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# Presidential Awards for Excellence in Mathematics and Science Teaching



*Recognizing and Rewarding Excellence in Teaching Since 1983*

## 2017-2018 Application Packet

**Nomination Deadline:**  
**Application Deadline:**

**April 1, 2018**  
**May 1, 2018**

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**NATIONAL SCIENCE FOUNDATION**  
DIRECTORATE FOR EDUCATION AND HUMAN RESOURCES

# Presidential Awards for Excellence in Mathematics and Science Teaching

## 2017-2018 Application Packet for Elementary Teachers (Grades K-6)

Each year, the President of the United States recognizes outstanding individuals who teach mathematics and science at the kindergarten through 6<sup>th</sup> grade or 7<sup>th</sup> through 12<sup>th</sup> grade level, and bestows upon them the Presidential Awards for Excellence in Mathematics and Science Teaching (PAEMST). Awards are given to teachers in each state, the District of Columbia, the Commonwealth of Puerto Rico, the Department of Defense Education Activity schools, and the U.S. territories as a group (American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands). The PAEMST program is administered by the National Science Foundation (NSF) on behalf of the White House Office of Science and Technology Policy (OSTP). **In 2017-2018, the PAEMST program will accept applications from kindergarten – 6<sup>th</sup> grade mathematics and science (including computer science) teachers.**

The more than 4,800 awardees selected since the program's inception in 1983 are a premier group of teachers who have both deep content knowledge of the subjects they teach and the ability to motivate and enable students to be successful in those areas. While many awardees return to their classrooms, others move on to positions in school administration, become involved in preparing future teachers at the college level, or work in teacher professional development. They remain professionally active in a variety of ways. In addition to teaching, they contribute to the development of instructional and assessment resources, serve as mentors to students and other teachers, participate as writers and reviewers of state and local curricula, and compose books and publish articles, among other endeavors. Collectively, they reflect the expertise and dedication of the Nation's teaching corps, and they demonstrate the positive impact of excellent teachers on student achievement.

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### 2017-2018 Program Information

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#### **Nomination and Application**

By completing the nomination form available on the PAEMST website at [www.paemst.org](http://www.paemst.org), anyone--principals, teachers, parents, students, or members of the general public--may nominate exceptional individuals who teach mathematics and science (including computer science). Teachers may also initiate the application process themselves at [www.paemst.org](http://www.paemst.org).

To submit a nomination, the form requires the teacher's name, email address and school name. If a person knows more than one teacher worthy of this award, more than one nomination may be submitted. Nominated teachers will receive an invitation to begin the application process. The invitation will include a user name and password for accessing the online application system.

#### **Nomination Deadline: April 1, 2018**

Teachers should be nominated as soon as possible after nominations open giving nominees ample time to prepare an application.

#### **Application Deadline: May 1, 2018**

All application materials must be submitted online.

## Eligibility

Applicants must:

- teach mathematics or science (including computer science) as part of their contracted teaching responsibilities at the K-6 grade level in a public (including charter) or private school;
- hold at least a bachelor's degree from an accredited institution;
- be full-time employees of the school or school district as determined by state and district policies, with responsibilities for teaching students no less than 50% of the school's allotted instructional time;
- have at least five years of full-time employment as a K-12 teacher during which mathematics or science (including computer science) has been a part of the applicant's teaching duties **prior to the 2017-2018 academic school year**;
- teach in one of the 50 states, the District of Columbia, the Commonwealth of Puerto Rico, the Department of Defense Education Activity schools, or the U.S. territories as a group (American Samoa, Guam, Commonwealth of the Northern Mariana Islands, and U.S. Virgin Islands);
- be U.S. citizens or permanent residents; and
- not have received the PAEMST award at the national level in any prior competition or category.

## Review Criteria

After eligibility is confirmed and technical specifications are met, each application will be evaluated using the following *Five Dimensions of Outstanding Teaching*:

- Dimension One: Mastery of content appropriate for the grade level taught.
- Dimension Two: Use of instructional methods and strategies that are appropriate for the students in the classroom and that support student learning.
- Dimension Three: Effective use of student assessment to evaluate, monitor, and improve student learning.
- Dimension Four: Reflective practice and life-long learning to improve teaching and student learning.
- Dimension Five: Leadership in education outside the classroom.

More detail about each of these five dimensions appears on page 7.

## Review Process

There is a two-tier review:

- **At the state level**, coordinators convene selection committees, which include prominent mathematicians, scientists, mathematics/science education researchers, district level personnel, and classroom teachers. These committees select up to three finalists from each award category (mathematics or science) for recognition at the state level and forward these applications to NSF for national review. To ensure consistency across the country, all state selection committees will score their applications using the review criteria and scoring information presented in this application packet (on Page 9).
- **At the national level**, NSF convenes a national selection committee composed of prominent mathematicians, scientists, mathematics/science education researchers, district level personnel, and classroom teachers. The national committee reviews state finalists' applications and recommends to NSF up to two finalists in mathematics or science from each state or jurisdiction. The Director of NSF then submits the recommendations to the Director of OSTP. All finalists will be subject to a Federal Bureau of Investigation background check.

## Recognition

Each Presidential Awardee receives a certificate signed by the President of the United States and a \$10,000 award from NSF. Awardees also are honored during recognition events that take place in Washington, D.C. These events include an award ceremony, professional development opportunities, and discussions with policy-makers on how to improve science, technology, engineering, and mathematics (STEM) education.

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## Application Components Outline/Submission Checklist

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The application is designed to allow the applicant to provide evidence of deep content knowledge and exemplary pedagogical skills that result in improved student learning. There is no single right way to teach and, therefore, this award is not limited to teachers with a specific teaching style, method or philosophy. Rather, this award recognizes those teachers who develop and implement a high-quality instructional program that is informed by content knowledge, is appropriate for the students they teach, and enhances student learning.

The PAEMST application consists of three components: Administrative, Narrative, and Video.

### I. ADMINISTRATIVE COMPONENT

*The administrative component include a teacher information form, employment verification form, three letters of recommendation, résumé, and voluntary demographic information form.*

- **Teacher Information Form**  
Complete form online.
- **Employment Verification Form**  
Enter the contact information for your principal (or equivalent position at a private school) and an email will be sent to him or her with instructions for completing the form.
- **Letters of Recommendation**  
Submit contact information for three individuals (one being your principal) that will complete letters of recommendation. The three individuals will receive an email with instructions for completing the recommendations.
- **Résumé**  
Upload file into online application portal. (2 page limit)
- **Demographic Information Form (Optional)**  
Complete form online.

### II. NARRATIVE COMPONENT

*The narrative component consists of a written response and supplemental materials. The applicant must select a concept that will be used in the written response to the Five Dimensions of Outstanding Teaching.*

- **Written Response**  
Download template and enter responses to each dimension prompt. Copy and paste individual Dimension responses from template into portal.
- **Supplemental Materials**  
Upload file into online application portal. (6-page limit)

### III. VIDEO COMPONENT

*The video component consists of a videotaped classroom lesson that corresponds to the important concept chosen and discussed in the written response to the Dimensions of Outstanding Teaching.*

- **Video**  
Upload a file of an up to 30-minute video recording into the online application portal. (Applicants are highly encouraged to upload their video well in advance of the application deadline.)

*Applicants will not have access to the online application, including the video, after submission and should keep a copy for their own records.*

**Application Deadline: May 1, 2018**

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## Application Components

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### I. ADMINISTRATIVE COMPONENT

The administrative component includes a teacher information form, employment verification form, letters of recommendation, résumé, and a voluntary demographic information form. These materials will be used in evaluating the application, with the exception of the demographic information form.

#### **Teacher Information Form**

The *Teacher Information Form* is completed online within the PAEMST online application portal. Applicants provide information about themselves and their school; indicate the award category to which they are applying; describe their current teaching assignment, including grade level(s), courses taught, and weekly teaching schedule; provide contact information on school leadership; and provide demographics on students in their class and school. An insufficient description of an applicant's teaching assignment could cause an applicant to be considered ineligible.

#### **Employment Verification Form**

The *Employment Verification Form* will be completed online by a school principal or equivalent. The applicant will provide the contact information for the principal or equivalent, who will then receive an email asking that he or she confirm that the applicant's video submission adheres to all school or district requirements regarding student recordings and sharing of student data, and that the applicant is in good standing within the school or school district.

#### **Letters of Recommendation**

Three letters of recommendation are required from administrators, colleagues, parents, students, or others who can describe how the applicant's work supports the Dimensions of Outstanding Teaching. Applicants will provide contact information for each recommender, who will then receive an email with instructions on completing the recommendation. One of these three letters must be from a school principal or equivalent. If NSF becomes aware that an applicant is no longer in good standing within the school or school district and/or a principal rescinds his or her letter of recommendation after an application has been submitted but before the time of award, NSF may consider this grounds for disqualification from the PAEMST award.

#### **Résumé**

A résumé is required. It must outline the applicant's education, employment history (showing at least 5 years of experience), and participation in professional development activities. The applicant may elect to include in his or her résumé: memberships or leadership roles in science, mathematics, and/or educational organizations; memberships or leadership roles in informal science/mathematics centers, groups, programs, and other similar efforts; references for any articles he or she may have written for state or national science/mathematics newsletters or journals; grants that he or she may have received; or previous honorific awards received. There are no specific formatting requirements, but the document may **not** exceed two pages.

#### **Demographic Information Form**

Submission of the online *demographic information form* is voluntary and is not a precondition to receiving an award. The information will not be disclosed to review committee members.

## II. NARRATIVE COMPONENT

The narrative component consists of a written response that addresses the *Five Dimensions of Outstanding Teaching* and supplemental materials.

### Written Response

Before writing the narrative response, the applicant must select a concept that is appropriate and important for students to understand at the grade level taught and is related to more advanced concepts that will be learned later. The concept will be used in the narrative when responding to Dimensions One, Two and Three and when choosing a classroom lesson to video. While the video may show only one lesson, the applicant's written response may cover teaching strategies and assessments used in a series of related lessons. If you are submitting a computer science lesson, please refer to the FAQs in regards to which award category should you submit your application.

### Technical Specifications for the Written Response

It is important that each of the *Five Dimensions of Outstanding Teaching* prompts (for example, 1a, 1b, 1c) be discussed in the order in which they are presented in this application and that each dimension prompt is answered separately. Use of the *Dimensions of Outstanding Teaching* Template is helpful to capture Dimension responses. Once responses are complete, each response should be copied and pasted into text boxes within the portal. Once entered, responses can be edited if needed. Responses can also be entered directly in the portal.

Please note that there are no formatting requirements, as the specific format will be automatically completed once responses for each dimension are entered into the text boxes. The finished product will be automatically double-spaced, in the correct font-size, and with the correct margins. It will also include the applicant's teacher ID number and name. Please be advised that any special characters or formatting such as bolding, underlining, and indenting will disappear when you paste your responses into the text boxes. The only requirement is that the narrative must not exceed 25,000 characters in total. Spaces are included in the total character count.

### Supplemental Materials

Supplemental materials (SM) provide supporting evidence for the narrative responses to the *Five Dimensions of Outstanding Teaching*. The application may include supplemental materials such as lesson plans, samples of student work, assessment items, or publications (your own, or those you wish to cite in support of your written narrative). One of the pages within the supplemental materials must be used to cite references.

### Technical Specifications for Supplemental Materials

Supplemental materials:

- must be submitted as one single file not exceeding 6 pages;
- must not be a continuation of the administrative or narrative component. It may not include additional letters of recommendations or narrative responses to the Dimensions;
- must include a page for references or citations to attribute unoriginal work to the correct sources;
- should be labeled with applicant name, Teacher ID, and page number on every page;
- should be referenced within the written response (such as SM1, SM2, etc.); and
- may be submitted in the following formats: Adobe Portable Document Format (.pdf), Microsoft Word (.doc or .docx), Rich Text Files (.rtf), or Image Files (.gif, .jpeg, .jpg, .png).

## **The Five Dimensions of Outstanding Teaching – Written Response Prompts**

### **Dimension One: Mastery of content appropriate for the grade level taught.**

- 1a. Describe the concept that is important for students to learn and understand within the chosen lesson. 1b. Discuss why this concept is fundamental for them to learn and how it relates to more complex concepts that students will encounter in subsequent lessons, grades, or courses.
- 1c. Discuss the misconceptions or misunderstandings that students typically have with regard to this concept and explain how you address them in your chosen lesson.

### **Dimension Two: Use of instructional methods and strategies that are appropriate for the students in the classroom and that support student learning.**

- 2a. Describe the instructional approaches you used in the video to help students understand the concept addressed in Dimension One and explain how you identified and built on your students' prior knowledge.
- 2b. Describe, in general, your decision-making process when and how you utilize various instructional methods, strategies, or tools.
- 2c. Discuss the instructional methods and strategies you use to meet the learning needs of all students, challenging those with stronger knowledge while ensuring learning for those with less understanding.

### **Dimension Three: Effective use of student assessments to evaluate, monitor, and improve student learning.**

- 3a. Describe how you assessed student learning and achievement for the concept discussed in Dimension One and shown on the video, and how you use what you learned from the assessment to improve your teaching.
- 3b. Discuss other specific ways that you routinely assess and guide student learning. You may include examples of formative or summative techniques, including student presentations, projects, quizzes, unit exams, or other methods.
- 3c. Provide evidence of your teaching effectiveness as measured by student achievement on school, district or state assessments, or other external indicators of student learning or achievement.

### **Dimension Four: Reflective practice and life-long learning to improve teaching and student learning.**

- 4a. Discuss the more successful and less successful aspects of the instructional activities shown in the video and describe what you might do differently to improve student learning.
- 4b. Describe how reflection on your teaching practices helps you improve your classroom instruction. You may provide examples of lessons or activities you revised based on this reflection.
- 4c. Using a professional development experience cited in your résumé, describe how your participation in this activity has improved your teaching and enhanced your students' learning.

### **Dimension Five: Leadership in education outside the classroom.**

- 5a. Describe how you have supported other teachers, student teachers or interns through activities such as induction, mentoring, leading professional development activities, or co-teaching and how their teaching practice has since improved.
- 5b. Describe how you contribute to educational excellence at the school, district, state and/or national level.

### III. VIDEO COMPONENT

The video will be used as evidence by state and national selection committees when evaluating the applicant's performance on the *Five Dimensions of Outstanding Teaching*. The video must be consistent with the applicant's narrative and should convey the applicant's:

- depth of content knowledge as demonstrated by the clarity, precision and appropriateness of the explanations provided;
- ability to employ appropriate instructional methods which may include the use of lecture, instructional technology, demonstrations, hands-on activities, and group assignments; and
- ability to engage all students, maintain their interest in the lesson or activity, and assess student learning, as demonstrated by the applicant's and the students' asking and answering questions, giving demonstrations, or participating in discussions or small group work.

#### Technical Specifications for the Video

In order to provide in-depth evidence of the applicant's knowledge and abilities, the video:

- must correspond to the important concept chosen and discussed in Dimension One;
- must be of a single class, lesson or experience (e.g., field or lab activities) during the 2017-2018 school year;
- **must not be more than 30 minutes or one class period, whichever is shorter;**
- **must be continuous footage, unedited and devoid of any stopping and restarting of the camera;**
- **must come from a single camera and not contain multiple screens upon viewing;**
- must adhere to all district or school requirements and guidelines for parental release or student permission related to classroom video recording and sharing of student data;
- must not exceed 4 GB; and
- should be of sufficient quality so that the applicant's face and the students' faces are visible and voices are audible.

An applicant may resubmit the video from his or her 2015-2016 application if the video was originally filmed during the 2015-2016 school year and is allowable by local school and district usage policies.

Whenever the video is referenced in the written responses, a specific time stamp (TS) in minutes and seconds should accompany the written reference for ease of observation (such as TS 13:40, TS 23:30, etc.). No other supplementary video materials may be submitted.

The applicant will upload and submit the video online. **Applicants are highly encouraged to upload their video well in advance of the application deadline.** Applications cannot be submitted until video uploads have been processed and confirmed complete within the application portal. If you have any questions, please reference the FAQs or email [info@paemst.org](mailto:info@paemst.org) to discuss options.

Videos submitted as part of the application will be used throughout the PAEMST selection process and will be seen by reviewers, contractors managing the program, and NSF staff.



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## Scoring of the Application

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Reviewers will use all of the applicant's materials (résumé, letters of recommendation, narrative, supplemental materials and video) to score each of the *Five Dimensions of Outstanding Teaching*. Each dimension will be rated using a four-point scale and multiplied by a weighting factor. Weighting factors help reflect criteria priorities. The sum of all of the weighted Dimension scores is the total score.

**The four-point scale is as follows:**

- Excellent (4):** The applicant demonstrated outstanding knowledge, skills, or performance in this dimension with no significant errors or limitations.
- Very Good (3):** The applicant demonstrated strong knowledge, skills, or performance in this dimension with no significant errors or limitations.
- Good (2):** The applicant demonstrated limited knowledge, skills, or performance in this dimension or there were significant errors or weaknesses.
- Fair (1):** The applicant demonstrated limited knowledge, skills, or performance in this dimension and there were significant errors or weaknesses.

**Maximum possible score for each Dimension:**

Dimension One	Weighting factor = 7	4 x 7 = 28 points
Dimension Two	Weighting factor = 7	4 x 7 = 28 points
Dimension Three	Weighting factor = 6	4 x 6 = 24 points
Dimension Four	Weighting factor = 3	4 x 3 = 12 points
Dimension Five	Weighting factor = 2	4 x 2 = <u>8 points</u>

**Maximum possible total score** **100 points**

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## Frequently Asked Questions

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### General Questions

1. How should I approach the application process? Is there a recommended timeline?

**A:** After you confirm your eligibility, you should read through the entire application packet and review the entire online application portal. Plan the lesson or series of lessons you will be addressing in your video and your narrative. Once you have decided on the concept and corresponding lesson, you should work on the video and narrative in parallel, making sure to reflect on the video throughout your narrative response. Submission of the video well in advance of the deadline is highly encouraged to ensure there are no delays that prevent a timely submission of the application.

2. Do you offer informational webinars during the application process?

**A:** Yes. Please check the PAEMST website at [www.paemst.org](http://www.paemst.org) for a schedule of webinars offered throughout the year. Once scheduled, invitations to attend are also emailed to nominees.

3. I applied during the 2015-2016 cycle but did not receive the award. Can I resubmit any part of my application?

**A:** You can elect to re-apply with the same narrative and video from last cycle (2015-2016), provided that you review your narrative responses against the current prompts, as they may have changed. Additionally, you can only resubmit a video that was originally taken in 2015-2016. You are welcome to record a new video, or make updates to your narrative, but it is not a requirement. You would need to complete the other portions, namely the eligibility section, Teacher Information Form, Employment Verification Form and letters of recommendations.

4. If I have questions, is there a local or state contact I can reach?

**A:** State coordinators for the PAEMST program are available to answer questions about the awards program and provide assistance and mentoring to applicants. You can find your state coordinator on the PAEMST website ([https://www.paemst.org/coordinator/find\\_coordinator](https://www.paemst.org/coordinator/find_coordinator)). The contact information for your state coordinator is also provided within the application portal. If you have difficulty contacting your state coordinator, please contact the PAEMST Team at [info@paemst.org](mailto:info@paemst.org).

5. Is there a past awardee who might be able to help me with the application process?

**A:** Contact your State Coordinator to find out if a mentor is available in your state to assist you with the application process. Many mentors recommended by state coordinators are past awardees.

6. I have submitted my PAEMST application. When will state finalists and presidential awardees be notified?

**A:** Each state determines when state finalists are recognized. All applicants who completed an application should be informed of their state level status at least by January. Up to three candidates from each state in each award category are forwarded to the NSF for national consideration, where they will undergo a separate review process. The White House Office of Science and Technology Policy announces the awardees.

7. When will presidential awardees be honored in Washington, D.C.?

**A:** The White House Office of Science and Technology Policy is responsible for setting the dates for recognition activities, which depends on administrative scheduling. Awardees will be notified at the earliest possible date.

8. When are applications due?

**A:** The application deadline is **11:59 PM (Hawaii Aleutian Time) on May 1, 2018**. That is 5:59 AM Eastern Standard Time on May 2nd.

### **Eligibility**

1. If I am an engineering, technology, or computer science teacher, may I apply for the PAEMST award?

**A:** Yes. If you meet all of the eligibility criteria, you may apply. It is up to you as an engineering, technology, or computer science teacher to determine whether your lesson is most appropriate to submit under the Mathematics award category or the Science award category. Please consider in your state whether the courses that you offer or the classes that you teach are considered core or elective mathematics or science requirements for graduation. Also, if you are teaching a science concept (or an engineering, technology, or computer science concept with stronger connections to science concepts and/or standards than mathematics), you would likely select Science as your award category. If you are teaching a mathematics concept (or an engineering, technology, or computer science concept with stronger connections to mathematics concepts and/or standards than science), you would select Mathematics as your award category. If you have questions on whether lesson is more appropriate for the mathematics award category or the science award category, please contact your State Coordinator.

2. I taught for two years in a private school and three in a public school. Am I eligible?

**A:** Yes. If you have five years of full time K–12 teaching experience prior to this academic year, you are eligible. You do not need to be at the same school for five continuous years or at your current school for the last five years.

3. I taught part-time for eight years, and full time for three years. Am I eligible?

**A:** Yes. Eight years of part-time employment is equivalent to four years of full-time employment. With a total of seven years of teaching, you are eligible to apply for this award.

4. I taught at the university for three years and two years in a public school. Am I eligible?

**A:** No. You must have completed five years of full time K–12 teaching experience to be eligible to apply.

5. If I spend part of the day teaching grade seven and part of the day teaching grade six, should I compete at the elementary or secondary level?

**A:** You may choose the level at which to apply.

6. Does student teaching count toward the five-year teaching requirement?

**A:** No. Student teaching does not count toward the teaching requirement.

7. I teach my class in Spanish; can I submit my video and application in Spanish?

**A:** Yes, you may submit your video and your application in Spanish.

8. I team-teach. I do not have my own classroom of students. May I apply for this award?

**A:** Yes, as an individual, you may apply. Teachers who teach in teams are eligible as long as they are full-time school/district employees who teach K-12 grade students at least 50% of the school's allotted instructional time. You must be responsible for developing and delivering math or science instruction on an on-going basis to the students, and you should be responsible for monitoring the students' progress throughout the school year. Again, please note that teachers apply as individuals. The program does not accept team applications. Teachers who teach in teams may not submit identical narratives and/or videos.

9. I am a high school music teacher and I incorporate mathematics concepts into my music lessons. Am I eligible?

**A:** No. We expect mathematics or science instruction and/or the teaching of mathematics and science concepts to be a part of a teacher's contracted teaching responsibilities. If your primary responsibility is to teach music and you are the school's music teacher, then you are not eligible.

10. The majority of my day, I teach teachers. However, I do model lessons to students on occasion and I also teach an after-school robotics program. Does any of this count towards my 50% teaching (to students) time requirement?

**A:** No. Teachers who spend greater than 50% of their time teaching teachers, coaching teachers, or modeling lessons on behalf of teachers (instructional coaches for example) are not eligible. Likewise, activities outside of school hours such as after-school projects, tutoring sessions, or extra-curricular math or science-related activities are not part of the allotted 50% time requirement.

## **Administrative**

1. What level of detail do I need to provide in the Teacher Information Form in regards to my teaching assignment so I'm not considered ineligible?

**A:** It should be clear from your description that you teach students at least 50% of the school's allotted instructional time. It should be clear what your teaching load is in given week, quarter, and/or year. It should be clear that you are responsible for developing and delivering science, technology, engineer, mathematics, or computer science instruction on an on-going basis to K-12<sup>th</sup> grade students. It also should be clear that you are responsible for assessing/monitoring their learning long-term as well. If you have any responsibilities in addition of being a classroom teacher, either in the school or without, it should be clear you still meet the minimum requirement of providing classroom instruction at least 50% of the school's allocated instructional time.

2. My principal is new. Can I have my assistant principal or the preceding principal write the letter of recommendation?

**A:** The Employment Verification Form must be signed by your current principal. Likewise, you are required to have a letter of recommendation from your principal. However, your principal can defer the letter of recommendation to someone who formally supervises the applicant instead. The letter cannot be reassigned to another teacher, coach, coordinator, or anyone who informally supervises, mentors, coaches, or supports the teacher in his or her instruction at the school or district.

3. Is there a specific format that I need to follow when providing references?

**A:** Reference information is required. Applicants should follow accepted scholarly practices in providing citations for source materials relied upon when preparing any portion of the application. In general, each reference should include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. If a website address is readily available, that information should be included in the citation.

### **Narrative**

4. Does the narrative need to be closely tied to the video?

**A:** Yes. The lesson captured in the video must correspond to the concept chosen in *Dimension One*. However, the narrative responses may address a series of related lessons beyond the single lesson, class, or experience seen in the video.

5. What are the formatting requirements for the narrative?

**A:** There are no formatting requirements, as the specific format will be automatically completed once you enter your responses for each dimension into the text boxes. Your finished product will be automatically double-spaced, in the correct font-size, and with the correct margins. It will also include your teacher ID number and name. Please be advised that any special characters or formatting such as bolding, underlining, and indenting will disappear when you paste your responses into the text boxes.

6. What is the character limit for the narrative? Does the limit include spaces?

**A:** The total character limit for your full written response is 25,000 characters, and that limit does include spaces. Please note that the character counts listed for each dimension are only suggestions, and you are free to exceed those counts as long as the total number of characters in the full narrative submission does not exceed 25,000.

7. For *Dimension Three*, when I am asked to provide evidence for students' success, must I only cite national, state, district, or school-mandated assessments?

**A:** No. Any form of assessment that helps you to evaluate student learning may be used and referenced in *Dimension 3a* and *3b*. For *Dimension 3c*, the assessments used ideally should not be self-generated or self-administered. When reporting the results of your assessment(s), try to be empirical, quantitative, and as detailed as possible. Provide the results (as supplemental materials if you'd like) and indicate how you analyzed the results to help you determine student success.

8. How should I respond to *Dimension 3c* if I don't have external assessments?

**A:** This is a very common issue that many of our applicants note when addressing *Dimension 3c*. The focus of *Dimension 3c* is on external assessments that you may have or may give to your students. These would be assessments that you did not create yourself. You may articulate what your students do not get tested on, but then you must state which external indicators exist that show student success and convey your effectiveness as their teacher. This prompt is not limited to this year's students, nor is it limited to *Dimension 1*'s concept or lesson.

9. What is meant by “reflective practice” in *Dimension Four*?

**A:** Reflective practice happens after teaching a lesson when you look back and evaluate the effectiveness and success of the classroom experience. You should evaluate what worked particularly well and what did not go exactly as you expected. Consider what kinds of changes you could make to improve the lesson. Discuss what you might implement the next time you teach this same content material to better meet the needs of all students in the class.

10. In *Dimension Five*, can I just provide a list of my professional development experiences?

**A:** No, your résumé should provide this. Choose one of your professional development experiences and expand on how it specifically made an impact on your teaching, and how student learning was influenced as a result.

## Video

1. My class period is only 20 minutes long. Can I use the remaining 10 minutes to provide supplemental material?

**A:** No. The video is to capture one class (up to 30 minutes long). If the class is 20 minutes long, then the video can only be up to 20 minutes long. If you elect to only capture 15, 10, or only 5 minutes of that 20-minute class, that is at the discretion of the applicant.

2. My class period is 45 minutes long. Does my video have to start right at the beginning of class or can I start 15 minutes into the class in order to show the last 30 minutes?

**A:** The video is to capture one class (up to 30 minutes long). If your class period is longer than 30 minutes, you will need to decide when to start your video during the class. If the class is longer than 30 minutes and you end the video before the class ends, it's helpful to provide some context in the narrative about what occurred after the video ended. If you don't start the video at the very beginning of your class in an effort to capture the end of the class, it's helpful to give some context in the narrative about what occurred before the video started.

3. I recorded my video but I think my camera stopped and restarted during the filming. Will this present a problem?

**A:** That is a common occurrence as many cameras have automatic shutoff features, or save videos into multiple files. If there is a break between your video files of less than one second, you will need to combine the files prior to upload, so that it is one file of continuous footage. Once combined, please upload it to your application and send us an email with the time at which the jumps occur. We will check the video at the times of the jumps, and let you know if it is acceptable. Please let us know as soon as possible if you experience video issues. Video issues reported after the application has closed may not be accepted.

If the break is longer than a few seconds, you will need to either retake the video or only submit one of the video files. If the portion you submit does not start at the very beginning of class, it's helpful to give some context in the narrative about what occurred before the video started. Likewise, if the video does not show the end of the class, it's helpful to provide some context in the narrative about what occurred after the video ended.

4. To record my video, do I need to hire a professional?

**A:** Your videographer can be a professional, a colleague, a student from your class, or a tripod that you move about the classroom as needed. If someone does record the video, review the requirements of the video with the videographer. Make certain the videographer is familiar with the equipment and understands the kinds of interactions that should be captured. Remember the video should clearly show the students' faces and their actions and interactions during the lesson. Historically, the greatest difficulty has been in hearing student-to-student interactions and students' responses to teachers' questions due to excessive background noise. Therefore, use the best technology available to maximize audio and video quality. Try to minimize the distance between the camera and the activities being taped. Consider using multiple microphones.

5. Since the video should include my students' responses, is there any way I can help them focus on me during the lesson and not the camera?

**A:** Consider videotaping a few classes prior to your application lesson to help you and your students get used to having the camera in the classroom. Videotaping your classroom a few times in advance of your application lesson can also help to identify the technical problems (e.g., lighting, sound) involved in capturing a lesson on video. When capturing your application lesson, consider discussing with your students what you are doing with the lesson ahead of time so they take some ownership for a successful videotaping session. Discuss cooperation.

6. While I was videotaping, there was an interruption from the main office. Can I cut that conversation out of the video?

**A:** No. Breaks or edits in your video will cause your application to be disqualified. When you have finished recording a video, review it to be sure the sound was clear, the image was steady, and the lesson was continuous (without any breaks or stops). If you make a mistake during the lesson or realize later while watching the video you made a mistake during the lesson, do not attempt to edit the video; rather, address the error in your narrative. You may want to consider completing your recording early in the application process/school year so that if you decide to record a brand-new lesson, you will have time to do so.

7. Besides myself and my students, what else might a reviewer notice in the video?

**A:** Reviewers look to see if the correct safety precautions (the use of safety goggles for example) were taken for all hands-on activities and demonstrations. Reviewers also notice the learning environment in general and whether the classroom environment is appropriate and supportive of student learning.

8. My video is not uploading. What do I do?

**A:** We understand that uploading videos can be problematic and can take a long time. If you have tried to upload your video multiple times and keep seeing an error message, please contact us at [info@paemst.org](mailto:info@paemst.org).

9. Do I have to capture student participation in hands-on activities for my video?

**A:** While lecture may have its place in a classroom, for the application lesson, standing or sitting in front of the classroom and lecturing to students for the full 30 minutes is not recommended. You may not need hands-on activities per se but you do need to demonstrate student engagement in the video. Be sure your students are actively involved and engaged in the lesson you are videotaping. Students should participate in the learning experience. Show one-to-one teacher-student interaction. Show small group discussions. Communicate with students on their physical level. Question students about what they are doing. Provide evidence of student insights and discoveries. Show your passion for teaching. Provide evidence of your communication skills and questioning strategies that are likely to engage student thinking.

### Technical Questions

1. I am working on my *Teacher Information Form*. Even though it seems that everything is complete, the menu still shows this form as "in progress." Why is my form incomplete?

**A:** Open your form and check that all the fields have been filled in and are complete. Fields cannot be left blank. For example, in the percentage section, if a value is zero, you must enter "0." Also, check that percentages total to exactly 100 percent. (You must round percentages to the nearest whole number). In addition, a red mark will appear next to fields containing errors. The related error message will provide information to help you complete the item correctly.

2. I have elected not to provide my information on the Demographic Information Form. What do I do to make sure that section of the application is labeled as complete in the application portal?

**A:** If the applicant does not wish to provide this information, he or she may click the checkbox that is labeled "Check here if you do not wish to provide the below information" and then click on **Save**. This section will now be marked as complete.

3. Does my résumé need to follow the formatting guidelines for the *Written Response*?

**A:** No, the résumé, supplemental materials, and letters of recommendation may have different formatting. However, the font used must be easy for reviewers to read, and the materials should not exceed the specified page limits.

4. My Letters of Recommendation are listed as "pending" on the PAEMST Portal, but my writers told me they were uploaded. Are my letters complete?

**A:** If your letters are shown as pending, they are not complete. This means that your letter writers have not yet successfully uploaded their letters via the PAEMST portal.

5. Is there a preferred video format or a maximum video size?

**A:** There are no restrictions on the video file type, though we recommend an mp3 or mov file type. There is a maximum video file size of 4GB. Please be advised that uploading your video can take a long time depending on your Internet connection. Please be prepared for the wait.

6. Can I upload 6 *files* or 6 *pages* of supplemental materials?

**A:** Supplemental materials must be uploaded as one single file, and may not exceed 6 total pages.

7. I am having trouble uploading my files to my online application. What should I do?

**A:** If you are unable to upload files, please contact our technical support staff at [application@paemst.org](mailto:application@paemst.org).



8. My *Supplemental Materials* section still says "not started". How do I indicate that this section is complete?

**A:** Click on the *Supplemental Materials* section. Mark the checkbox at the bottom that says, "I do not intend to include any Supplemental Materials" and then click on **Save**. This section should now be marked as complete.

9. I need technical help, whom can I contact?

**A:** Technical assistance is available between 9 a.m. and 5 p.m. EST, Monday through Friday.

E-mail: [application@paemst.org](mailto:application@paemst.org)

Toll-free phone: (855) 723-6780

## **About The National Science Foundation**

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels, and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

## Privacy Act and Public Burden Statements

The information requested on the application materials is solicited under the authority of the National Science Foundation Act of 1950, as amended. It will be used in connection with the selection of qualified applicants and may be disclosed to qualified reviewers and staff assistants as part of the review process; to the institution the nominee, applicant or fellow is attending or is planning to attend or is employed by for the purpose of facilitating review or award decisions, or administering fellowships or awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing data regarding applicants or nominees as part of the proposal review process, or in order to coordinate programs; to congressional officials for the purpose of congratulating awardees; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information from this system may be merged with other computer files to carry out statistical studies the results of which do not identify individuals. Notice of the agency's decision may be given to nominators, and disclosure may be made of awardees' names, home institutions, and fields of study for public information purposes. For fellows or awardees receiving stipends directly from the government, information is transmitted to the Department of the Treasury to make payments. See System of Records, NSF-12, "Fellowships and Other Awards," 63 Federal Register 265 (January 5, 1998). Submission of the information is voluntary; however, failure to provide full and complete information may reduce the possibility of your receiving an award.

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