A Curriculum Enrichment Infusion Process for Jazzing Up the Standards Driven Curriculum

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One of the *biggest challenges* facing most teachers is how to balance the need to provide students with enrichment opportunities within the context of an overly prescribed curriculum in their general education courses.

The Magic Key for Promoting Infusion Activities Into Any and All Aspects of the Prescribed Curriculum





- 1. Teacher creativity is the key to successful infusion and using infusion makes teaching more fun.
- 2. The more teachers know about student interest and strengths through Assessment *FOR* Learning, the more effective infusion will be.
- 3. The use of technology makes infusion easier for teachers.



Teachers Don't Love Their Jobs, and Students Don't Love Their Teachers

Gallup's newly released State of America's Schools report indicates that nearly 70 percent of K-12 teachers surveyed in 2012 do not feel engaged in their work. Nearly half of teachers reported feeling daily stress. When compared to 12 other occupational groups, teachers were least likely to feel their "opinions seem to count" at work; yet the survey found teachers tended to be satisfied with their lives overall.

The report also surveyed 600,000 students in grades five through 12 on their feelings of hope, engagement, and well-being. Forty-five percent of students felt "not engaged" or "actively disengaged" from school, with rates of disengagement increasing by grade level. Teachers have the biggest influence on student-engagement levels: Students who have "at least one teacher who makes me excited about my future" and feel their school is "committed to building the strengths of each student" were 30 times more likely to be engaged at school.

There is a very simple lesson here for all of us From Preschool to Graduate School...

Let's make teaching and learning more fun!





An Infusion Based Approach for Striking a Balance Between Prescription and Personalization









better when we have these types of information about our students

Two Kinds of Assessment



Performance Based Assessment

Situational Curiosity Observations Interests E.g., Enrichment Learning Styles Clusters, Extra Curricular **Expression Styles Enjoyment of Learning** Collaboration Cooperation Teacher, Self, & Peer Rating Planning Scales Self-Regulation Organizing





Use Infusion to Add Enrichment Activities to Prescribed Curriculum

How Infusion Works





Rules for Brainstorming

- 1. There are no dumb ideas. Period. It is a brainstorming session, not a serious matter that requires only serious solutions. Remember, this is one of the more fun tools of quality, so keep the entire team involved!
- 2. Don't criticize other people's ideas. This is not a debate, discussion or forum for one person to display superiority over another.
- **3. Build on other people's ideas.** Often an idea suggested by one person can trigger a bigger and/or better idea by another person. Or a variation of an idea on the board could be the next "velcro" idea. It is this building of ideas that leads to out of the box thinking and fantastic ideas.

4. Reverse the thought of "quality over quantity."

Here we want quantity; the more creative ideas the better. As a facilitator, you can even make it a challenge to come up with as many ideas as possible and compare this team's performance to the last brainstorming session you conducted.

Other brainstorming preparation questions:

Who will lead or facilitate the brainstorming session?

Who will participate in the brainstorming session?

Who can write very quickly to record the brainstormed ideas without slowing down the group? Where will the brainstorming session be held?

What materials are needed for brainstorming (easel, paper, white board, pens, etc.)?

What is my brainstorming session desired outcome?

Injecting Enrichment Activities Into Any and All Regular Curriculum Topics

ACT ON

The Rules (Apply as many as possible)

- 1. Not always a single, predetermined correct answer
- 2. Something kids do rather than sit and listen
- 3. Something that is fun for most kids
- 4. Something that has various levels of challenge to which interested students can escalate





The Standards (Outcomes) Based Curriculum

If you would persuade, you must appeal first to interest rather than intellect.

Benjamin Franklin American statesman and inventor

Use Infusion to Add Enrichment Activities to Prescribed Curriculum

How Infusion Works





The Standards (Outcomes) Based Curriculum

If you would persuade, you must appeal first to interest rather than intellect.

Benjamin Franklin American statesman and inventor





New Jersey resembles an Indian head.

Minnesota looks like a chef's hat.

Louisiana is shaped like rain boots.

Iowa looks like a face.

Example of Infusion in Practice



Ten minutes of brainstorming with a group of teachers

- A Rap State Song
- State Shapes made out of play dough
- Travel game (find clues to get to destination like Carmen Sandiego)
- Route planning to get there (most efficient way to visit all capitals)
- Who am I? game to match states and capitals
- Students make board games
- History of transportation determining capital location
- Character sketch of state and capital
- Photographic essay of state/capital using Internet photos
- Create a flag based on information researched about the state
- Create political cartoons and original songs about the state and capital
- Debate over a better city for a state capitol
- Design a state motto/logo
- Create a limerick/poem
- Design a Jeopardy-style game to learn capitals and states using given supplies and time limit

- Write a song/poem/limerick that students can sing about capitals and states
- Profiles of most Famous men/women from the state
- Write/choreograph state song
- Guessing game on state bird/flower
- PR material to get tourists to state
- A dart board (more points for smaller states)
- Origin of state/capital names
- Debate over better capitol locations
- Major events that took place in the state (Wright Brothers @ Kittyhawk)

Teacher Creativity

24 Ideas in 10 Minutes



The Great State Geography Challenge Quiz No. 1

Draw a line to match the state name to its corresponding interesting feature.

State Name	Interesting Feature
Alaska	It was the first state to allow women to vote.
California	It is the birthplace of the ice cream cone.
Connecticut	It is so large that it oovers as many square miles as the other five New England states combined.
Georgia	Its economy is so large that if it were a country, it would rank seventh in the entire world.
Kentucky	Home of the first Krispy Kreme doughnut store.
Maine	One out of every 64 people have a pilot's license.
Missouri	Home of the world's largest office building, The Pentagon.
North Carolina	Has more than 6\$ billion in gold underneath Fort Knox.
Virginia	It was here, in 1886, that pharmacist John Pemberton made the first vat of Coca-Colainteresting!
Wyaming	The Frisbee was invented here at Yale University.

Best Extension to come out of this activity.

I asked her and everybody asks me...



http://www.cheapcookiecutters.com/products/united-states-cookie-cutter-set

Using Differentiation for Two Math Questions

- 1. How much is 6 x 4?
- 2. How many different ways can you make 24?





Ways Can I Make 24? How Many Multiplication Addition + Sub Addition 6x4=24 20+5-1=24 23+1=24 30-10+4-24 8×3=24 33+3=34 10+10+5-1=24 12×2=24 etc. 19+13= 34 Addition + Mylt. ełc. Division Subtraction 10+2×2=34 48-2=24 3×10-6=24 25-1=24 96+4=24 4×5+4=24 34-10=24 etc. 124-100=24 Mult + Division 6x8+2=24 etc. 12×12+6=24

Advanced 24-24-20 4-+4-8=24 x=16 91100 ×210 9=4×+20 VF+JF+20=24 4!=24 12 16 20 110002=24 X: {20,40,18,22,20} = 24 Sit $1P \times B = 66^{\circ}$, then $< A = 24^{\circ}$ $\frac{-a}{\zeta(-1)} = a^{4}$ Én-4-24 ${}^{4}P_{u} = \frac{4!}{(4-4)!} = a4$ 1:0

Middle Grade Reading and Language Arts Teachers

What are your biggest challenges?

How can we you make the stories or books we are using more interesting to students?

Create a 30-second movie commercial or trailer podcast for the story. Design a room that a character in the story would like. Design a cover if the story were made into a book. Turn the story into a short play. Design a movie poster for the story. Pretend you are a talk-show host and create an interview with the author of the story. Rewrite the story using a new setting. Tell the story through a different character. Dress up like the character and retell the story. Be a costume designer for a movie version of the story. Create a graphic novel version of the story. Suggest what might be a good sequel to this story. Create a rap or song about the story. pictures. Be a newscaster reporting the story. Create some *Jeopardy*! questions about the story. Link a real social or societal problem that relates to the story.

Create two or three illustration to show a photo album of the story in

List other stories or books that have a similar theme.

Write an advice column for the characters in the story.

Rewrite the story as a picture book for young children.





The Role of How-To books in Infusion



A Kids Can! Book

The Kids' Book of



Questions Raised by Scientists - Organisms



Science Unit on Birds

Design a new species of bird adapted to a biome.

"Fun Facts" deck of cards about birds Sketch internal bird anatomy.

Podcast on bird calls Edit a Wikipedia article on birds.

Glog on a species of bird

Classify birds by habitat and diet. Podcast on bird calls Write a short play about birds.

Prezi on birds of prev

Diorama depicting birds of a habitat

Birds

(topic)

Compare birds' beaks through sketches. Borad game about birds Debate whether birds

should be kept as pets.

Bird classification card game E-Photo album of

Mystery game with bird feathers

state birds

Map migratory flight patterns.

Dissect owl pellets.

Virtual bird dissection

Poem about birds

Infusion Activity		
Web:		
ELA Small Group		



Make a social media page for a character (FB/Twitter/Insta)	Write a letter from the character's perspective	Draw a comic strip of a plot event
Write a diary entry from perspective of various characters	Plot the events of the novel on a map	Film a movie trailer for the book
Design a 3-D model of the island	Topic: The Lord of The Flies	Rewrite the ending of the book to have a different outcome
Design a board game based on the novel	Create a Symbol Box	Draw an Open Mind Symbol Chart
Create a photographic essay	Engage in a debate (Ethical issues, psychological issues, gender issues)	Record a podcast episode on your response to the novel and issues it raises



The Role of Technology in Infusion, Differentiation, and Jazzing Up the Regular Curriculum



Two Quick Examples

 Unit on the U. S. Constitution
 Unit on Ancient Egypt

Required Topic: Study of The U. S. Constitution

	11		
Directions Review the resources Renzi was our country's first consti Government? 3) Describe the proceedings of the Constitution must prevail in a society if the	Directions Review the resources Renz was our country's first consti Government? 3) Describe the proceedings of the Constituti must prevail in a society if the	Directions Review the resources Ren was our country's first cons Government? 3) Describe t proceedings of the Constitu must prevail in a society if t	Directions Review the resources Renzulli has selected for you, and a was our country's first constitution called? 2) What are the Government? 3) Describe the Fifth Amendment. 4) How mu proceedings of the Constitutional Convention? 5) What did must prevail in a society if the people hoped to maintain a fr
Required Activities To Rev Enrichment Activity Title	Required Activities To Rev Enrichment Activity Title	Required Activities To Re Enrichment Activity Title	Required Activities To Review:
Constitutional Knowledge Celebrate the Constitution - Madison's Notes Are Missin	Constitutional Knowledge Celebrate the Constitution - Madison's Notes Are Missin	Constitutional Knowledge Celebrate the Constitution Madison's Notes Are Miss	Enrichment Activity Title Enrichment Activity Title Constitutional Knowledge Constitution - The Game! Celebrate the Constitution - The Game! Constitution Madison's Notes Are Missing! Constitution
Activities Matched To You Enrichment Activity Title	Activities Matched To You	Activities Matched To Yo	Activities Matched To Your Profile:
Ben's Guide to the U.S. Gov A History of US: Revolution Our America	<u>Celebrate the Constitution -</u> <u>Stand Up for Your Rights</u> <u>Are You Smarter Than a Fif</u>	Enrichment Activity Title <u>America's Story</u> <u>Our America</u>	Enrichment Activity Title A Revolutionary WebQuest Ask a Civics Question
Constitution of the United S Benjamin Franklin: An Extra Creating the United States	The Patriot Papers Activitie Our America Restore the Bill of Rights	Smithsonian American Art The Benjamin Franklin Te The Scales of Justice	Jeffersonian Era Understanding the Constitution The New Nation
The Scales of Justice This Nation	Flashcard Exchange	State WebQuest	Constitutional Knowledge











Teacher Use – Teaching a unit on Ancient Egypt

Advanced Search Select a Grade and Ability Level:	μ
Check All - Clear All	
□ 1-2 Low ☑ 3-5 Low ☑ 6-9 Low □ 10-12 Low	
🔲 1-2 Medium 🗹 3-5 Medium 🗹 6-9 Medium 🔲 10-12 Medium	
□ 1-2 High 🗹 3-5 High □ 6-9 High □ 10-12 High	n section features information about that culture's
Please type in a keyword to search the enrichment activities: Egypt	e interactive, so when you see a picture of a

🧐 On-Line Activities & Classes

Fun With Mummies

This amazing interactive website will help you explore the ancient Egyptian culture. Click on one of the pictures to prepare a mummy for burial and learn all that had to be done to each body, to decipher images left on a tomb, to learn more about theartwork of ancient Egypt, or to see a timeline of ancient Egypt. View Activity

Museum of Science Virtual Exhibits

Brave the perils of Antarctica, prepare for your afterlife on a tour of Ancient Egypt, design your own robot, and much more through these interactive exhibits from Boston's Museum of Science! View Activity

Teacher Use – Teaching a unit on Ancient Egypt Intermediate Example



Son-Line Activities & Classes

Fun With Mummies

This amazing interactive website will help you explore the ancient Egyptian culture. Click on one of the pictures to prepare a mummy for burial and learn all that had to be done to each body, to decipher images left on a tomb, to learn more about theartwork of ancient Egypt, or to see a timeline of ancient Egypt.

View Activity
Teacher Use – Teaching a unit on Arctic Animals Primary Example

Donzulli

Dashboard Te	each My Stu		← → C ☆ . https		DIEGO ZOO RPLANTS MEMBERSHIP OUR I	
Lessons Search		: Polar Bear Plung		SH	POLAR BEAR CAM	
arctic animals Grade & Ab PreK K-2 C	bea face invo	np into the world of polar b rs through videos, read fac e of global warming, watch olved in conservation! n Diego Zoo: Polar Be	ots, learn a polar bear			
3-5 6-9 10-12 Interest Are Athletics	Interest Areas Science Technology Social Action Video/Photography	Learning Styles Independent Study Programmed Instruction Simulation Technology	Expression Styles Audio-Visual/Display Oral Service Technological Written	Grades/ Levels PreK K-2 Low K-2 Med K-2 High 3-5 Low 3-5 Med 3-5 High 6-9 Low 6-9 Med 6-9 High		

Teacher Use – Teaching a unit on Global Warming **High School**

Kenzuilile	earning	
Dashboard	Teach	My Stu

Search

Search by Sta

Interest Areas

Social Action

History & Social Studies Group Work

Science

A NATIONAL CENTERS FOR ENVIRONMENTAL INFORMATION Formerly the National Climatic Data Center (NCDC) ... more about NCEI » Q Home Climate Information Data Access Customer Support Contact About Search Home > Data Access > Paleoclimatology Data A Paleo Perspective on Global Warming Δ NOTICE: There may be delays in processing of certain orders. We apologize for this inconvenience Quick Links Paleoclimatology Data and-Based Station The last decade of the 20th Century was the wa Paleoclimatology data are derived from natural NOAA Paleoclimatolog atellite sources such as tree rings, ice cores, corals, and ocean instrumental temperature record, starting in the adar and lake sediments. These proxy climate data extend years rank among the 15 warmest and include th the archive of weather and climate information Nodel hundreds to millions of years. The data include record, which makes these high temperatures up Veather Balloon geophysical or biological measurement time series But, what about in the context of past centuries and some reconstructed climate variables such as Marine / Ocean temperature and precipitation. are modern temperatures compared to those of aleoclimatology Datasets the reconstruction of past climate that we can tr NCEI provides the paleoclimatology data and information scientists need to understand natural Search of this warming. Take a look at the history and so climate variability and future climate change. We also Products operate the World Data Service for Paleoclimatology, and the data of temperature change, and decide Perspectives which archives and distributes data contributed by atology data are derived from a wide variety (scientists around the world. Contributing Data

A Paleo Perspective on Global Warmin

Learning Styles

Independent Study

Discussion

Lecture

Peer Tutoring Programmed Instruction

Education and Outreach Expression Styles About the Program Audio-Visual/Displa evere Weather Oral lended & Global Technological

Written

PaST Thesaurus



natural sources such as tree rings, ice cores, corals, and ocean and lake sediments.

-012

Lessons

Search Reso

global warmin

→ Grade & Ab

PreK

─ K-2

3-5

6-9

🗸 10-12

Interest Are

Search As St

Athletics

The wisdom of the wise and the experience of the ages are perpetuated by quotations.

Favorite Quote of All Quotahalics

Benjamin Disraeli

My favorite quote from my FAVORITE QUOTE LIST...

Example is the school of mankind, and they will Learn at no other.

Edmund Burks Statesman and Philosopher



COURTESY DAN ANDERSON

Students measured the height and weight of 10 regular Oreos, 10 Double Stuf Oreos, 10 Mega Stuf Oreos and five wafers.

Math and Science Using Kite Design







After working out math problems and designing patterns from paper, students put scissors, tape, and hope into creating colorful kites. FIND Kiterelated lessons at:

html#ch0hT6qYtpOgv6mB.99

Students are enrolled in a Learning Enrichment and Acceleration Program (LEAP). As the student-made kites climbed higher and higher, it was time for more math. Students paced off distance; calculations were made, revealing that kites reached a height of 193.16 feet, based on specific measurements students had practiced before heading out to the playground.





"What's It Good for?

Infusion in Algebra



April Blume, left, and Elora Klepinger discuss line equations and writing systems of equations as part of their Super Bowl project in Jessica Breedlove's class at Taylor High School. KT photo | Kelly Lafferty (2 of 3)

Algebra Goes to The Super Bowl

hmmm... and yet another day has passed and I did not use Algebra once...very interesting.

Barbie Dolls Teach Algebra

Algebra 1 students use formulas and calculations to prevent Bungeejumping Barbies from cracking their heads in a plunge off the top of the football stadium.

The freshman worked on the data derived from attaching rubber bands to the feet of each Barbie and recording how far she would fall with the addition of each additional rubber band.





"What's It Good for? Infusion in Algebra







n = 15

🗏 Student Guess

y =

Computer Fit

- r = 0.99
- y = 24.8x + 45.37

Remove Points
Move Points









Eight times eight went out the door Came back in married as sixty-four

Nine times three went to heaven Came back to earth as twenty-seven

Limericks

There once was a number named eight Who thought he was something quite great But when divided by four he was two And his new size made him feel blue.

Cinquain

Numbers Added together Can be multiplied Saves time Faster



"What's It Good for?

Infusion in Math

Making Geometry Meaningful...





"What's It

The 9-foot-tall pyramid they built out of 1,024 smaller paper pyramids was based on the Sierpinski triangle fractal, a mathematical design in which each large piece is made of matching smaller pieces. Submitted to Guinness World Records.

Developing Math Skills Through a Fantasy Baseball Program

In the Fantasy Baseball program, students receive fictional baseball cards and analyze the players' statistics to draft and trade while building their own teams. A "Player Wheel," a geometric representation of the player's strengths and weaknesses, is created and used to play against other students' teams. A regularseason schedule is set for the class, usually ending with a World Series game to decide the classroom champion.



Read more: <u>http://www.post-gazette.com/stories/sports/pirates/math-game-adds-up-to-win-640567/#ixzz1yAFV9459</u>



Renzulli Project Grade 4

Our Lady of Trust Catholic Academy

Q +1 < 0

none-sequenty 70

Published June 10, 2012 at 1:51 pm Comments Off

The fourth grade students at OLT did their first project on the website Renzulli Learning.

Here are a few pictures of the students that chose to dress up for their project.



A fabulous Ms. Whitney Houston, represented by Kayla-grace.

History Comes Alive Our Lady of Trust Catholic Academy Brooklyn, NY



"What's It Good for?

Infusion in History



Aryel gave an excellent speech dressed as Michael Jackson.



Roberlie was dressed as Rosa Parks.



Chris gave an excellent speech as Dr. Martin Luther King Jr.

All research on the lives of these persons was done at the RLS site.



Kenyon portraying Guion Bluford The First African American Astronaut

Night of The Notables

Jackie Robinson Ada Lovelace **Nelson Mandela Bill Gates Steve Jobs** Ella Fitzgerald Ludwig van Beethoven **Michelle Obama Amelia Earhart Rosa Parks Roberto Clemente Benjamin Franklin** Sally Ride Laura Bush **Guion Bluford** Willma Rudolph **Tony Hawk Helen Keller** Anne Frank Marian Anderson Maya Angelou

Harry Houdini **Amelia Earhart Meriwether Louis Princess Diana LeBron James Gabrielle Douglas** Mae C. Jemison **Helen Frankenthaler** Malcolm X Sacagawea Louis William Tomlinson **Coretta Scott King** Anne Frank Martin Luther King, Jr. **Helen Keller Roberto Clemente** Muhammad Ali Annie Sullivan **Albert Einstein** Mary Tudor

THE MUSEUM OF ONLINE MUSEUMS



THE MUSEUM OF ONLINE MUSEUMS

MoOM

Currently | Previously | Benefactors | Mission

Welcome to the MoOM. The galleries are updated continuously, and new exhibitions are hung each quarter.

The Curators

Introducing a film from Coudal Partners and The Board of Directors of the Museum of Online Museums. *The Curators* is a three-part documentary, hosted by Collections Director Kevin Guilfoile, that focuses on the collectors and the collected.

The Museum Campus

- Museum of Mathematics †
- Computer History Museum †
- National Postal Museum †
- The Met's Timeline of Art History †
- National Gallery of Art †
- Rijksmuseum †
- Russian Museums List †
- Museum of Design Zurich †
- Smithsonian Art Museum Weblog
- Museum of the History of Science at Oxford
- Virtual Museum of Canada
- United States Holocaust Memorial Museum
- SFMOMA
- American Package Museum
- The Bauhaus Archive
- Los Angeles County Museum of Art
- Musée d'Orsay
- The Museum of Useful Things
- Eisner Museum of Advertising and Design
- Rhode Island School of Design
- MoMA
- The Art Institute of Chicago



Student Mayank Mardia, 11, talks to Thuy Phan and Vasiliki Tsongas, front to back, about the Hiler youth movement at the Tol ance Museum at Metairie Academy for Advanced Studies in Old Metairie on Thursday. Students created the series of exhibit hands on activities and oral histories based on the lessons of their teacher Wendy Foy.

Students talk up tolerance

Main Room





Teaching Technology Skills Through Creative Book Reports







Infusion in AP Physics

The Weather Balloon Project - Failure is Not an Option

High-school physics teacher Raymond Cirmo describes how he challenged his AP Physics B class to apply everything they learned to launching a video camera as high above the earth's surface as possible and recording the journey there and back.



"What's It Good for?

Infusion in Trigonometry







Exploring the Efficacy of Elementary Engineering

http://www.trianglecoalition.org/wp-content/uploads/2011/03/Exploring-the-Efficacy-of-Engineering-is-Elementary.pdf

"What's It Good for?

Infusion in Geometry



Hawthorne Brook Middle School fifth-graders Kaleb Naticchioni and Morgan Rosseau show off the bridges that they built in their science class. SUN /CHELSEA FEINSTEIN



"What's It Good for?

Infusion in Reading



Sixth graders get cozy with their books in their PJs.



"What's It Good for?

Infusion in Reading



Eating his home made green eggs and ham.





Christa Turner, right, and the rest of her fourth-grade classmates at the Hawlemont School in Charlemont are bottle-feeding and raising an orphaned lamb that they have named Shaggy. (Recorder/Paul Franz) Purchase photo reprints »

Fourth grade students apply everything they are learning in math to the costs and measurement of factors (weight, grams of food, etc.) to raising a lamb



Always in the area of the student's Interest

Letter from a former student...

7th Grade Science Teacher At Dow Avenue School, Ocean Township, NJ

Stephanie Battjer

Sent: Thursday, June 4, 2015 at 7:14 AM

To: joseph.renzulli@uconn.edu

You forwarded this message on 6/4/15, 2:47 PM.

Dear Dr. Renzulli,

I ran across your name and work recently and I believe you were my 7th grade science teacher at Dow Avenue School. You were always one of my favorite teachers! I remember your enthusiasm as a relatively young teacher, and that you always made class fun and interesting.

I am impressed with your work and your achievements. I just wanted to say hello to great teacher and scholar! Hope all is well with you!



Nicole Waicunas, SEM Outreach Coordinator









You can contact me to learn more about the Schoolwide Enrichment Model – including infusion – by contacting me at: <u>nicole.waicunas@uconn.edu</u>

To find out more on SEM Outreach, go to our Schoolwide Enrichment Model Outreach Services Page at: <u>SEM-Consulting.pdf</u> (uconn.edu)



For Information About PROFRSSIONAL DEVELOP Please contact:

Nicole Waicunas Renzulli Center Coordinator of Professional Development nicole.waicunas@uconn.edu

You can also also join my LinkedIn account by going to:

https://www.linkedin.com/in/joseph-s-renzulli-861b5b22/



"Stop worrying about what can go wrong, and get excited about what can go right." Author Unknown

"A little more persistence, a little more effort, and what seemed hopeless failure may turn to glorious success."

Watty Piper, Author

The Little Engine That Could

And most of all, never give up on your dreams...



