



African Advanced Institute for Information
& Communications Technology

Parent run Science Club
Nooitgedacht 88 Primary School

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December, 2006



Major Objective

...facilitate national economic and social improvement through human capital development...



Nooitgedacht 88 Primary School

λ Founded 1905



Nooitgedacht 88 Primary School

- λ Founded 1905
- λ 30 kms north of Joburg



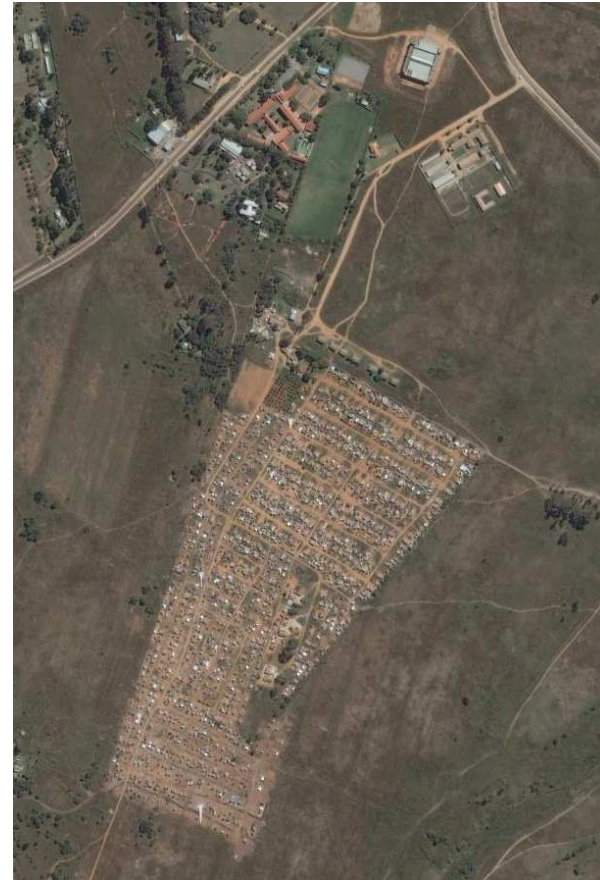
Nooitgedacht 88 Primary School

- λ Founded 1905
- λ 30 kms north of Joburg
- λ English/Afrikaans parallel medium



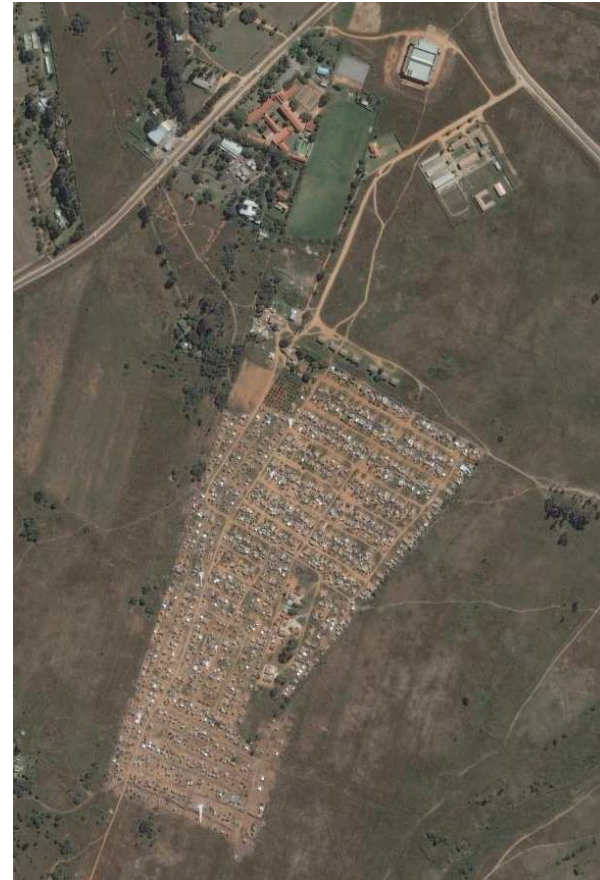
Nooitgedacht 88 Primary School

λ 97.5% ethnic Africans



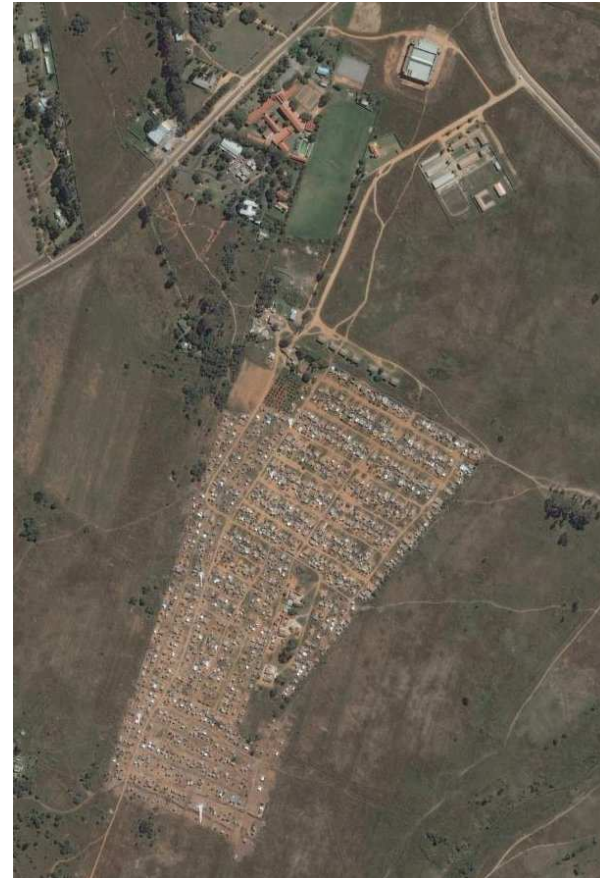
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- λ 97.5% ethnic Africans
- λ From informal settlements



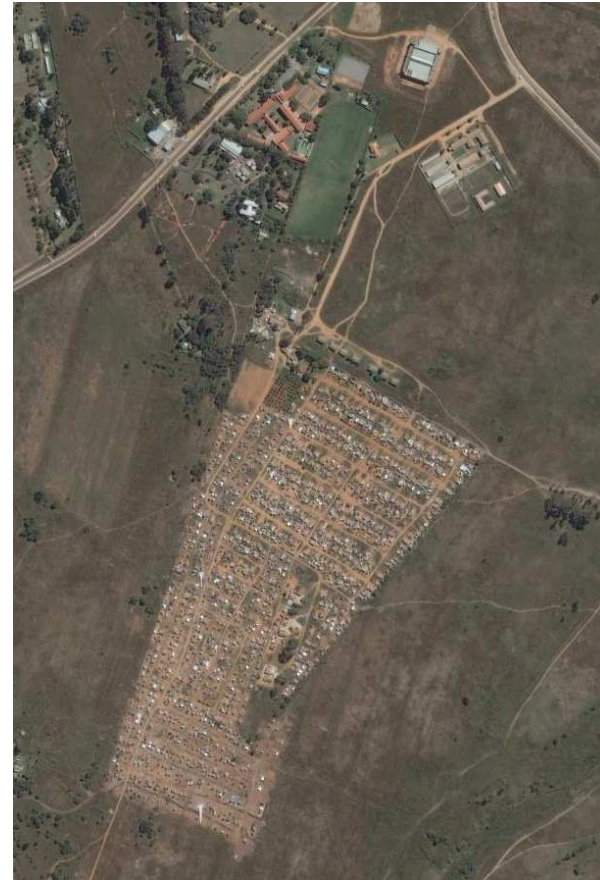
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- λ 97.5% ethnic Africans
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- λ Walk or come by taxi



Nooitgedacht 88 Primary School

- λ 97.5% ethnic Africans
- λ From informal settlements
- λ Walk or come by taxi
- λ 2007 “non-paying”
English medium
school



The problem

First term, 2006, Grade 6 Natural Science
class average was 38%



If you aren't part of the
solution, then you are part of
the problem.



Parent Run Science Club

λ Free of charge



Parent Run Science Club

- λ Free of charge
- λ Relaxed, non-disciplinarian environment



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- λ Shadow the Grade 6 science curriculum



Parent Run Science Club

- λ Free of charge
- λ Relaxed, non-disciplinarian environment
- λ Shadow the Grade 6 science curriculum
- λ Lots of fun



Free of charge

- λ No cost to the learners
- λ Kept costs below R50.00 per week total (US\$7.50)
- λ Used “second hand junk”
- λ Film canisters
- λ Disposable flash cameras
- λ Cardboard boxes
- λ Plastic cool drink bottle



Relaxed, non-disciplinarian environment

- λ Outside
- λ Sat on the grass
- λ No desks
- λ Noise could dissipate
- λ Learners could “wiggle”



Shadowed the Grade 6 Science Class

- λ Planets
- λ Astronomy
- λ Energy
- λ Electricity and electronics
- λ Structures
- λ Water
- λ Soil



Lots of Fun



Lots of Fun

λ “Eye popper” or “Attention Grabber”



Lots of Fun

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- λ “Steam release” active game



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- λ Build or make something



Lots of Fun

- λ “Eye popper” or “Attention Grabber”
- λ “Steam release” active game
- λ Music-Dance
- λ Board games
- λ Card games
- λ Build or make something
- λ Puzzle



“Eye Popper” and “Attention Getter”

λ Coke and Mentos



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“Eye Popper” and “Attention Getter”

- λ Coke and Mentos
- λ Potassium Permanganate and Glycerine



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“Steam Release” active games

- λ Relay races
- λ North-South-East-West
- λ Smugglers/Tag



“Steam Release” active games

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- λ North-South-East-West
- λ Smugglers/Tag



Music - songs

Twinkle, twinkle, little star,
Now I know just what you are.
You're a flaming nuclear mass,
Made of Hydrogen and Helium gas.
Twinkle, twinkle, little star,
Now I know just what you are.



Music – lipsync “rock” performance

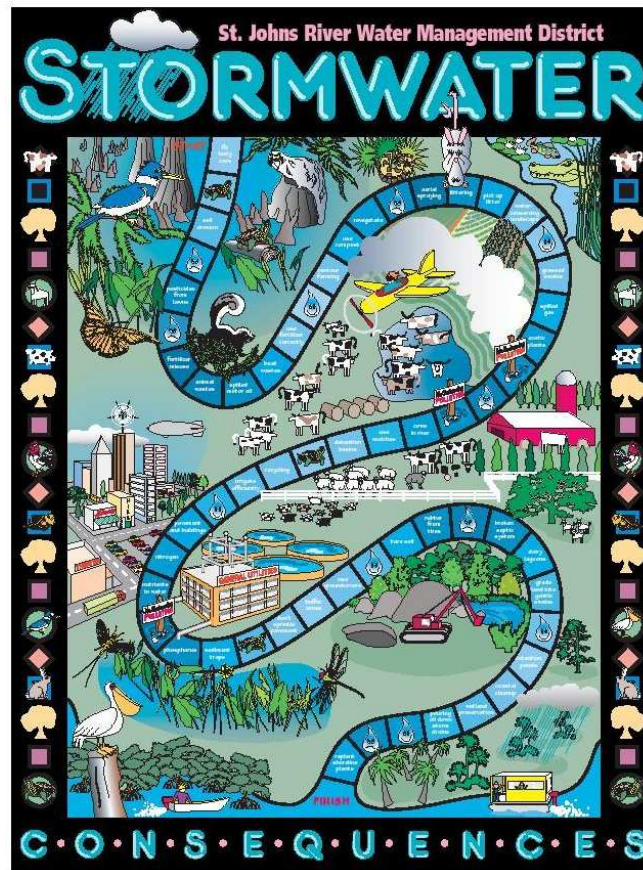
- λ “Sound travels in waves”
- λ Performed for the entire school at assembly



Board games - Energy

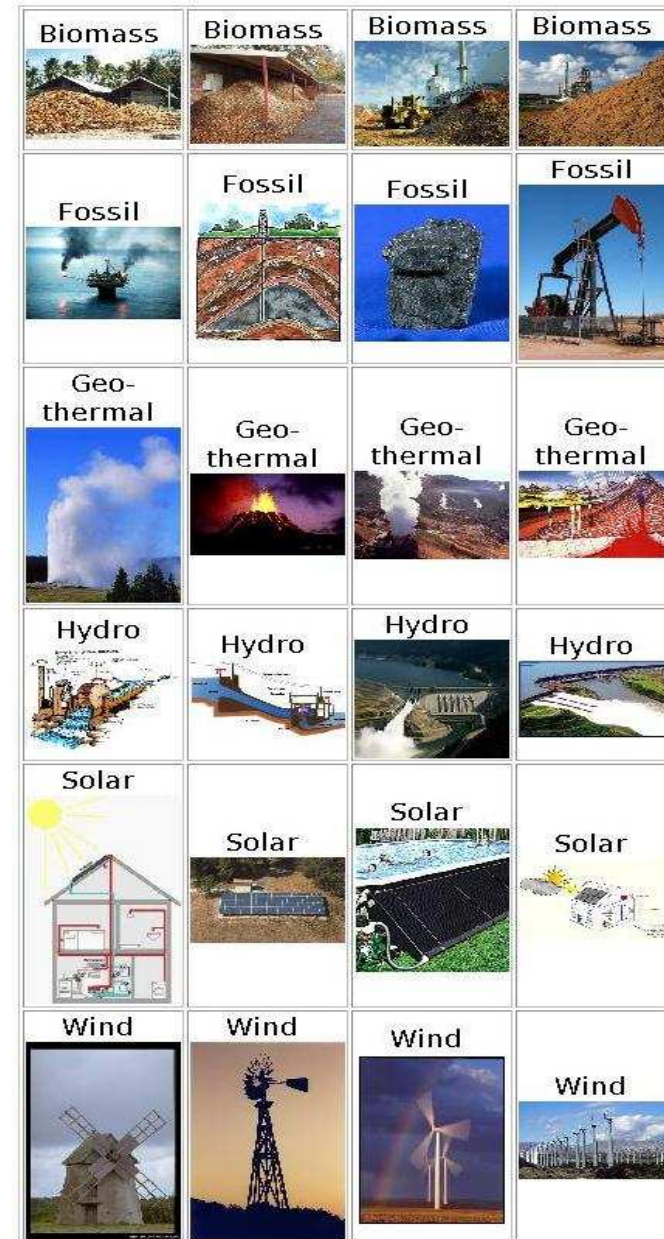


Board games – Storm water



Card games

- λ “Concentration” or “memory”
- λ “Go fish”
- λ “Kim's” games
- λ Rummy



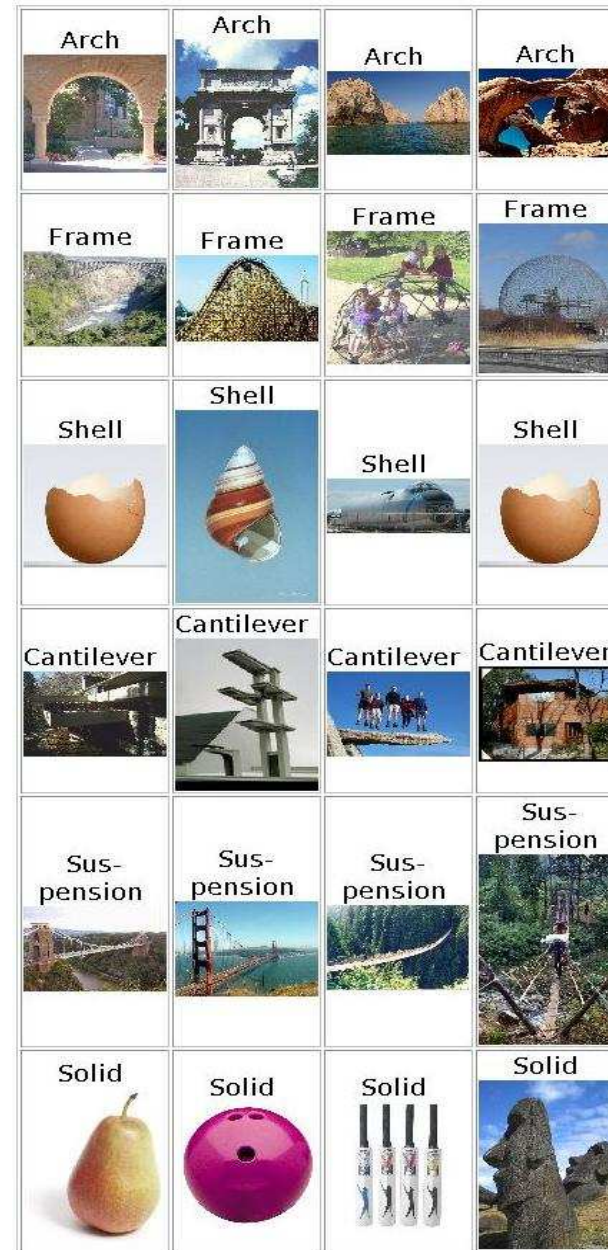
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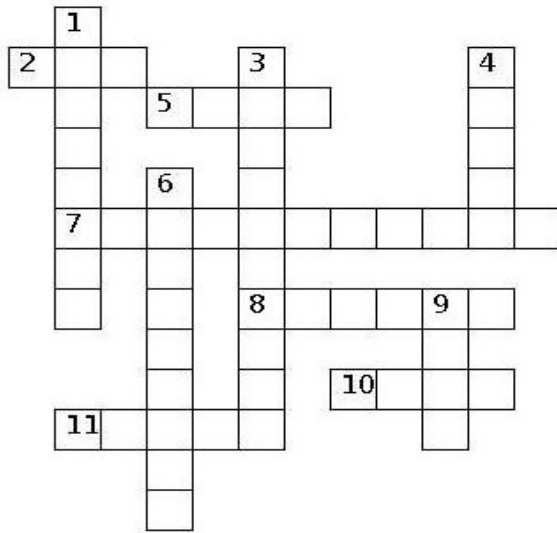
Make things – syphon

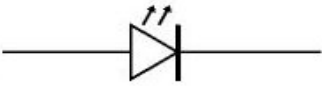

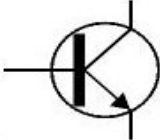
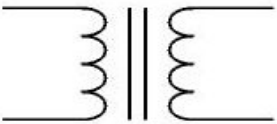




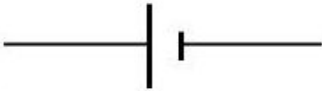



Make things – water filter



Puzzles



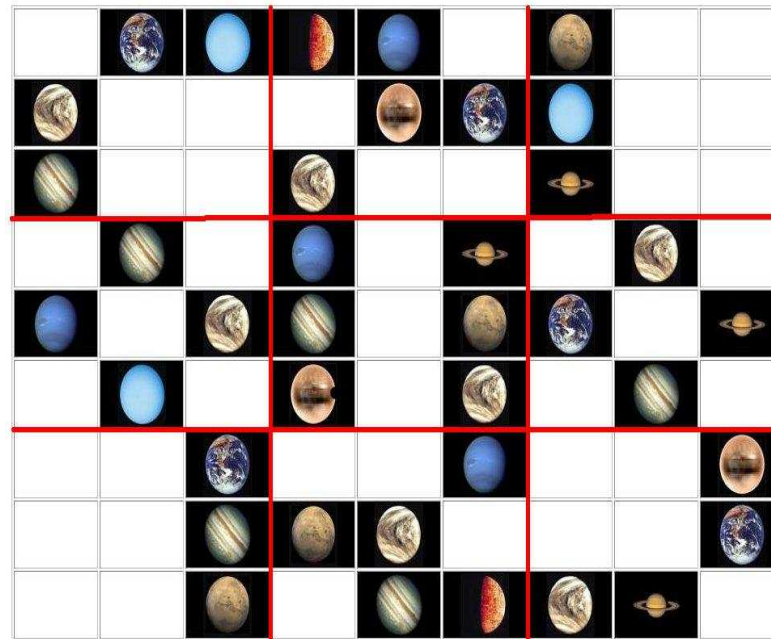
Across	Down
2. 	1. 
5. _____	3. 
7. 	4. 
8. 	6. 
10. 	9. 
11. 	



Puzzles



Planet Sudoku!



Feedback from learners

How do you feel today?



Show me if you enjoyed the lesson



Results

λ Class average rose from 38% to 52% in one term



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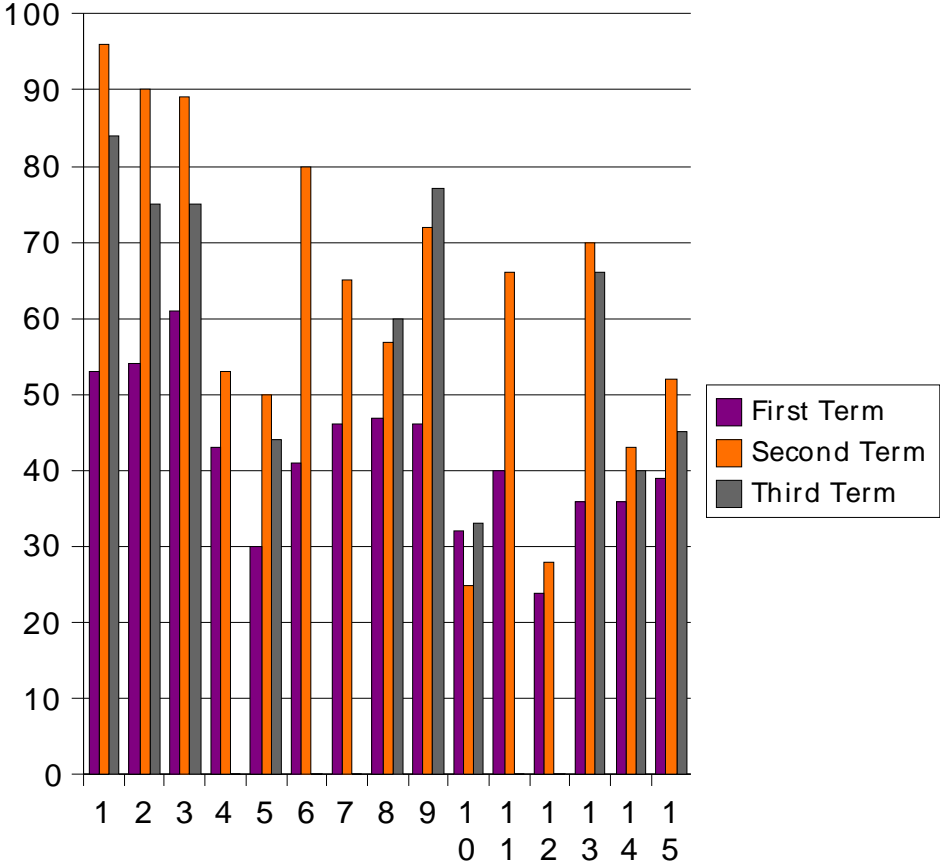
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- λ “The Grade 6 learners involved in the Science Club [are] already participating in the total discipline within their respective classes.” - Facilitator Natural Science
- λ “Student's overall attitude has improved in terms of preparation before tests and exams.” - Facilitator Natural Science



Learners Attending Science Club Regularly

- λ First term ave 42%
- λ Second term ave 63%
- λ Third term ave 60%



What next?

- λ Involve more parents
- λ “New” Grade 7s want to help next years Grade 6s
- λ Start a collaborative “group”
http://groups.yahoo.com/group/science_club_ideas



Summary

- λ Parents positively influence science marks
- λ Parents don't need a science education to help improve the science marks
- λ Low cost
- λ Learners will help make it sustainable



Thank you

- λ GoogleEarth aerial images of Nooitgedacht Primary
- λ Potassium Permanganate and glycerine images from Journal of Chemical Education website
- λ “Sound Travels in Waves” from <http://www.sciencejam.com>

