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ELEMENTary

ELEMENTary

The periodic table of elements de-mystified

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Table of Contents

	<i>Page:</i>
• <i>Goals and Objectives</i>	<i>3</i>
• <i>Course Overview</i>	<i>4</i>
• <i>Lesson Plan</i>	<i>5</i>
• <i>Materials</i>	<i>6</i>
• <i>Ice Breaker Activity</i>	<i>7</i>
• <i>Table of Elements</i>	<i>8</i>
• <i>List of Ingredients</i>	<i>9</i>
• <i>Google It</i>	<i>10</i>
• <i>Additional Lesson Plan Ideas for Math</i>	<i>11</i>
• <i>Additional Lesson Plan Ideas for L.A./Writing</i>	<i>12</i>
• <i>Assessment Ideas for Math</i>	<i>13</i>
• <i>Assessment Ideas for L.A./Writing</i>	<i>14</i>
• <i>Name Play</i>	<i>15</i>
• <i>Pictures</i>	<i>16</i>

Goals and Objectives

Aligned with Sunshine State Standards for Science, Math, Reading and Language Arts and Writing

Physical Science

- *SC.5.P.8.4 Explore the scientific theory of atoms (also called atomic theory) by recognizing that all matter is composed of parts that are too small to be seen without magnification.*

Reading/LA/Writing

- *LAFS.5.RI.2.4 Determine the meaning of general academic-specific words and phrases in a text relevant to a grade 5 topic or subject area*
- *LAFS.5.W.3.8 Recall relevant information from experiences or gather relevant information from print and digital sources; summarize or paraphrase information in notes and finished work, and provide a list of sources*

Math

- *MAFS.5.MD.2.2 Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$ and so on). Use operations on fractions for this grade to solve problems involving information presented in line plots.*

Course Overview

- *Designed as a five to seven day hands on lesson .*
- *Objective: De-mystify the periodic table of elements.*
- *Lesson includes activities and assessment suggestions for science, math, language arts and reading.*
- *You may select to complete it as an individual class, as a grade level, or with other grade levels.*
- *I encourage you to have general and special education students working together.*
- *Use the Ice Breaker idea with your students.*
- *Students will be able to research information, understand the vocabulary and apply their knowledge.*
- *When activities are carefully planned anticipate few, if any, behavioral issues .*
- *Students will be extremely busy working in pairs and groups. Kids will have fun while learning.*

Lesson Plan

- *Students will understand that the human body is completely made up of elements listed on the Periodic Table.*
- *1- Begin by asking: “What do you think you are made of?”*
- *2- Have students look online and find the elements in the human body*
- *3- Divide class into groups & have them trace their body on roll paper*
- *4- Write the elements that they found online on “their body” on roll paper/body cut out*
- *5- Make a line plot listing the elements from most to least*
- *6- Respond to the prompt: “Write to explain why trace elements are just as important as the rest.”*

Materials

- *A large copy of the periodic table (shower curtain)*
- *Access to internet*
- *Roll paper*
- *Pencils/pens*
- *Markers/highlighters*
- *“Body” handout*
- *Regular lined paper*
- *Index cards*

Ice Breaker Activity

- *Write your first name on a tent*
- *What are the elements of your name? (How many letters? How many vowels? How many consonants? How many syllables?)*
- *Can your name have any letters that are not in the alphabet?*

Table of elements

- *Quickly look at the table of elements*
- *What do you notice?*
- *Are there any patterns?*
- *1-*
- *2-*
- *3-*
- *4-*

List of ingredients

- *The periodic table of elements is a list of ingredients*
- *It lists ALL the ingredients in EVERYTHING in our known universe*
- *What makes up water?*
- *What makes up salt?*
- *What makes up YOU?*

Google it

- 1- Find the elements that make up the human body*
- 2- List Major elements from greatest to least*
- 3- List the trace elements from greatest to least*
- 4- Are trace elements less important than major elements? What do you think?*

Additional Lesson Plan Ideas for Math

Have students:

- *List elements in the human body on:*
 - *A line plot in fraction form.*
 - *A line plot in decimal form.*
- *List elements in their pet's body & compare it to the human body.*
- *Write a rap song about the elements in their body. (Writing)*
- *Write their full name incorporating letters from the Periodic Elements. (Science/ Writing)*

Additional Lesson Plan Ideas for Language Arts/Writing

Have students

- *Write a rap song about the elements in their body. (Writing)*
- *Write their full name incorporating letters from the Periodic Elements. (Science/ Writing)*

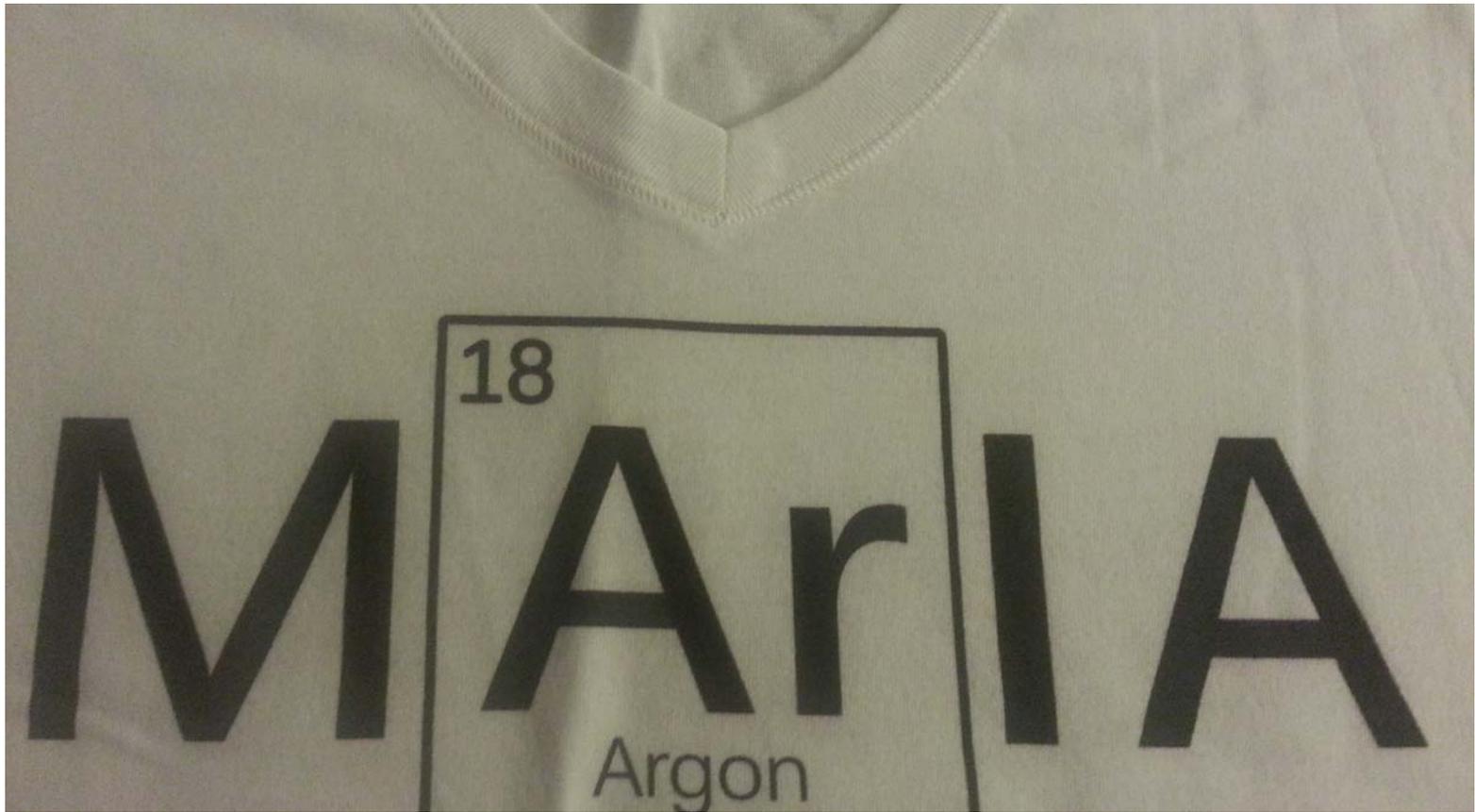
Assessment Ideas for Math

- *Make a line plot listing the elements from the most to least*
- *List elements in:*
 - *The human body on a line plot in fraction form.*
 - *The human body on a line plot in decimal form.*
 - *Their pet's body & compare it to the human body.*

Assessment Ideas for L.A./Writing

- *Write the elements that they found online on “their body” on roll paper/body cut out*
- *Respond to the prompt: “Write to explain why trace elements are just as important as the rest.”*
- *Write a rap song about the elements in their body. (Writing)*
- *Write their full name incorporating letters from the Periodic Elements.*

Name Play



Directions for Name Play

1- Have students write full name on a piece of paper.

2- Have students find “ELEMENTS” from the Periodic Table in their name.

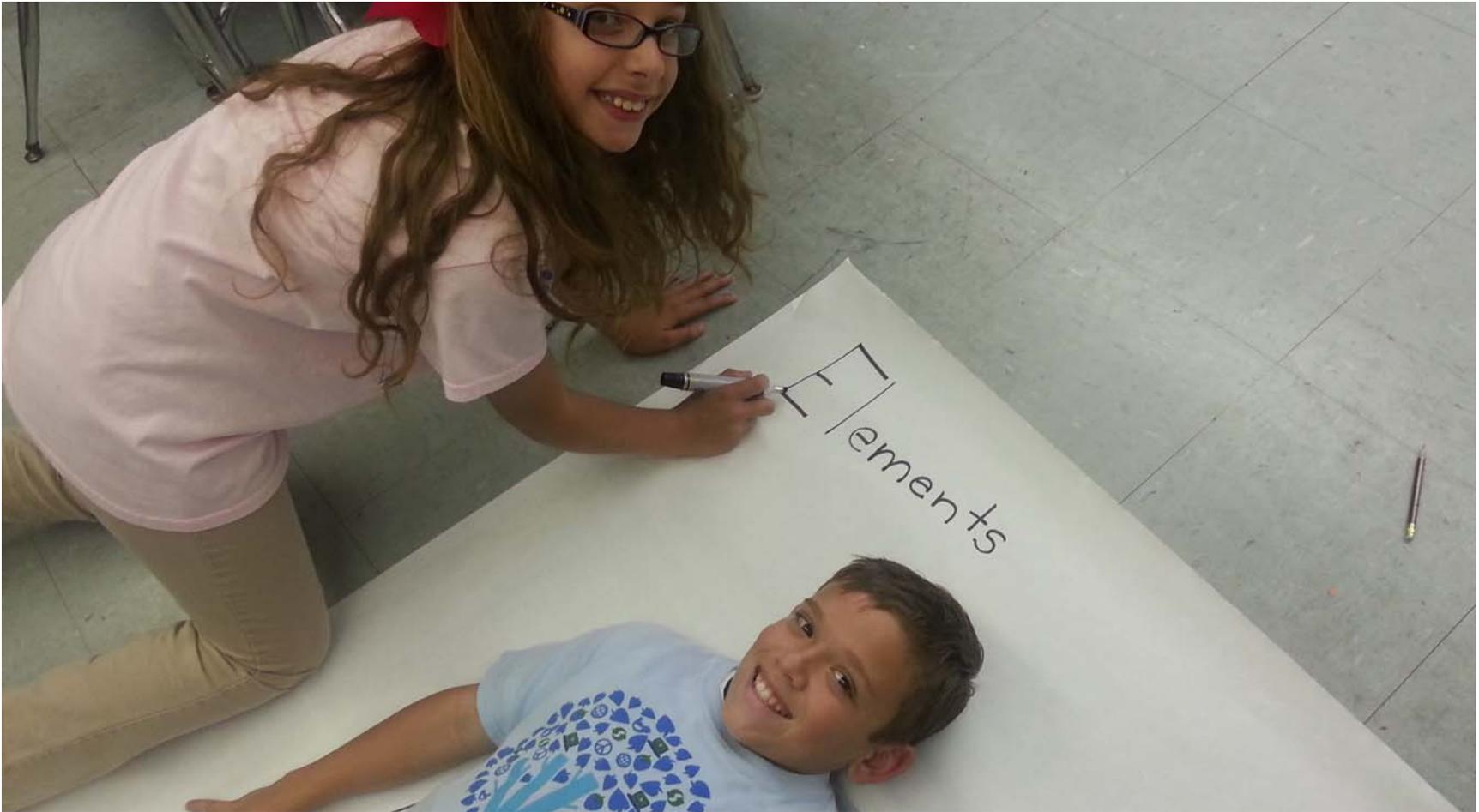
3- Students count letters in name (first/middle or last) and get that many index cards.

4- Students create their “ELEMENT” name using the index cards.

Students tracing body



Students tracing body



Media Release Form:

To obtain parent permission before photographing any student. This procedure conforms with the confidentiality laws.

(Date)

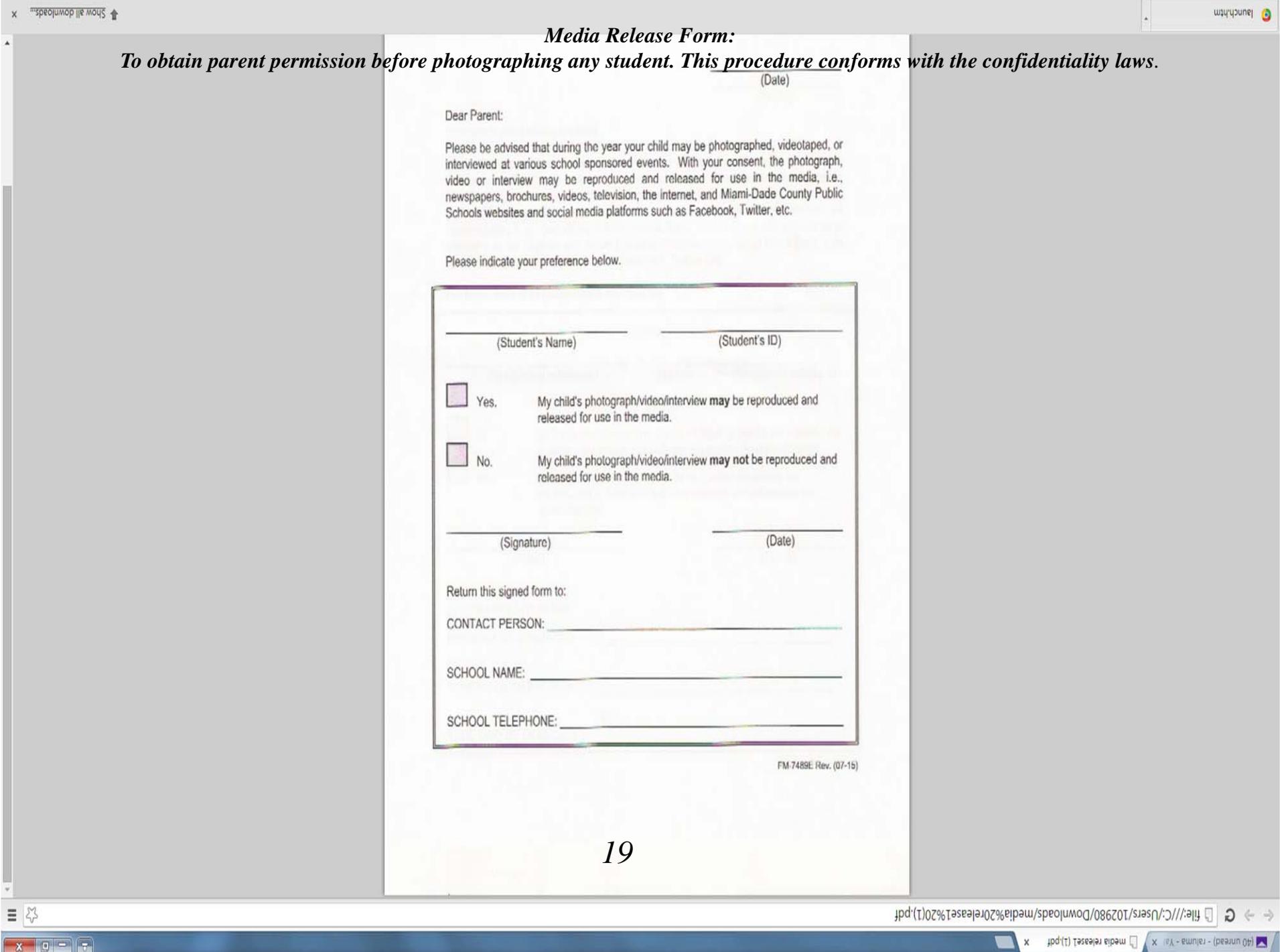
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Please be advised that during the year your child may be photographed, videotaped, or interviewed at various school sponsored events. With your consent, the photograph, video or interview may be reproduced and released for use in the media, i.e., newspapers, brochures, videos, television, the internet, and Miami-Dade County Public Schools websites and social media platforms such as Facebook, Twitter, etc.

Please indicate your preference below.

_____	_____
(Student's Name)	(Student's ID)
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(Signature)	(Date)
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SCHOOL NAME: _____	
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FM 7489E Rev. (07-15)



Media Release Form - Spanish

_____ (Fecha)

Estimado/a padre/madre o tutor/a:

Por la presente le advertimos que durante el curso escolar, posiblemente a su niño/a se le tome una fotografía, se le haga una grabación de video o se le entreviste en diversos eventos auspiciados por la escuela. Con su consentimiento, se podrá reproducir y publicar la fotografía, video o entrevista para ser entregada a los medios de comunicación, p. ej., periódicos, folletos, videos, televisión, o para su uso a través de la internet y de las páginas web de las Escuelas Públicas del Condado Miami-Dade y en plataformas de medios sociales como Facebook, Twitter, etc.

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M-DCPS teachers, media specialists, counselors or assistant principals may request funds to implement an IMPACT II idea, teaching strategy or project from the Idea EXPO workshops and/or curriculum ideas profiled annually in the *Ideas with IMPACT* catalogs from 1990 to the current year, 2015-16. Most catalogs can be viewed at The Education Fund website at www.educationfund.org under the heading, "Publications."

- Open to all K-12 M-DCPS teachers, counselors, media specialists
- Quick and easy reporting requirements
- Grants range from \$150 - \$400
- Grant recipients recognized at an Awards Reception

To apply, you must contact the teacher who developed the idea before submitting your application. Contact can be made by attending a workshop given by the disseminator, communicating via email or telephone, by visiting the disseminator in their classroom, or by having the disseminator visit your classroom.

Project funds are to be spent within the current school year or an extension may be requested. An expense report with receipts is required by May 2, 2016.

**APPLICATION DEADLINE:
December 11, 2015**

Apply online at www.educationfund.org

For more information, contact:

Edwina Lau, Program Director

305.558.4544, ext. 113

elau@educationfund.org

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