Mike Scott

Electrical & Electronics

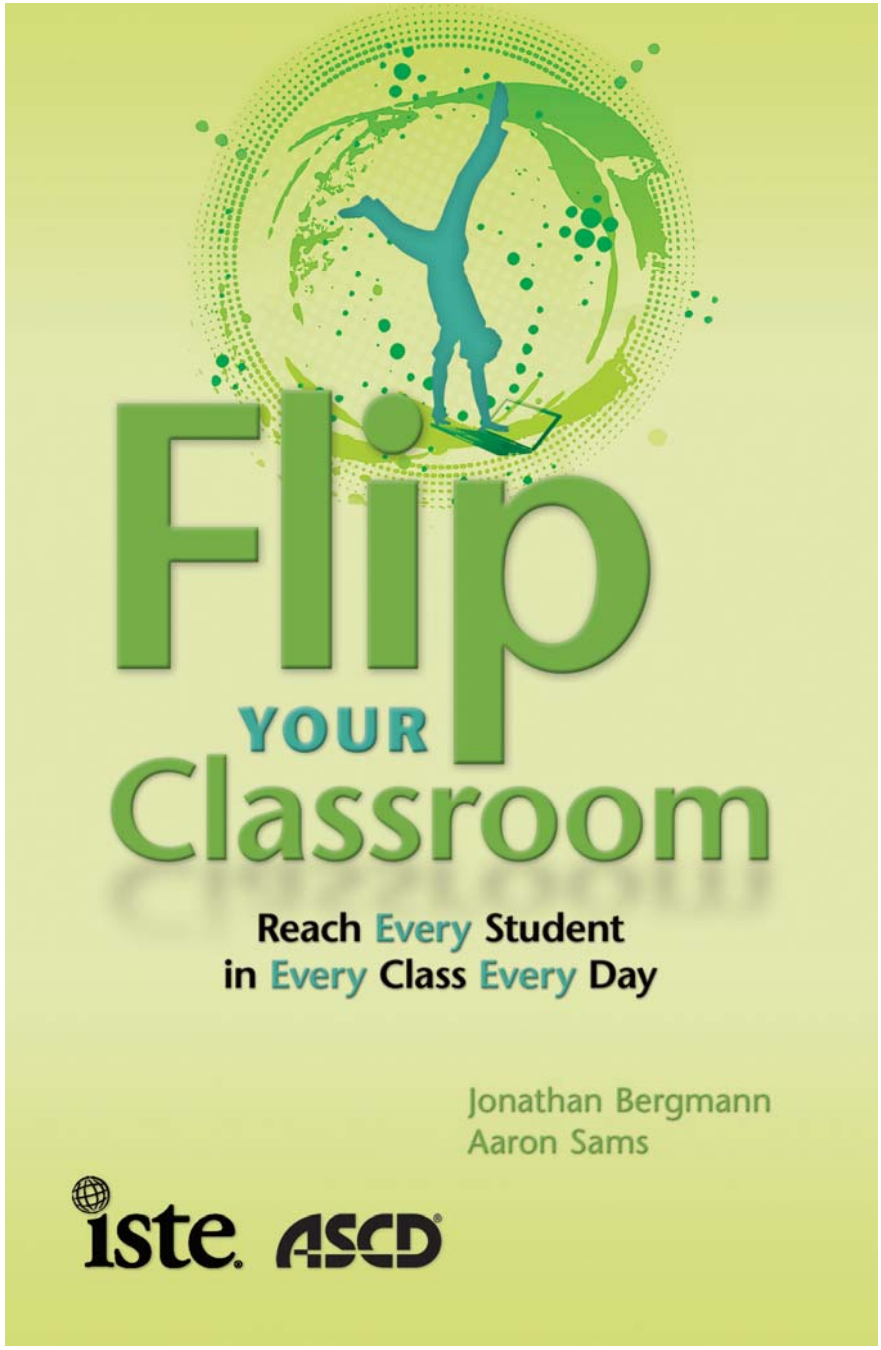
Tertiary Teaching Excellence Awards 2014

AKO AOTEAROA

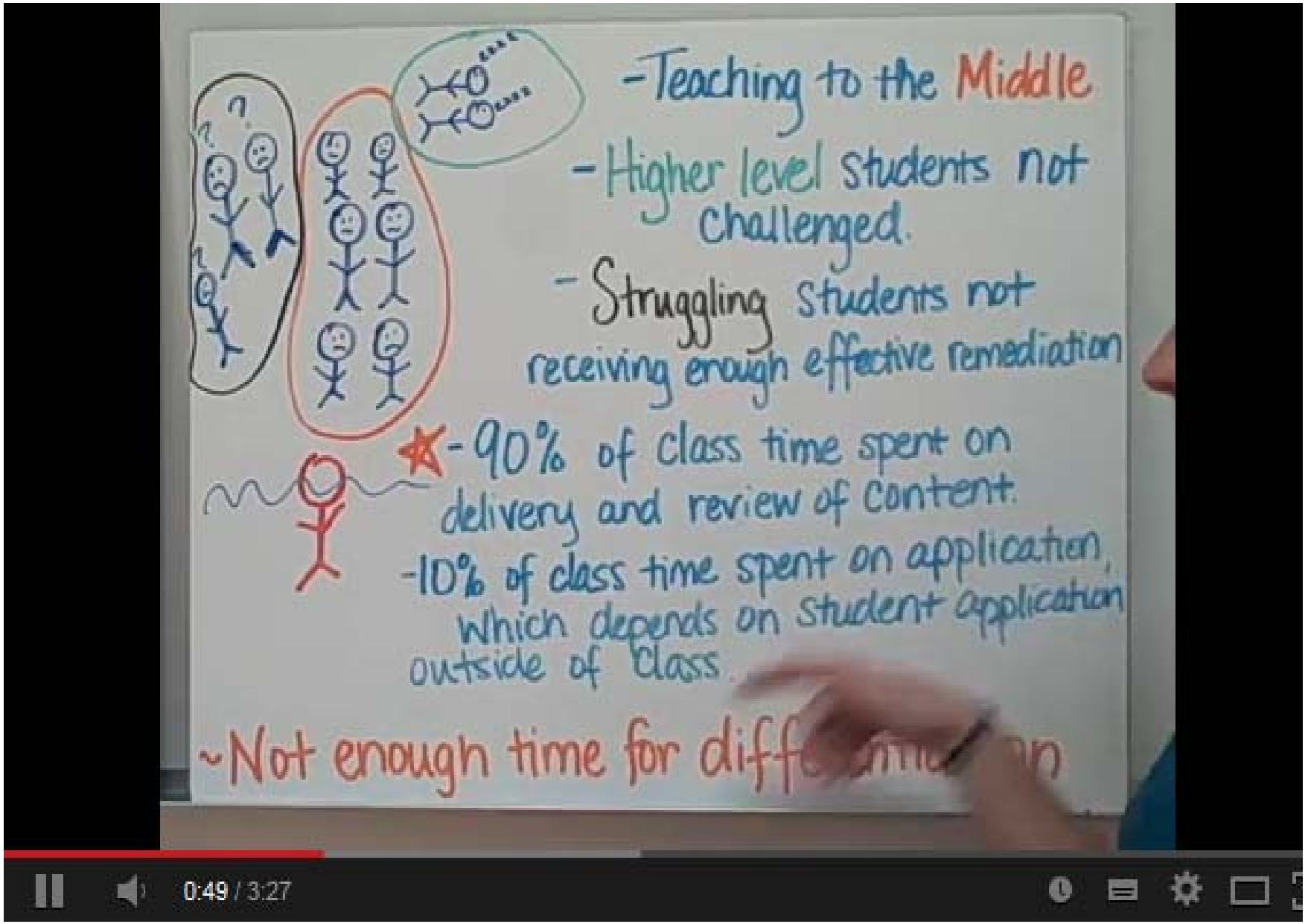
academy

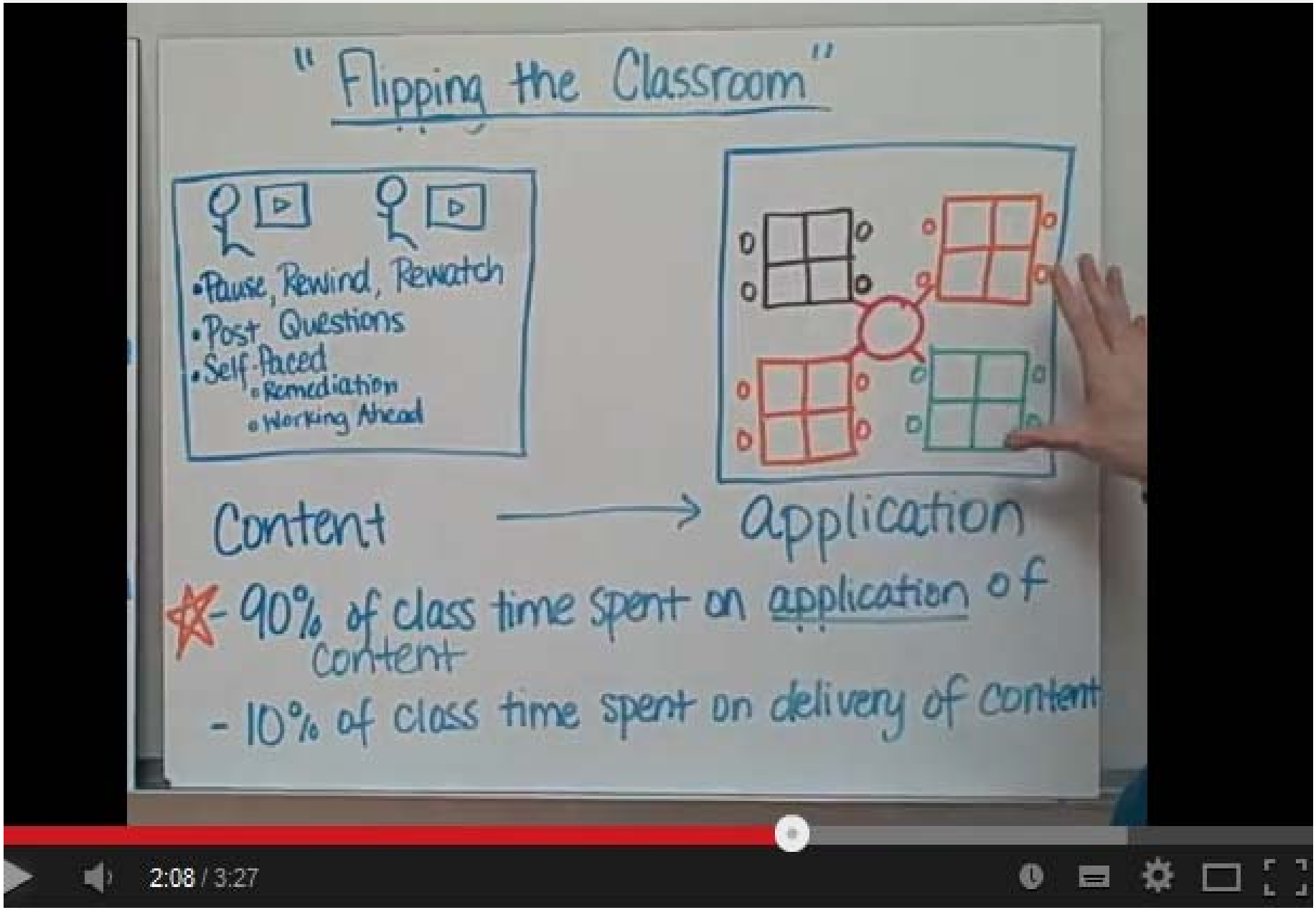
OF TERTIARY TEACHING EXCELLENCE


My Portfolio


Flip
YOUR
Classroom
Reach Every Student
in Every Class Every Day
Jonathan Bergmann
Aaron Sams
iste
ASCD

https://www.youtube.com/watch?v=9aGuLuipTwg


-Teaching to the Middle
-Higher level students not challenged.
-Struggling students not receiving enough effective remediation
-90% of class time spent on delivery and review of content.
-10% of class time spent on application, which depends on student application outside of class.
~Not enough time for
0:49 / 3:27


"Flipping the Classroom"
•Pause, Rewind, Rewatch
•Post Questions
•Self-Paced
◦Remediation
◦Working Ahead
Content
application
- 90% of class time spent on application of content
- 10% of class time spent on delivery of content
2:08 / 3:27

Upload | ElectroVids

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ElectroVids

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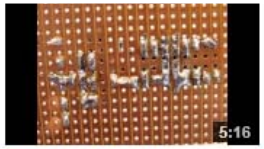
Soldering Part II
39 views 1 week ago

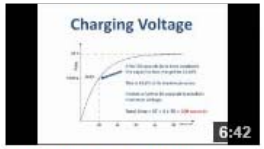
Soldering 2
6 views 1 week ago



Intro to Soldering
51 views 1 week ago

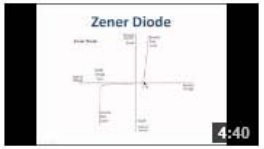
test
3 views 1 week ago

Test
1 week ago



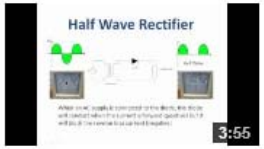
Capacitor and Diode Revision
35 views 2 weeks ago

Testing Diodes
34 views 3 weeks ago



Diodes #1 Introduction to Diodes
58 views 3 weeks ago

Diodes #2 Diode Terms
49 views 3 weeks ago



Diodes #3 Rectification
52 views 3 weeks ago

Capacitor Discharging
5 views 3 weeks ago

Capacitor Charging
1 view 3 weeks ago

Exploding Capacitor

ELECTRO VIDS

ElectroVids · 10 videos

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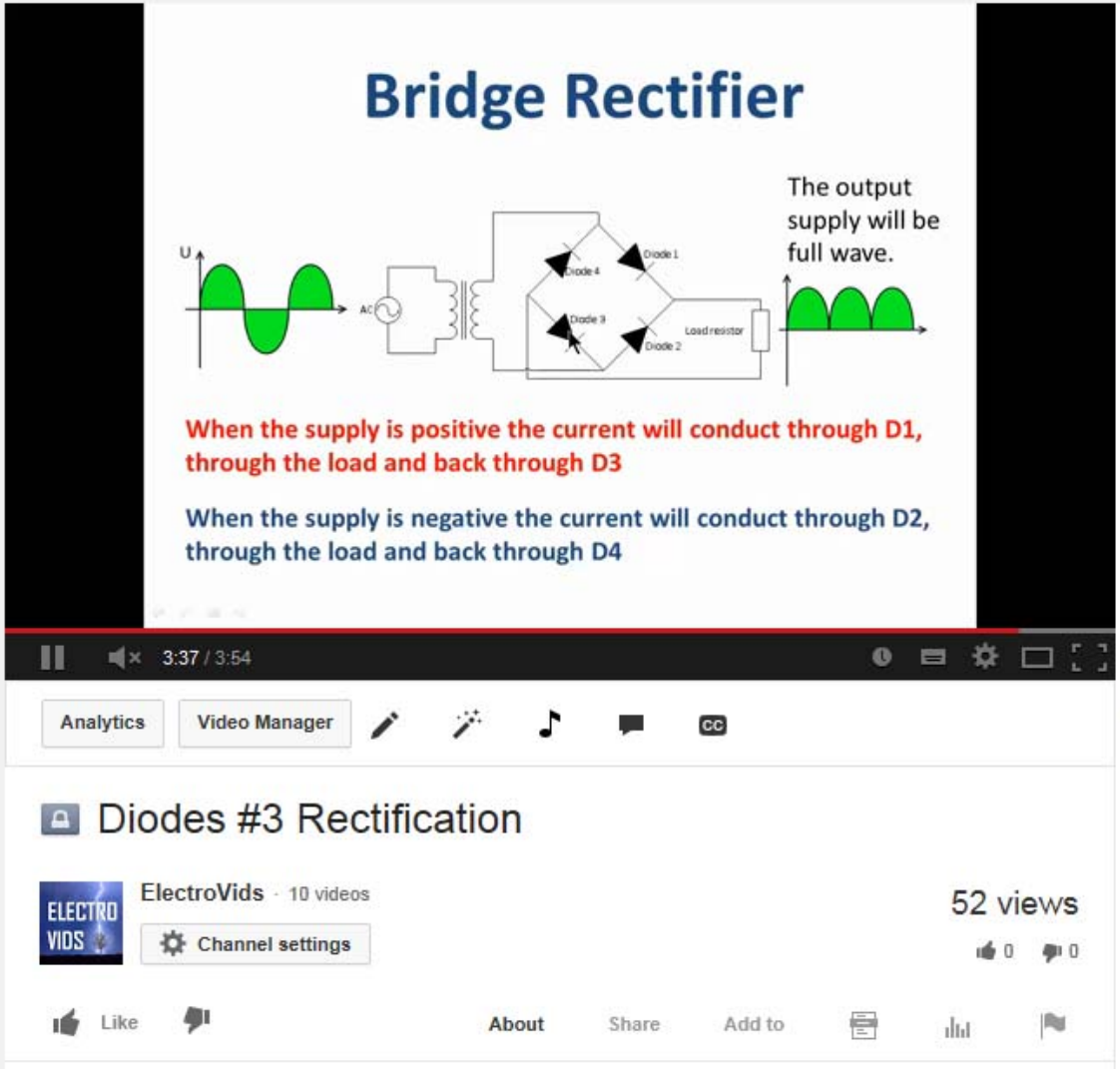
154 Views



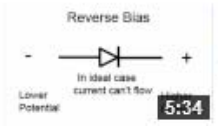
Capacitors #5 Construction
by ElectroVids
49 views

Capacitors #6 Markings and Safety
by ElectroVids
47 views

Power Electronics - Module 16: Diode Rectifiers
by Muhammad Salah
2,116 views

Bridge Rectifier Tutorial : How Does a Bridge Rectifier Work
by kannadahotsongs1
27,206 views

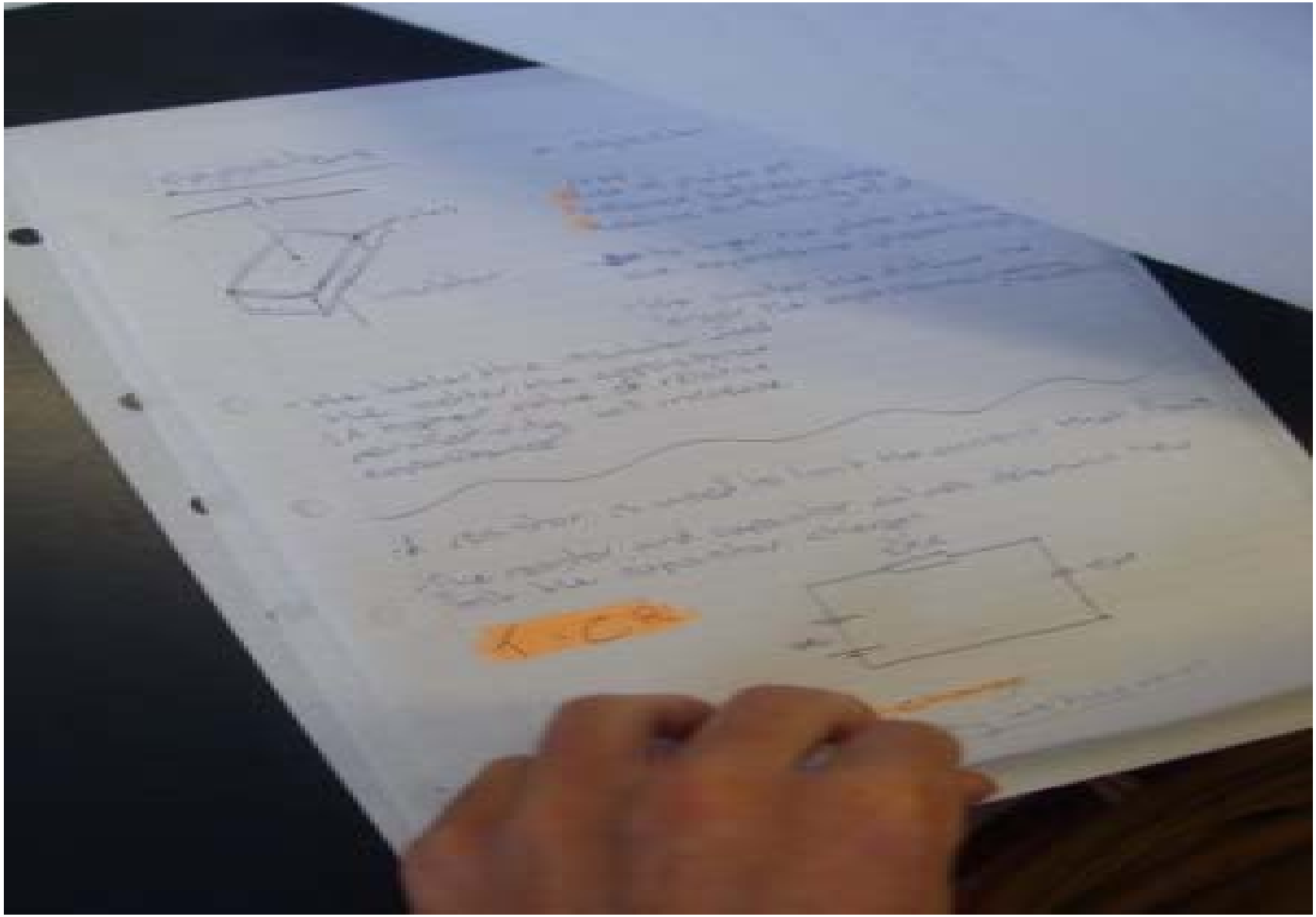
Diode Example: Half Wave Rectifier
by Darryl Morrell
22,017 views

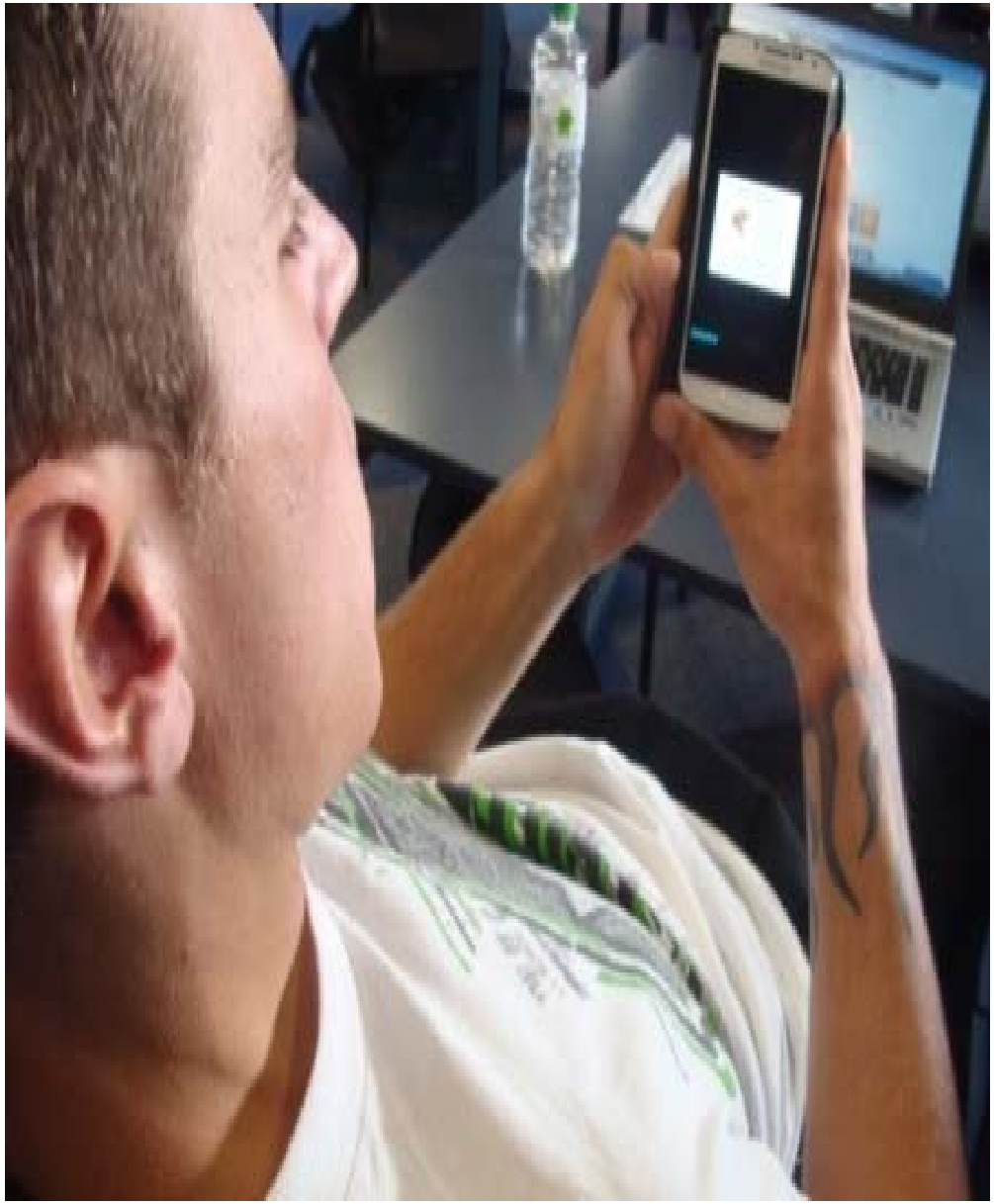


Rectifiers Part 2: Full wave rectifiers
by Andromeda Science
20,056 views

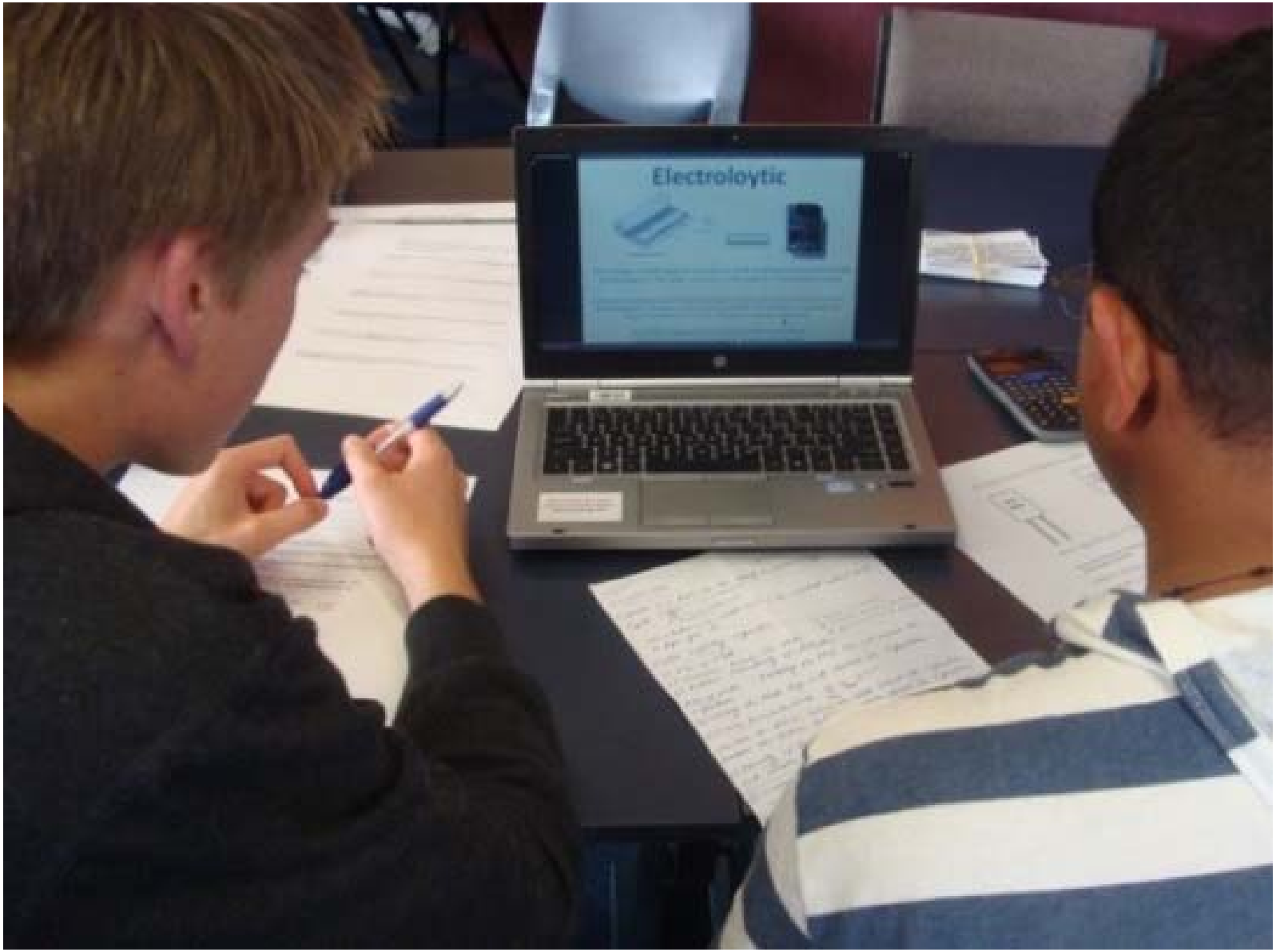
Diode :: Full Wave Bridge Rectifier
by Speak Electronics
43 views

Module - 1 Lecture - 4 Diode Rectifier

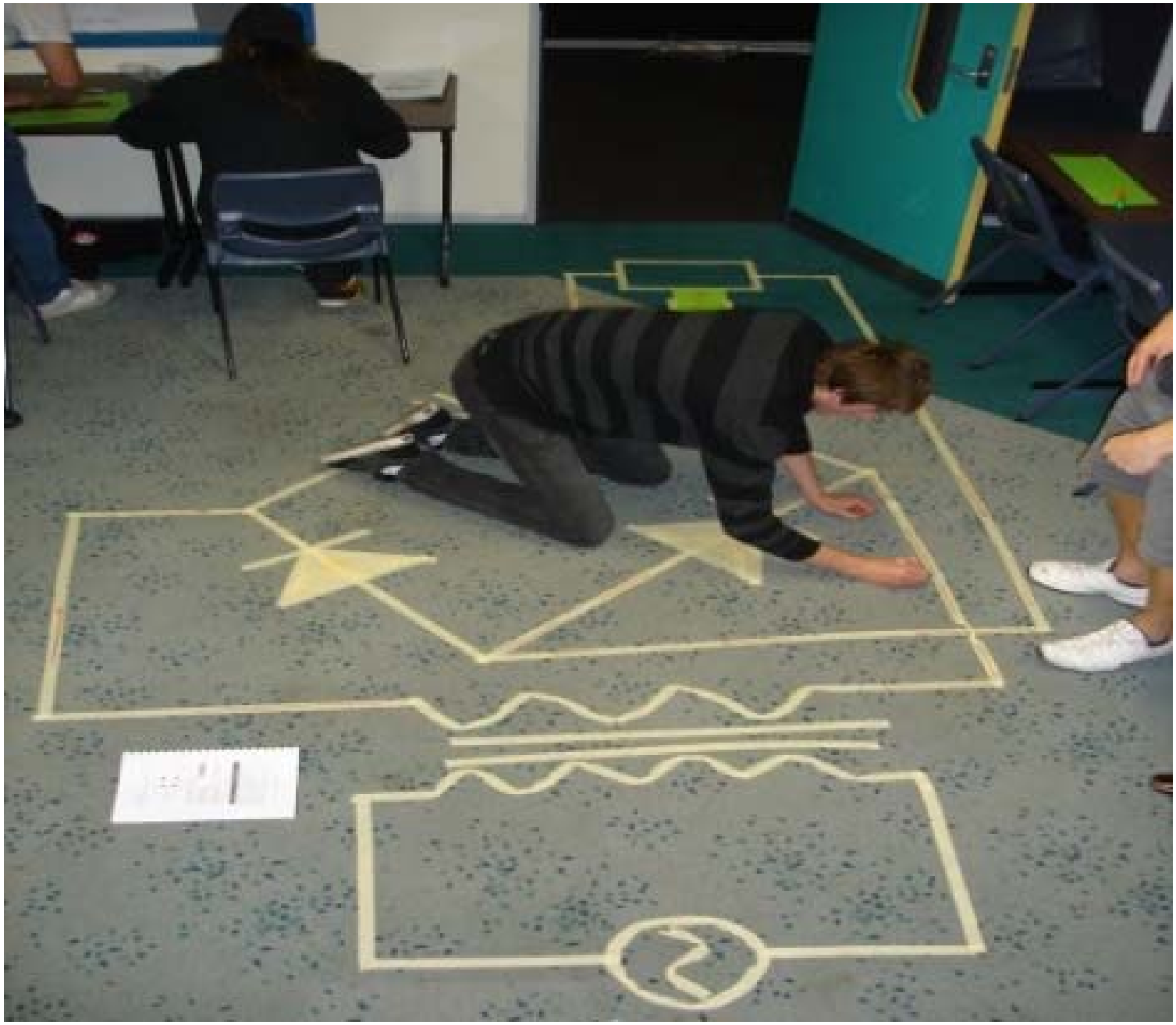


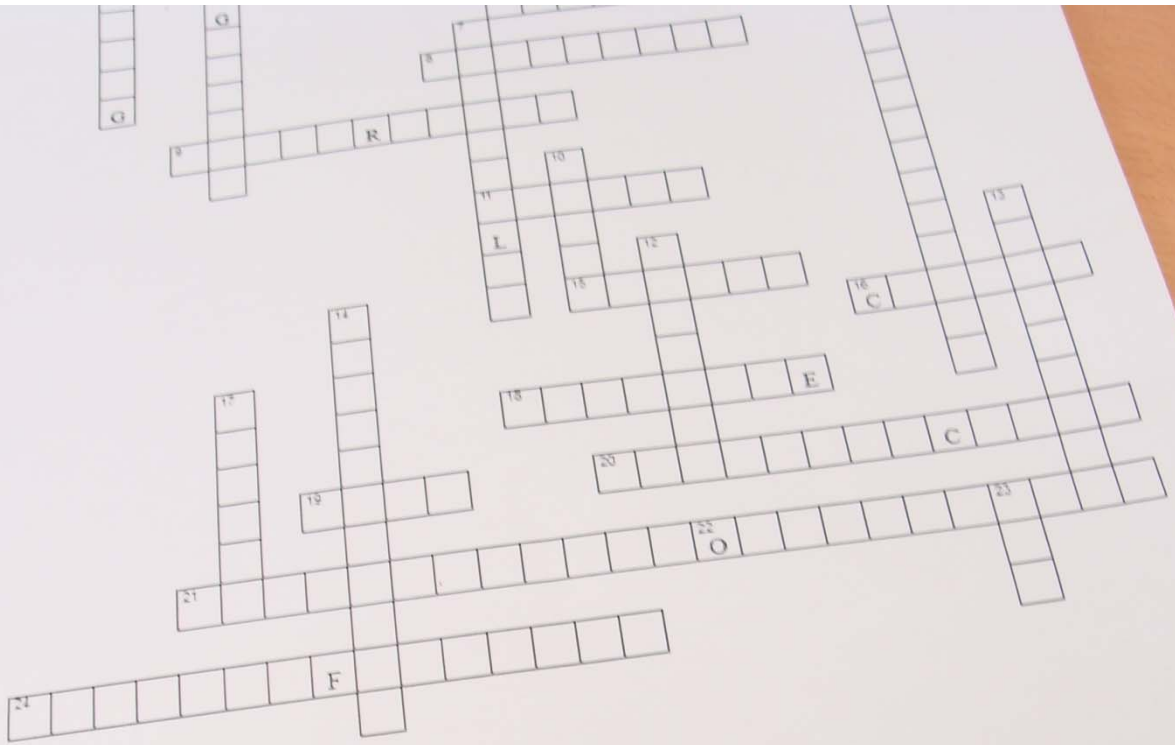



SAMSUNG


Electroloytic


CERAMIC
STACKED PLATE
ROLLED



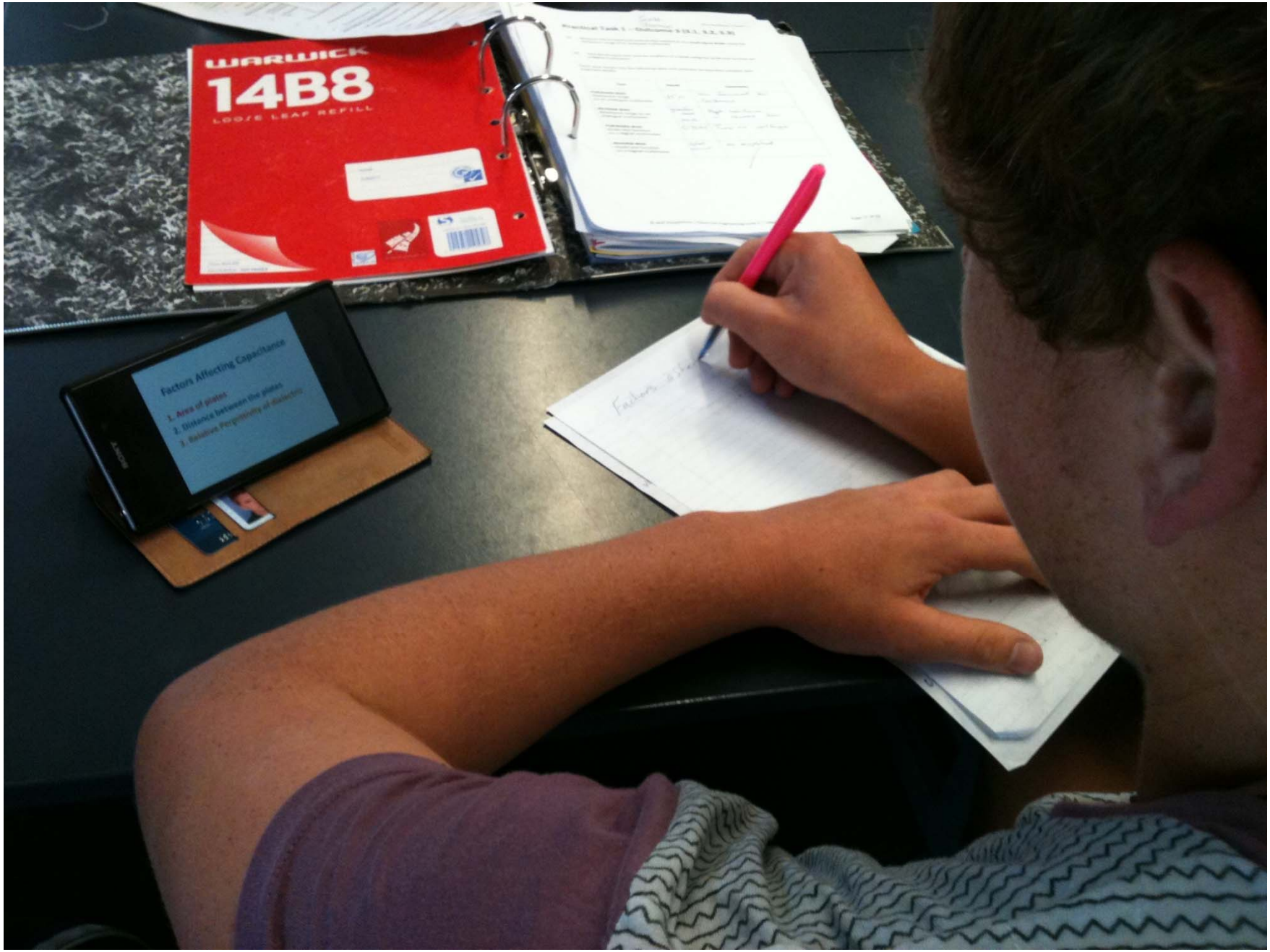


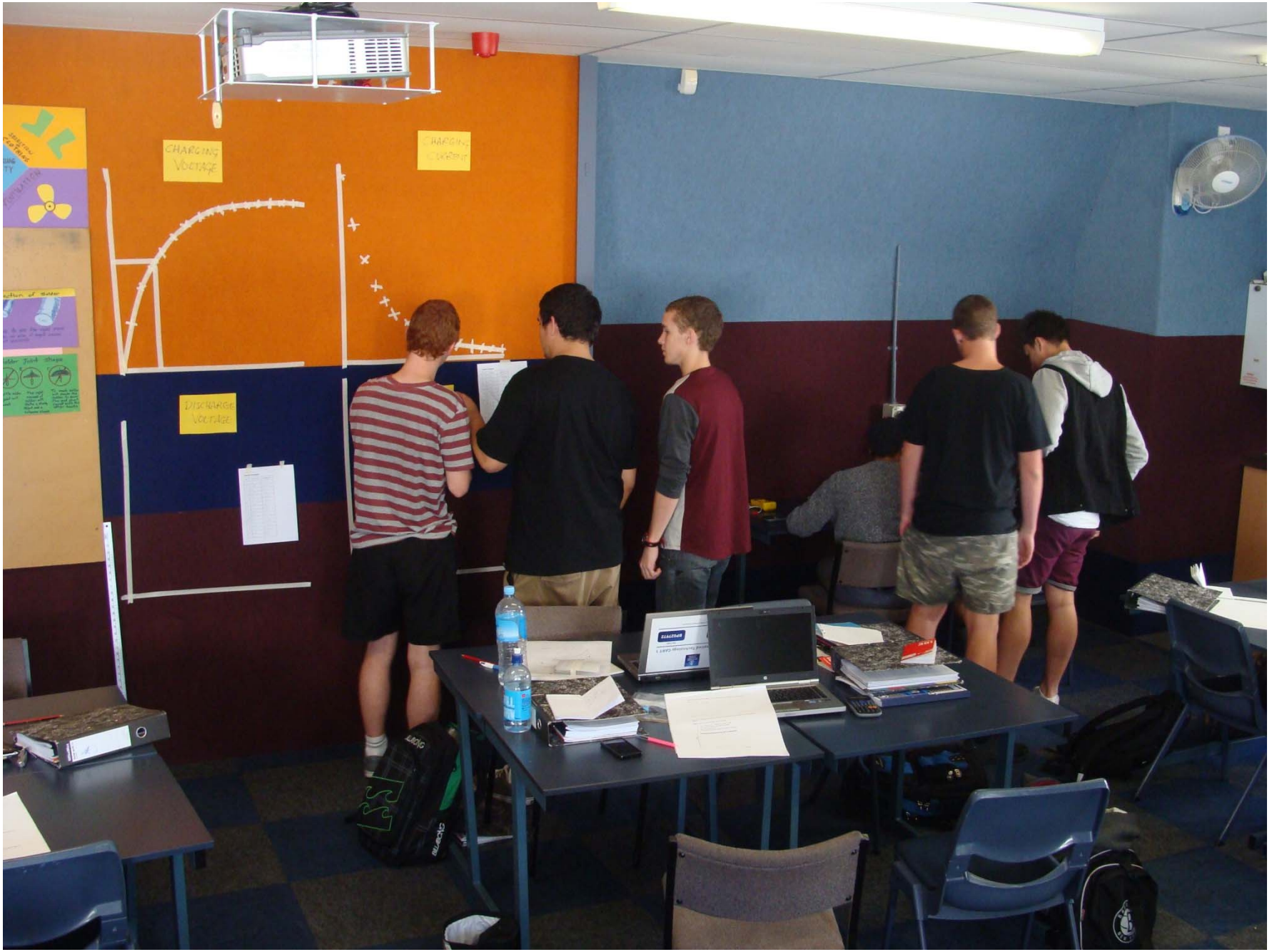
Across:

3. percentage of tin in solder
4. type of wrist strap to reduce electrostatics
6. tinning the iron increases this
8. used to protect from heat
9. it's important to get this right to make solder flow
16. large type of iron tip
18. size of solder that might cause short circuits
19. centre of solder
20. you don't want these when soldering a board
21. pencilrubber
22. tinning the iron reduces this

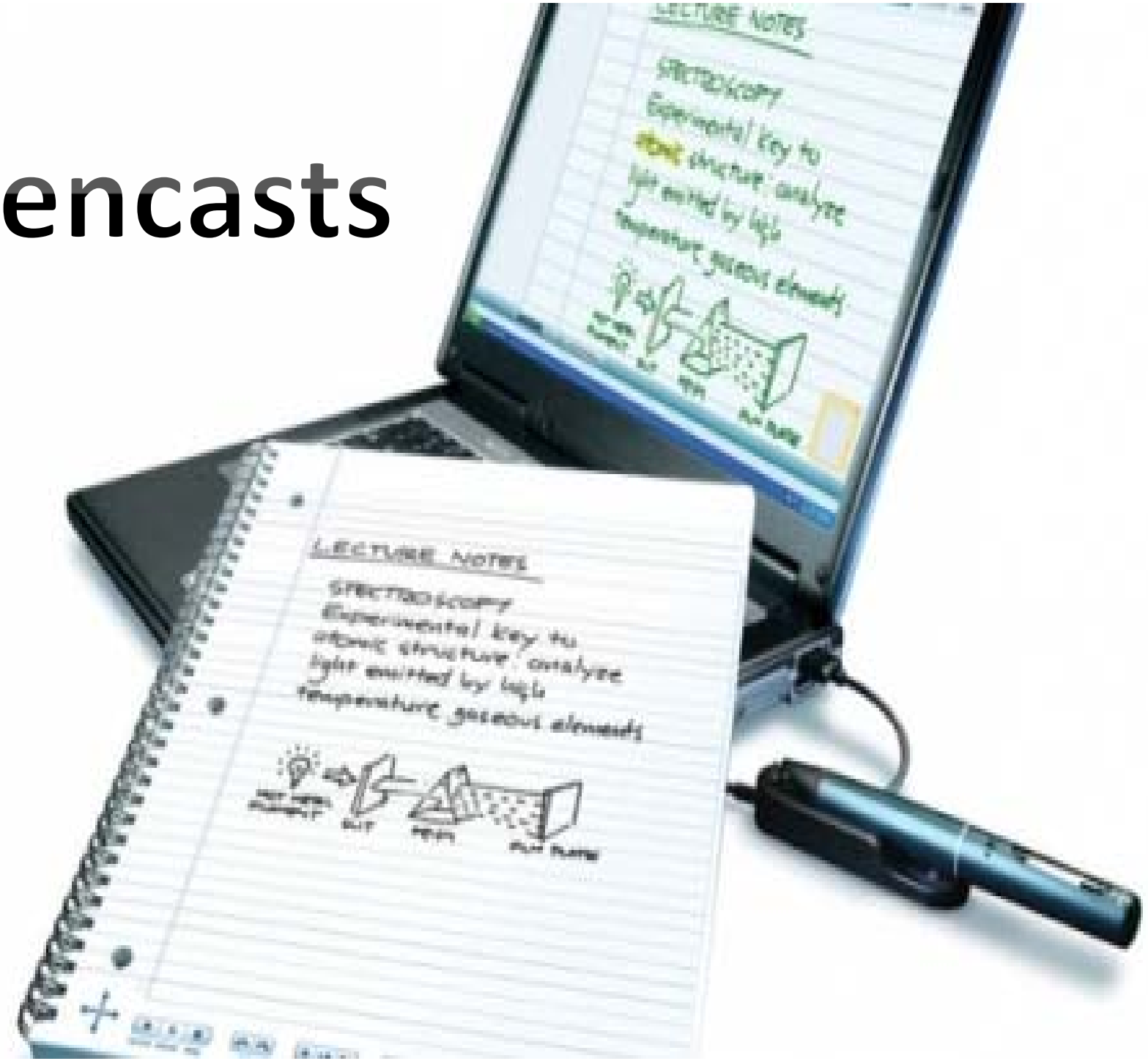
Down:

1. process of putting thin layer of solder on iron
2. worn to protect eyes
5. needed before you start work
7. check for this on iron cord
10. check for these in cord
12. shape of good solder joint
13. gauge of solder used for electronics
14. you need plenty of this when soldering
17. check for these in handle
23. what you should do to component before soldering to another component

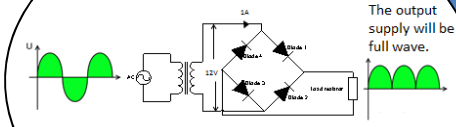

WARWICK
14B8
LOOSE LEAF REFILL
Factors Affecting Capacitance
1. Area of plates
2. Distance between the plates


CHARGING VOLTAGE
DISCHARGE VOLTAGE

Pencasts


LECTURE NOTES
SPECTROSCOPY
Experimental key to
atomic structure analyte
light emitted by light
temperature gaseous elements
LECTURE NOTES
SPECTROSCOPY
Experimental key to
atomic structure analyte
light emitted by light
temperature gaseous elements

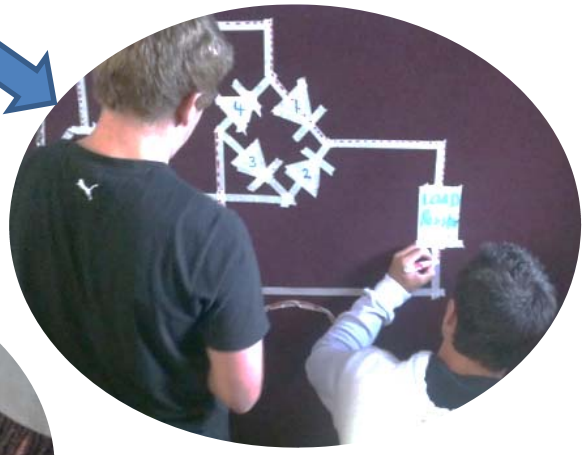
Bridge Rectifier



The output supply will be full wave.

When the supply is positive the current will conduct through D1, through the load and back through D3

When the supply is negative the current will conduct through the load and back through D4



Things that challenged me as a teacher

Students who are late to class

Students who are absent

Students who disrupt the class (good or bad)

Do I have enough material for the session?

Do I have enough time to deliver all the content

Do I have enough time to help those who are struggling

Do I have enough material to challenge the ‘smart’ ones

How do I get back ‘teacher control’ after giving it up during the tasks?