

Culminating Performance or Project

Ongoing Assessments

Sequence of Learning Experiences

The Final Reflection



THEME, ESSENTIAL QUESTIONS, AND LEARNING GOALS

THE ANCHORS OF CURRICULUM: THEME AND ESSENTIAL QUESTIONS

What theme will students investigate?

What two or three Essential Questions will guide student inquiry?

THE LEARNING GOALS

Habits of mind: What ways of thinking and acting will students develop?

Skills: What will students be able to do as a result of this study?

Content standards: What will students know by the end of this study?

CREATING A CULMINATING PERFORMANCE OR PROJECT

- 1. Brainstorm how people outside of school use the habits of mind, skills, and content that students will be learning.
- 2. Select one or more of the ideas you thought of and shape them into a culminating project or performance that students could do.
- 3. Check to see if this project will ask students to apply the Habits of Minds and the Skill Goals of the unit.
- 4. Check to see if this project will ask students to demonstrate their understanding of the Content Goals.
- 5. What opportunities will there be for students to do original work or construct knowledge?
- 6. In front of what public audiences will students demonstrate their learning?
- 7. What value does this project have beyond the assignment?

Based on the process above, describe the Culminating Project or Performance that will allow students to demonstrate their mastery of the Learning Goals.

Center for Collaborative Education

BOARD OF DIRECTORS

Officers

Avram Goldberg, Chairperson Terry Herndon, Treasurer Joan Connolly, Recorder

Members

Irwin Blumer	Pedro Noguera	Theodore Sizer
Darcy Fernandes	Sergio Páez	Pam Solo
Gregory Groover	Walter Palmer	Brian Straughter
Deborah Meier	Vito Perrone	Chuck Turner
Linda Nathan	Paul Reville	Bak Fun Wong

Executive Director Dan French

LEAD WRITER

Ben Lummis

CCE CONTRIBUTING STAFF

Mary Atkinson	Cheryl Jones	Martin O'Brien
Peggy H. Burke	Jordan Naidoo	Leah Rugen
Jeanne Burton		

Turning Points is affiliated with New American Schools, a dynamic coalition of teachers, administrators, parents, policymakers, community and business leaders, and experts from around the country committed to improving academic achievement for all students. All NAS designs have been validated through extensive testing and research.

Cover and interior design: Carroll Conquest, Conquest Design

Copyright @2001 by the Center for Collaborative Education, Boston, Massachusetts

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright owner.



1135 Tremont Street Boston, MA 02120 617.421.0134 (p) 617.421.9016 (f)

www.turningpts.org



