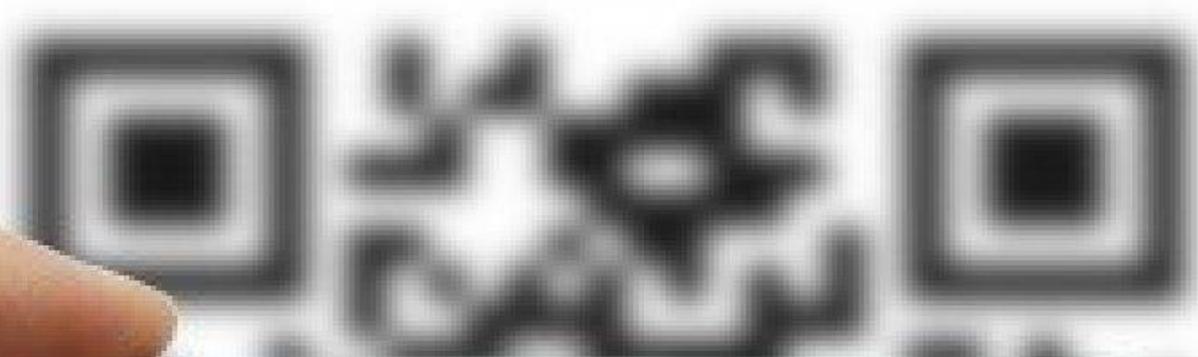


# SCAN TO LEARN: QR CODES AND AUGMENTED REALITY IN THE CLASSROOM

Edmodo Code:  
**CS6053**



Scan Me!

[karenogen.weebly.com](http://karenogen.weebly.com)

Karen Ogen  
FETC 2014

# Get ready:

- Download a QR reader:



RedLaser



i-nigma



QR Reader



QR Droid

- Download the Aurasma app:



# Why scan to learn?

- Quick connection to the resources you have chosen for your students.
- Help students become independent learners
- Provide immediate feedback and improve student achievement
- Fun and engaging!



# Compare:

## QR Codes

## AR

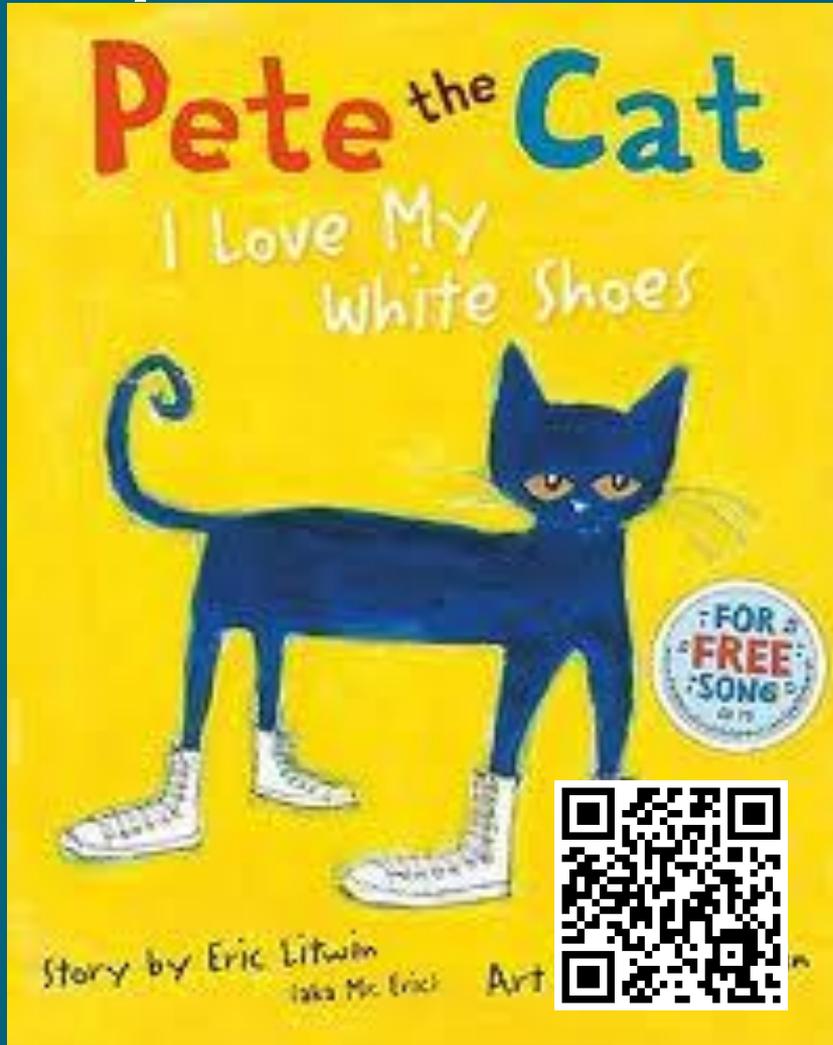
## Virtual Reality

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- A code is scanned by a smart device.
  - The code can link the user to web sites, text, or multimedia.
- A special AR marker, everyday item, or image can be used as a trigger.
  - AR can be used with smart devices and with computers equipped with digital cameras.
  - It superimposes 3-D or multimedia content into the real world.
- User is totally immersed in the virtual environment.
  - Some senses may be under control of the virtual system.

# A Look at QR Codes

# Improve Literacy:

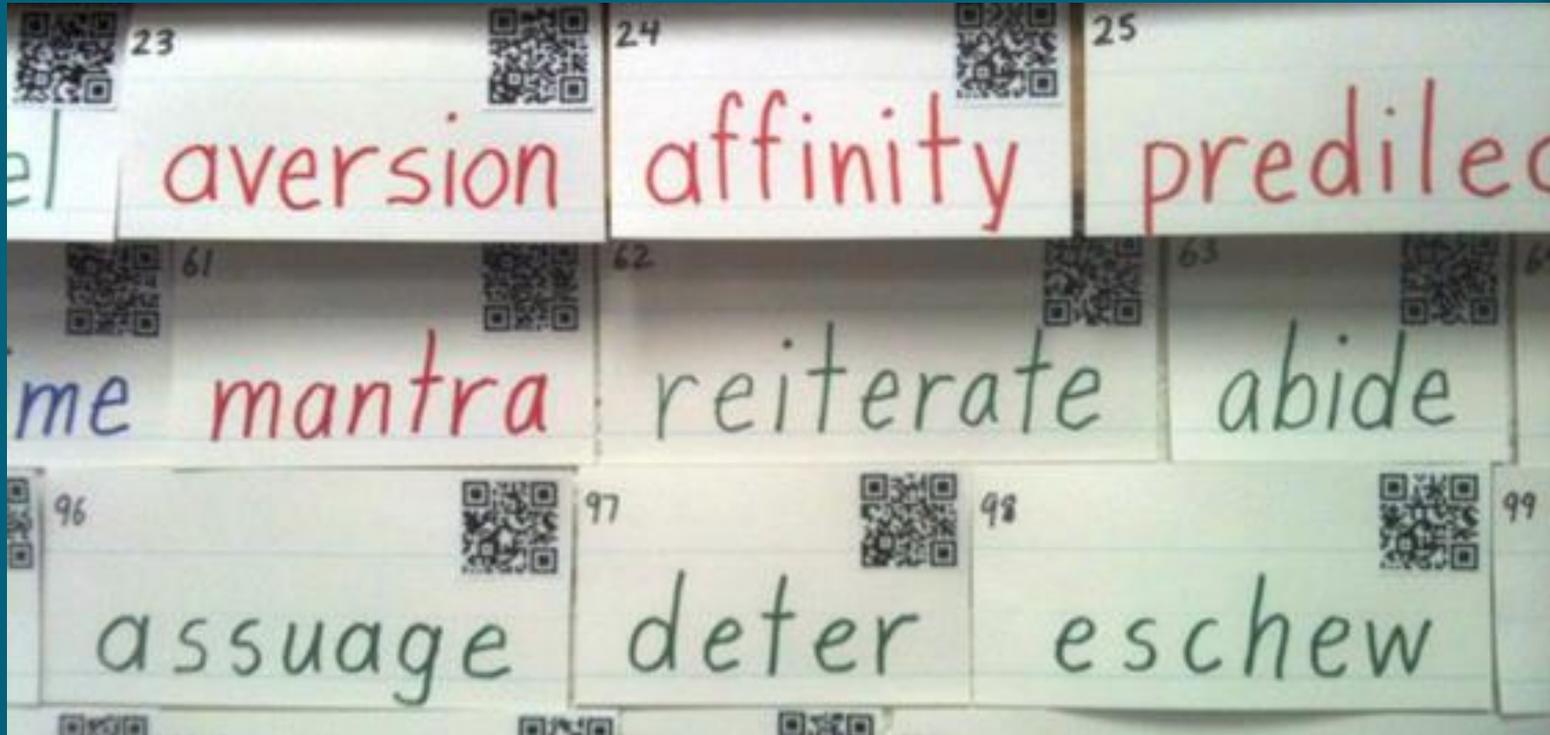


Put a QR code on a book to link to a video of the book, an online version of the book, or an audio reading of the book.

Non-readers or emerging readers can then read-along.

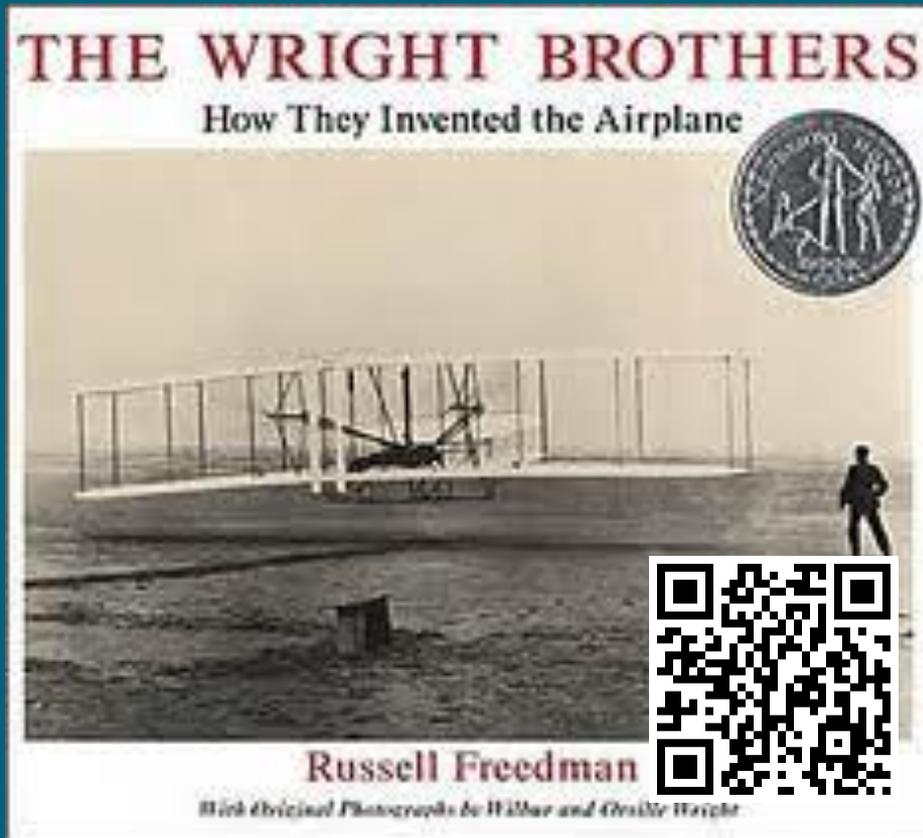
\*NOTE: Most of the QR codes in this presentation link to actual resources. Try them!

# Improve Vocabulary:



Students scan QR codes, words, or images to learn more about vocabulary and concepts.

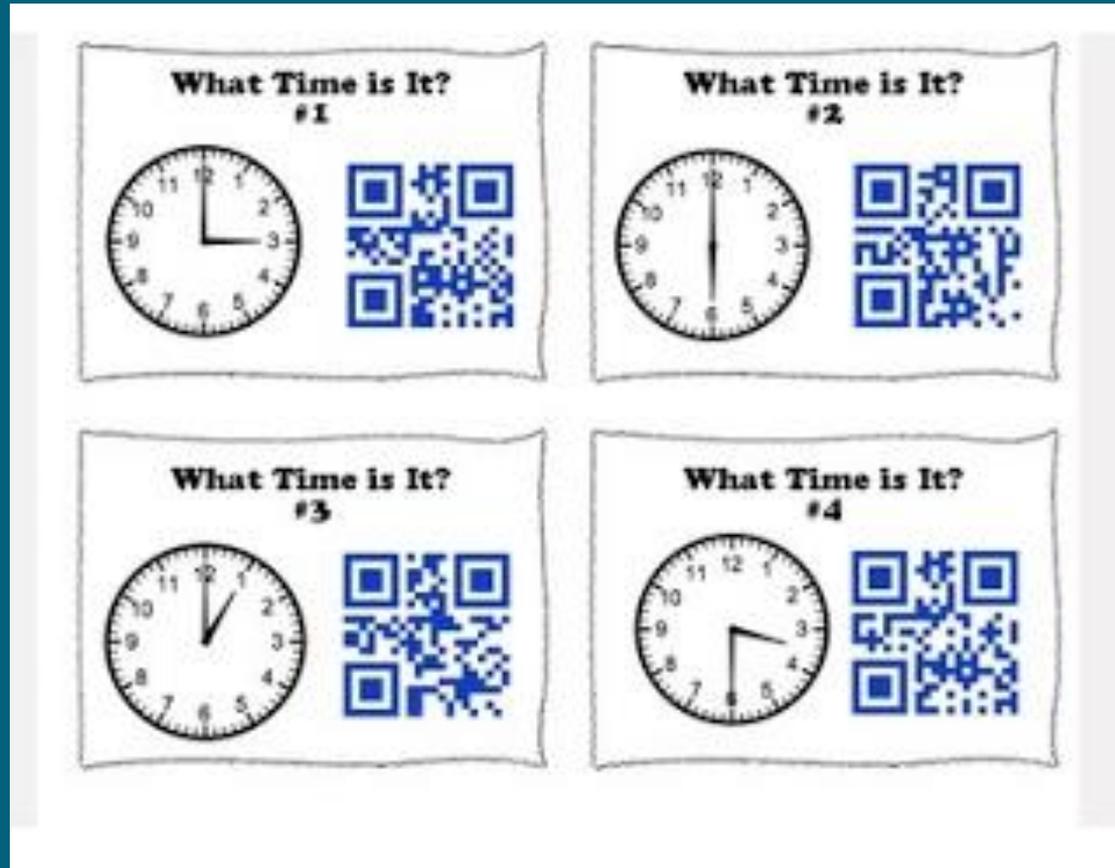
# Link to More Resources:



Put a QR code on non-fiction books so that students can learn more about a topic through audio files, video files, or web pages about the topic.



# Self-Check Work:



Add codes to worksheets or task cards so students can self-check their work and become more independent learners.

# Connect to Sites Easily:



Quickly and easily connect students directly to the websites you want them to access. No concern about them typing the URL incorrectly or wasted instructional time getting them where they need to be.

# Math Assistance:

Round to nearest whole number or dollar.

Ex. 5)  $94.62 = 95$     Ex. 6)  $\$21.45 = \$21$     Ex. 7)  $\$199.96 = \$150$

Find Sales Tax

Ex. 8) Shirt = \$19.99    Ex. 9) Pants \$21.99

Sales tax 14% = .14    Sales Tax 12% = .12

$$\begin{array}{r} \$19.99 \\ \times .14 \\ \hline 7996 \\ 19990 \\ \hline 2.7986 \end{array}$$
$$\begin{array}{r} \$21.99 \\ \times .12 \\ \hline 4398 \\ 21990 \\ \hline 2.6388 = 2.64 = \$2.64 \end{array}$$


\* when finding sales tax, we convert the tax percent into a decimal and multiply it by the other amount. Then round to the nearest cent.

-3 Lesson Practice

a.  $\$6.66 = \$6.00$     b.  $\$0.9635 = \$0.96$     c.  $\$0.0333 = \$0.03$

d.  $0.13 = 0.12$     e.  $12.345 = 12$     f.  $2.375 = 2.4$

g.  $16.75 = 17$     h.  $1.875 = 2$     i.  $\$73.00$

j.  $\begin{array}{r} 15 \\ 43.70 \\ \times 6 \\ \hline 262.20 \end{array}$     k. # You round 2.75 to 3% and then you must multiply.

Provide QR codes on a sticker or bookmark that students can use to access a video or tutorial that will walk students how to solve difficult math problems they will have for homework. (Videos are great if they are teacher created!)

# Classroom Rewards:



Provide an element of surprise by allowing students to choose a QR code as a reward. The student then scans it to reveal their reward.

# Field Trip Fun:



Going on a field trip? Find out if the location has QR codes. If not, create a QR handout that students can scan as they view certain exhibits. Make their field trip experience more interactive and informative!

# Enhance Student Work:



Add QR codes to student work that is hanging in the hallway or going home to parents. The QR code can link to an audio recording of the student reading their story or writing.

# Create a QR Code:



<https://www.unitaglive.com/qrcode>

## 1 QR Code type

Web link	Text	Business card
Send an email	Geolocation	Send an SMS
Phone	Calendar	Wireless network

Choose the format of your QR Code

## Your QR Code



Every QR Code isn't necessarily readable.  
Test it before using it.

[DOWNLOAD THE QR CODE](#)

# A Look at Augmented Reality

# Learn About The Body:

**learnAR**

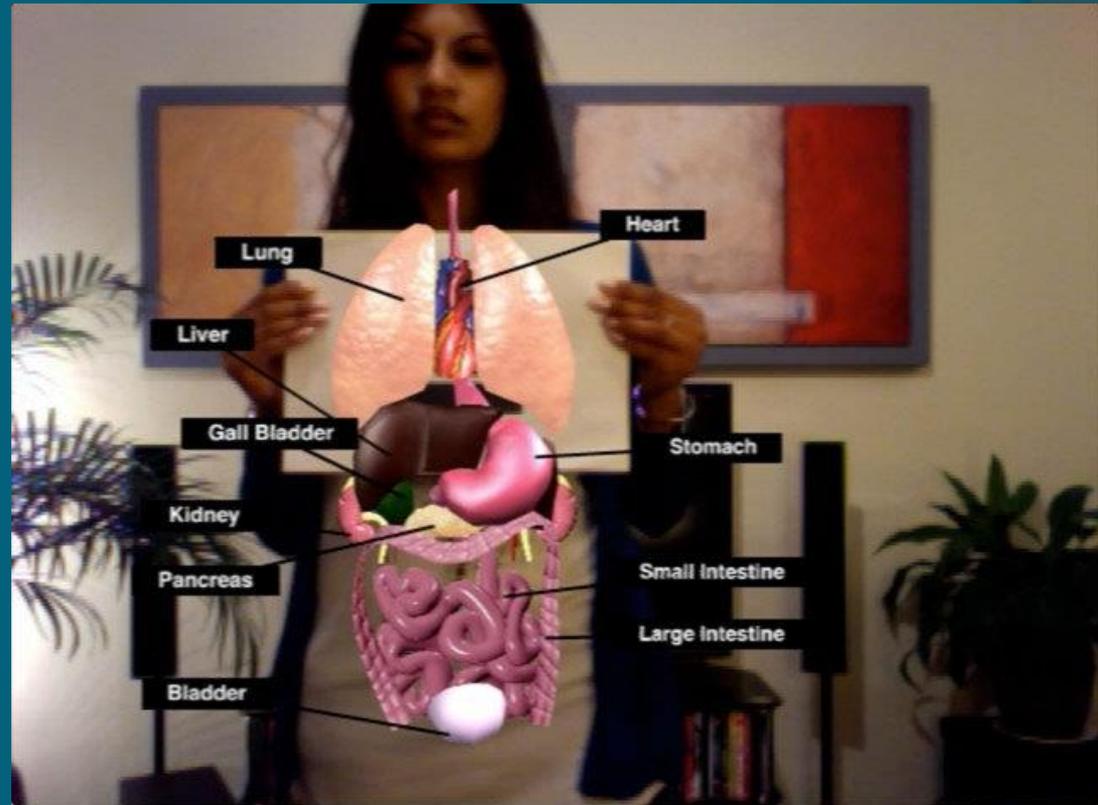
Educational AR modules that work with your webcam.

Biology: Organs is free to try.

[Print the marker and try it out here!](#)

[www.learnar.org](http://www.learnar.org)

Works with a computer webcam.



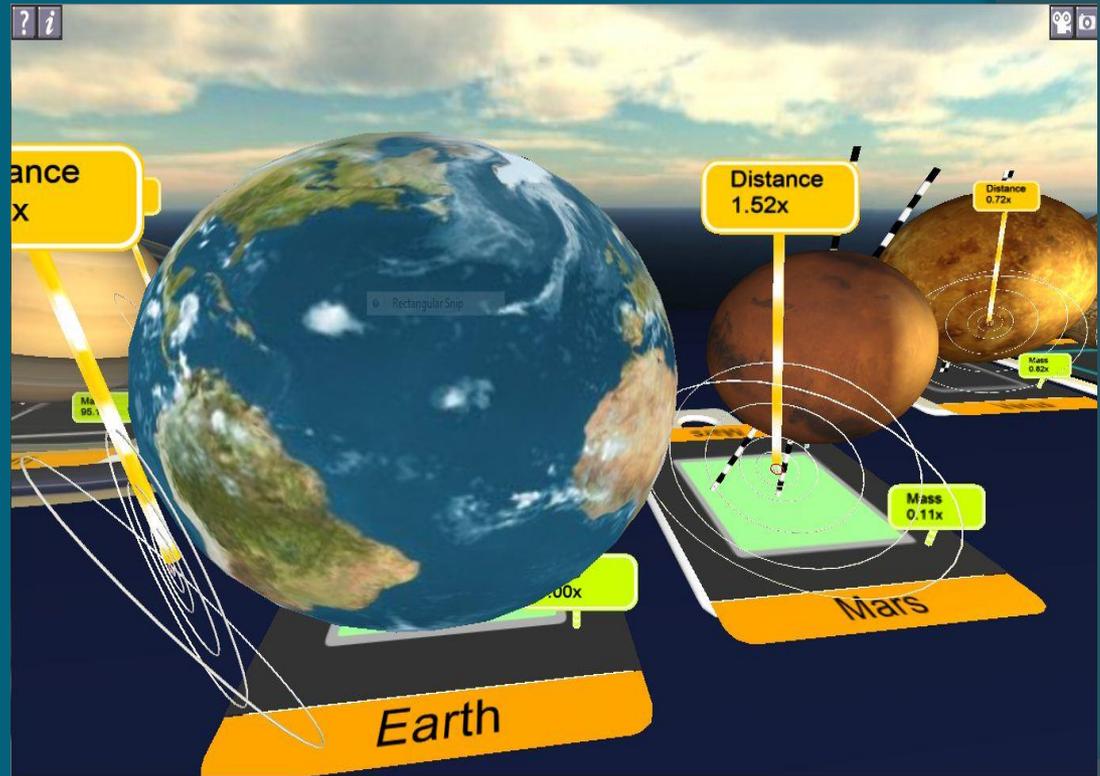
# Compare Planets:



AR paddles and modules you can use in your classroom.

Download the software [here](#), sign up, and try some modules for free.

Works with a computer webcam.



# Learn Letters & Sounds:



## AR Flashcards

Augmented Reality flashcards to teach the alphabet!

iPad App



# Explore the Planets:



[Amazing Space Journey](#)

Explore the planets.

iPad App



# Investigate Dinosaurs:



## AR Dinopark

Watch dinosaurs in action as they roam your classroom.

iPad App



# See Your Heart:



[HeartCam](#)

See your “virtual”  
beating heart.



# Practice Addition:



## Fetch! Lunch Rush

A primary math game that uses AR cards to answer the questions.

iPad App



# Translate Languages:



## Word Lens

Instantly translates written words.

Costs \$4.99 per language pack.

iPad App



# Create Your Own AR:



[Aurasma](https://www.aurasma.com)

[studio.aurasma.com](https://studio.aurasma.com)

The easiest way to create your own AR for the classroom!

App for your mobile device.

Some vocabulary you need to know:

**Overlay** - the action, what happens when your trigger object is scanned.

**Trigger image** - what you will scan to make the action happen.

**Aura** – In Aurasma, the combination of your trigger image and overlay.

**Channel** – To share your auras with others, you must save them to a channel.

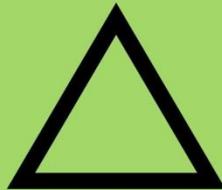
**Follow** – To use others' trigger images you must follow them in Aurasma.

# Aurasma in the Classroom:

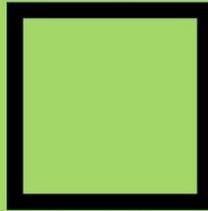


1. Follow Karen Ogen on Aurasma (to use triggers that you did not create, you need to follow the channel of the developer).
2. Scan the image using the Aurasma app to make the action happen!

# Aurasma Overlay:



TRIANGLE



QUADRILATERAL



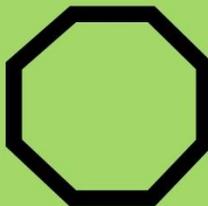
PENTAGON



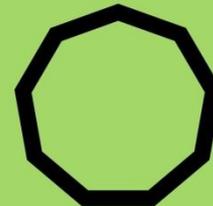
HEXAGON



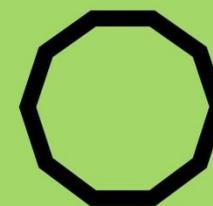
HEPTAGON



OCTAGON



NONAGON



DECAGON

**POLYGON**

# Aurasma Trigger:



# Polygon

# Sources:

Title page: Phone and QR Image: [http://www.bwscan.com/  
http://www.acu.edu/news/2011/110407-qr-code.html](http://www.bwscan.com/http://www.acu.edu/news/2011/110407-qr-code.html)

All icons are from iTunes

All screenshots are from iTunes, their websites, or taken by Karen Ogen