Research is clear that the single most important school-based factor that improves student learning is the quality of the teacher in the classroom. The Math and Science Leadership Academy will be a school where everyone comes to learn, teach and lead. The school is intentionally designed to attract and retain the most accomplished teachers in the field and has built-in structures that encourage and support teachers in continuing to improve their craft. The school function, its hiring processes and professional development will be centered on the Five Core Propositions of the National Board for Professional Teaching Standards:

1. Teachers are committed to students and their learning.
2. Teachers know their subjects and how to teach those subjects to students.
3. Teachers manage and monitor student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities.

Recruitment, Interviewing and Hiring

Recruitment of staff members for the Math and Science Leadership Academy will occur on a local, state and national level. It is imperative that this school attract and retain highly accomplished teachers or those who are striving to continually improve their practice. While much responsibility is being given to all members of the staff, it is exactly those teachers who desire more decision-making authority that are highly sought after in this model. Much of the school design is in direct alignment with recent research on attracting and retaining accomplished teachers to challenging schools. Augenblick, Pailaich and Associates (2008) identified five factors that are important to accomplished teachers in creating positive working conditions, those necessary to attract and retain accomplished teachers. In order, those conditions are as follows:

- School leadership
- Common Planning periods with content or grade level colleagues
- Availability of technology
- Teacher involvement in important school decisions
- Early dismissal days to allow for planning and professional development (tie for 5th)
- “Duty free” schedule (tie for 5th)

A key factor that teachers identified as being desirable in school leaders was their commitment to involving teachers in important decisions including; the flexibility to design instruction, input on teacher hiring, input into professional development, use of grade level teams to support instruction and creating a common school vision. The Math and Science Leadership Academy has all of these leadership factors built into its design in an overt effort to attract highly accomplished teachers.

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Also built into the school design is a significant amount of common planning time. Every week
the school will have a late start day to provide teachers with a significant amount of time (3 - 4
hours) to engage in their school responsibilities. This late start day will be created by extending
the instructional day by 45 minutes 4 days a week. Teachers will have 45 minutes of common
planning with their grade levels in addition to a 45 minute duty-free lunch daily. This time will
be utilized by the teachers to plan collaboratively, analyze data and design instruction that will
meet the needs of their students. The presences of common planning time facilitates the
implementation of data teams and provides teachers with time to work together to improve their
instruction.

Key factors in the school design make the school attractive to accomplished teachers as we
move into the recruitment of staff. The school has built into its design to some degree, all of the
factors identified above that are key to attracting and retaining accomplished teachers in
challenging schools. Teachers at the Math and Science Leadership Academy will assume some
of the school leadership roles and be responsible for making key decisions. For example, the
professional development team will consult with the data team and decide what types of
professional development are needed at the school level and/or at grade levels or
departments. As mentioned previously teachers will have common planning time and ‘duty
free’ lunch times. As a school there will be a focus on technology. Technology will be readily
available for teacher and student use.

The Math and Science Leadership Academy will recruit teachers locally and will make explicit
efforts to have National Board Certified Teachers (NBCT) and/or candidates on staff. In
addition, we will participate in Teacher Fairs across the state and have postings in Education
Week, Teacher Magazine and on the National Education Association website.

The preferred qualifications for all staff members align directly with the Five Core Propositions
of the National Board for Professional Teaching Standards and are as follows:

- Documented record of positive impact on student learning.*
- Knowledge and experience working with challenging populations including
  English Language Learners and students living in poverty.*
- Proficiency in utilizing data to inform instruction.*
- Knowledge of and proven ability to implement instructional strategies that meet
  the needs of diverse learners.*
- Willingness to assume responsibilities for learning, teaching and leading within a
  collaborative community of learners.
- Desire to grow professionally in a wide range of areas.
- Motivation to advance the mission of the school.
- Dedication to improving the community that the school serves.
- Commitment to professionalism as seen in a desire to participate in Take One!
  professional development or seek National Board certification at some point in
  their career.
- Hold a current administrator’s license.
*During the application process candidates will be asked to provide documentation of the items listed above that are designated with an asterisk. These will be used to screen candidates in the event that the number needs to be decreased for classroom visits. Whenever possible the Lead Teacher will go to the candidate’s school, meet them in their classroom and observe the teacher as they interact with their students. In the event that there are numerous candidates, a screening process will be conducted to minimize the number of classroom visits. During the application process candidates will be asked to provide documentation of the items listed above that are designated with an asterisk. These will be used to screen candidates in the event that the number needs to be decreased for classroom visits.

In addition to the application and classroom visit, candidates will participate in an interview. Clearly, the first staff members hired will have to be selected by the Lead Teacher. However, whenever possible, the grade level or content level teachers who have already been hired will participate in the interview and have an equal say in the selection of the staff members with whom they will work. The interview panel will develop a rigorous interview protocol with the intent of drawing out information about the key desirable factors identified above. It is imperative that we hire highly accomplished teachers or those who have already set themselves on a trajectory in that direction.

When using interview panels or teams consensus voting will be utilized. In this approach, all members must agree on the hiring of a staff member, or specifically indicate that they do not oppose the selection. If a single person opposes the selection the group either denies the candidate or engages in further discussion until they come to consensus.

The Math and Science Leadership Academy would like to establish a balance of veteran, mid-career and novice teachers. The balance between new energy and ideas, and experience with a proven track record will serve to support all teachers as they move along a professional growth continuum. In the event that the school has openings that are not filled in regular staffing cycles, the school will participate the same processes that all other schools engage in relative to placements.

**Retention**

Research done by the Center for Teaching Quality about working conditions that support the retention of accomplished teachers is very similar to the findings stated previously. A 2006 survey of over 75,000 educators suggested that sufficient planning time is a key ingredient to slowing down teacher attrition rates. This study also found that school leadership and the ability to work with “like-minded” colleagues were factors in retaining teachers, particularly in schools that work with challenging populations.

Additional findings by Augenblick, Pailaich and Associates (2008) on teacher retention include that even more important than the school leader, is the school’s educational philosophy. More specifically, teachers identified the importance of creating a school-wide philosophy of building extensive and consistent collaboration among teachers and instructional leaders. The Math and
Science Leadership Academy has an underlying foundation of collaboration built into its structure, not only in the operation of the school, but also in the evaluation system, that will be explained later in this document.

The ability collaborate, ask questions and seek multiple solutions to challenges have been identified as 21st century skills. Teacher collaboration in the functioning of the school will not only serve to help create a model for how the schools of the future will run, it will also model for students the dispositions, knowledge and skills that they will need for future success. Retention of teachers and students will be enhanced by the collaborative climate and culture that will be created by empowering teachers and students to be learners, teachers and leaders.

**Grievances**

The Math and Science Leadership Academy will adhere to all of the processes and guidelines outlined in the Master Agreement. One of the conditions of the Agreement is that grievances will be heard by a person with an administrator’s license. The Lead Teacher will be entering a Principal Certification program in January 2009 and will complete the program in January 2010. During the time gap between the opening of the school and the Lead Teacher receiving certification, another staff member who holds an administrator’s license will serve in this role.

Clearly, as a school that is being supported by and created with the local, state and national teachers associations (DCTA, CEA and NEA), we would seek to resolve any issues prior to reaching grievable conditions. One of the core commitments for the school is to work within the guidelines set forth in the Master Agreement and while providing teachers the support and conditions that they need to improve student learning.

**Induction, Mentoring and Professional Development**

Teachers who are new to the school or district and are on Probationary status will have an on-site mentor teacher who will work with them on a regular basis and provide support and guidance. This support and guidance will take place on a regular basis in the class with the teacher and, whenever possible, with the students. The most effective way to provide support is in the context in which the teacher is teaching. It is well documented that as many as 50% of all new teachers leave the profession in the first 3 – 5 years. Much of the cause of this attrition is a lack of induction and mentoring. With this in mind, teachers at the Math and Science Leadership Academy that are new to the profession will have a mentor teacher for the first three years at the school. In addition, the Lead Teacher and/or facilitator will co-teach with new teachers or provide class coverage so that the new teacher can collaborate with other teachers in the building, observe other teachers or engage in some other professional learning experience. New teachers, like all other teachers at the Math and Science Leadership Academy, will also participate in ongoing professional development that involves teachers in planning together, observing each others teaching practice and debriefing after classroom visits.
professional learning experience will incorporate methods and strategies from the Take One! professional development protocol of the National Board for Professional Teaching Standards.

In Take One! participants engage in completing one of the video portfolio entries from the National Board certification process. During this process teachers plan a teaching unit, implement the unit, videotape their teaching, select a 15 – 20 minute clip of their teaching and analyze the video. While the questions vary in different certificate areas, the questions are similar the following:

1. What are the goals and objectives of the lesson?
2. Why are these goals and objectives important for these students?
3. What was the learning sequence and why were those strategies used?
4. What did the students learn?
5. How do you know they learned?
6. What would you do differently if you had the chance?

This process, whether using video or live classroom visits, will be the basic foundation for the professional learning of both veteran and novice teachers alike. It provides a framework for teachers to talk about their teaching practice and its impact on student learning. The focus in this process is on what the student learned and how the teacher facilitated that learning. Research on the National Board certification process and its impact on student learning and effective teaching practice is overwhelmingly positive. The most recent study released by the National Academy of Science provided what is considered to be the definitive answer to the question of whether National Board Certified Teachers have a positive impact on student learning. The answer was YES! There is also a large body of research that supports the use of National Board processes to improve teaching and learning. Again, this will provide the fundamental framework for professional development, peer assistance and mentoring for the teachers at the Math and Science Leadership Academy.

**Peer Review and Dismissal**

One of the fundamental ways that the Math and Science Leadership Academy will differ from other Denver Public Schools (DPS) is in the way we do teacher evaluations. The intent of the current evaluation system used by DPS is to have a collaborative process for teacher evaluation. A significant amount of thought, time and effort went into designing the current teacher evaluation system. The school will adhere to the intent and the process that was developed with some changes that will ultimately serve the original intent of being a collaborative process. The primary difference will be that observation, feedback and collection of records of teaching will be a process that involves members of the School Leadership Team (SLT) as well as the Lead Teacher rather than a single person who is usually the principal or assistant principal.

The SLT will be comprised of the Lead Teacher and one representative from each of the teacher “Teams” that will make up the components of the collaborative structure of the school. Each of these Teams will be decision-making bodies in the focus area of the team. The teams are as follows:

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1. Data – Analyze school, department and grade-level data in order to identify areas of challenge and strength. This team will advise other teams based on trends in the data.

2. Professional Development – Decide on the professional development needs for the school and grade levels based on information from the Data Team and Curriculum Team.

3. Curriculum – Assess needs and identify adjustments that need to be made in the curriculum based on data and professional development. Ensure that the curricular focus identified in the mission and vision of the school is being implemented and determine adjustments that might need to be made.

4. Climate and Culture – Identify explicit actions needed to create a collaborative and mutually interdependent culture. This team will also create a discipline plan and make adjustment to the plan based on its effectiveness.

The School Leadership Team will be responsible for completing evaluations for teachers who meet or exceed the standards identified on the teacher evaluation rubric. All or part of the SLT will meet with teachers regularly to discuss instruction and student learning with an eye towards setting goals for individual students and groups of students and measuring their growth towards standards. These collaborative conversations will provide documentation and guidance as to the results of the final evaluation for teachers. The Lead Teacher will have obtained her Principal’s license before the end of the first year of operation and will sign teacher evaluations. We will be seeking waivers, however, from state statute and the Master Agreement that will allow SLT representatives to sign evaluations.

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Team Structure

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The district’s teacher evaluation system is structured in a way that it can also be utilized as a professional development tool or process. The Math and Science Leadership Academy intends to utilize it in that way. Teachers who clearly will meet or exceed standards will be in a continuous cycle of collaboration that involves other teachers watching them teach and then sharing what they noticed during the lesson. In the diagram below you will see an upper cycle of observation, planning, implementing, observing and feedback. All teachers will participate in this process as a tool for professional development. Teachers who may not meet standards would move into the lower cycle that aligns with the already-existing processes that could possibly lead to dismissal.

For non-probationary teachers the process would look like the diagram below.

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The Lead Teacher will serve as the primary person overseeing the evaluation process, by completing and signing appropriate forms and conducting meetings outlined in the Master Agreement. However, members of the SLT will conduct classroom visits, host collaborative conversations with teachers about classroom instruction and give feedback on instructional issues to the teacher. They will also, in collaboration with the teacher being evaluated and Lead Teacher, discuss the Standards and Indicators that were evident during the teacher’s instruction and identified in the rubric used for teacher evaluation (see attached).

All teachers will be expected to be in a continuous cycle of improvement and utilize the attached rubric to identify areas of need and challenge for themselves. Within the first two months of school all teachers will be observed in their classroom either by member(s) of the SLT, during a learning walk or on video. The evaluation rubric will be used to identify areas of need and strength and the teachers will sit together and develop a plan to improve their practice based on the rubric and on what was noticed during the walk through or observation.

All teachers will work in collaborative teams to develop action plans to improve their teaching, regardless of where they are in their professional practice. It is a fundamental belief of the members of the school that we should all be striving to improve our practice. For example, individual or groups of teachers might decide that they want to work on improving in Standard 1 C – Differentiating Instruction. The group might decide to work together and do a book study around Integrating Differentiation and Understanding by Design by Tomlinson and McTighe. They might then work together to Backwards Design a unit where they implement a specific differentiation strategy. Then they go and observe each other while they teach a lesson where they are ach trying this strategy. They meet after the observation, debrief about what they observed and learned and then develop a plan to move forward from where they are. All members of the learning community will be expected to engage in some type of continuous learning that involves working with colleagues, opening up their practice and striving to improve.

For those teachers whose performance will be satisfactory and NOT in need of moving into another level of intervention, the SLT will be conducting the observations that will lead to professional conversations about improving practice and ultimately to conversations that will determine final evaluation status.

In a case where teacher performance indicates a more urgent need for improvement, a more targeted effort at improving areas of need will be implemented. The Lead Teacher, at least one member of the SLT and the individual teacher will sit together and engage in a conversation utilizing protocols similar to or adapted from Compelling Conversations. The protocols identified in this book focus conversations on student goals and learning, and the strategies needed to move children forward in their learning. The group would then decide on a specific set of steps to address the identified area of need similar to the process described above, but with much more guidance from the Lead Teacher and SLT. After specific and targeted intervention, the teacher would be observed again. The teacher, Lead Teacher and representative from the SLT will de-brief the observation and identify next steps. If sufficient
progress is made, then the teacher goes back into the Cycle described above. If not, then the next observation could trigger the mandated process that could lead to dismissal. The next observation, if possible leading to a remediation plan would have to, be conducted by the designated administrator who is likely to be the Lead Teacher.

From this point, all of the current processes that are in place in the district would occur. The teacher would then be put on a remediation plan that identifies two goal areas. The teacher can request Peer Assistance from the District support staff in order to help them reach these goals. The school will also make available the support of Facilitators, Master Teachers and the Lead Teacher to assist the teacher in meeting his or her goals. The teacher has between 30 and 90 days to meet the goals and then that time can be extended or the teacher can be recommended for dismissal. All processes that lead to dismissal will be in accordance with the DPS/DCTA Master Agreement and state statute. (See attached contract language) The processes described here exceed what is required by the state law or the Master Agreement.

Procedures for probationary teachers (those in their first three years with the district) may be more expedient, but still be in accordance with the law and the Master Agreement. Probationary teachers would go through the following process:

Probationary teachers are required to have a pre-observation meeting with the administrator in charge. These teachers, however, do not have to be placed on a plan of improvement and may be dismissed based on 2 observations. While every effort will be made to provide support to a
struggling teacher, if dismissal becomes necessary due to performance, it will be pursued. The process used to move toward dismissal of probationary teachers, again, exceeds what is required by law and the Master Agreement.

Methods to Attract and Retain Teachers in Hard to Staff Schools: A Report to Aurora, Denver and Jefferson County Public Schools. Augenblick, Palaich and Associates, (May, 2008).
