#flo #inclass

1 | **Current! and magnetism!**

flux: analogy, total number of field lines poking out of a surface

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area A and it is perpendicular to B, the flux is
$$\phi = BA \cos(\theta)$$
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if the area is tilted, we have lower flux. this makes sense, as really we are just taking the dot product from the normal to the surface.

change in flux is what induces current.

EMF :: eletromotive force. it is the rate of change of the flux w.r.t. time

$$EMF = \frac{d\phi}{dt}$$

flux can be changed by :: - mag field strength - total area of loop - area of the loop that is crossed by the field - angle of the loop w.r.t. the field - or, ofc, combos. the pictures! they match! like this:

A-B C-D B-A D-C

1.1 | **the experiment notes, for after break.**

moving magnet across coil of wire.

figure out the induced current over time

tenth of an amp.

moving the graph gives us,

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