

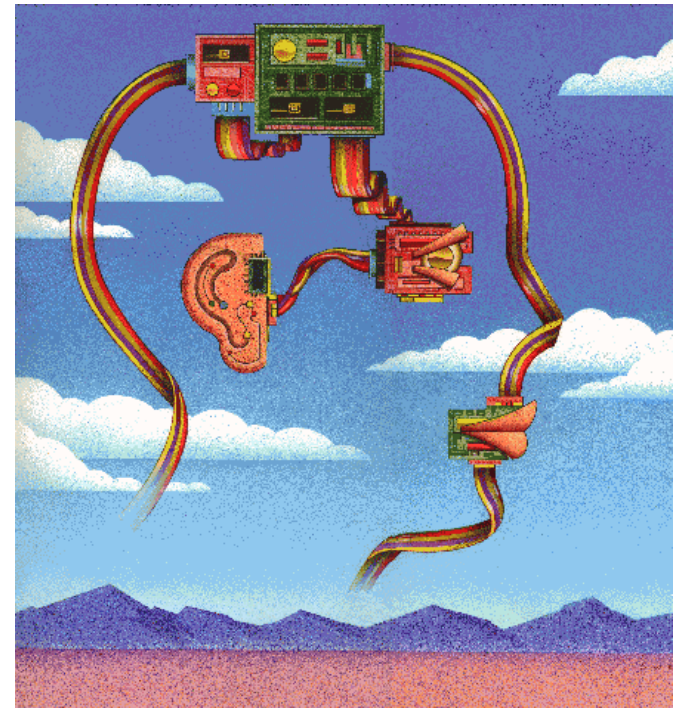
Make a Chip that Sees

Student Handouts

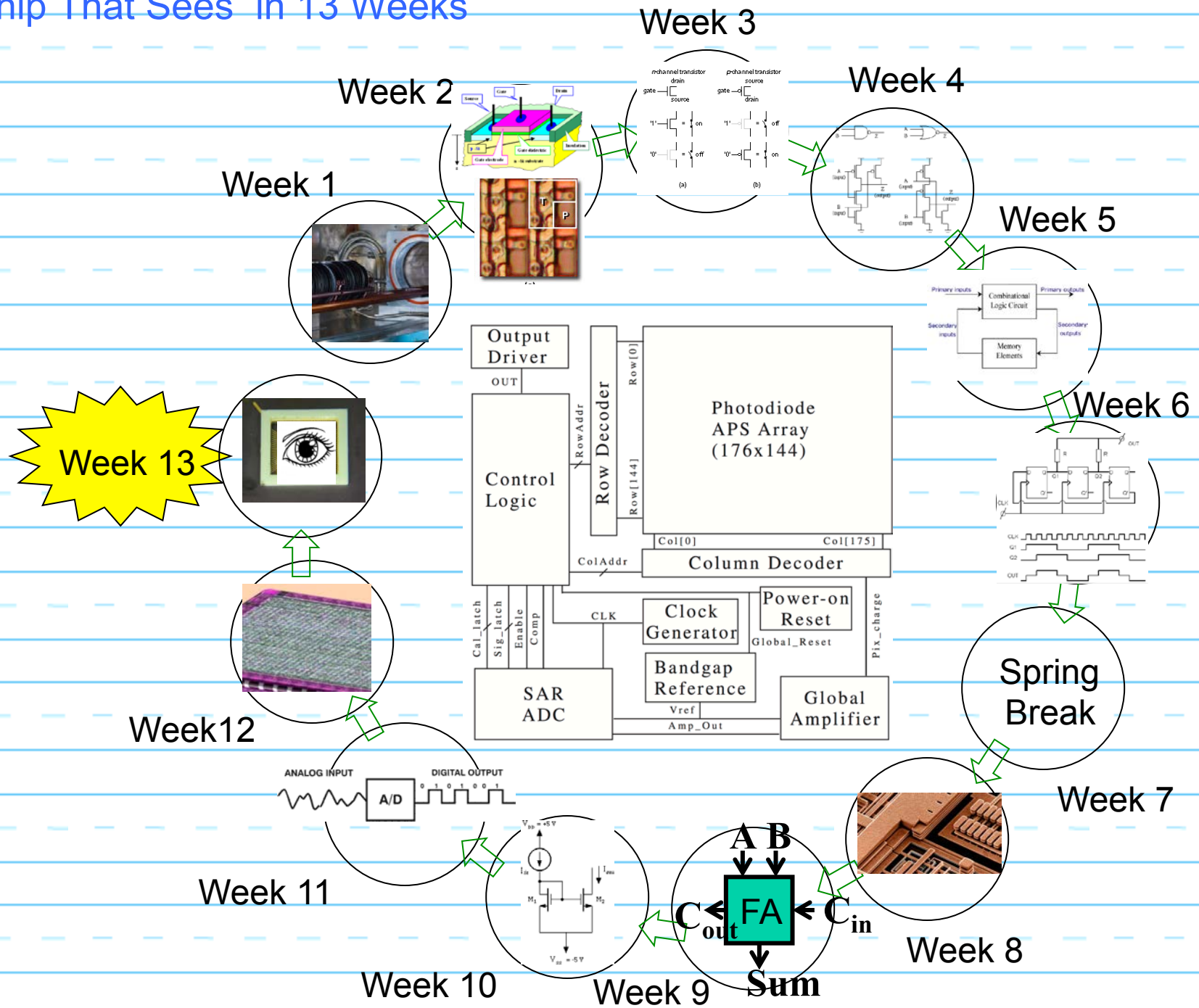
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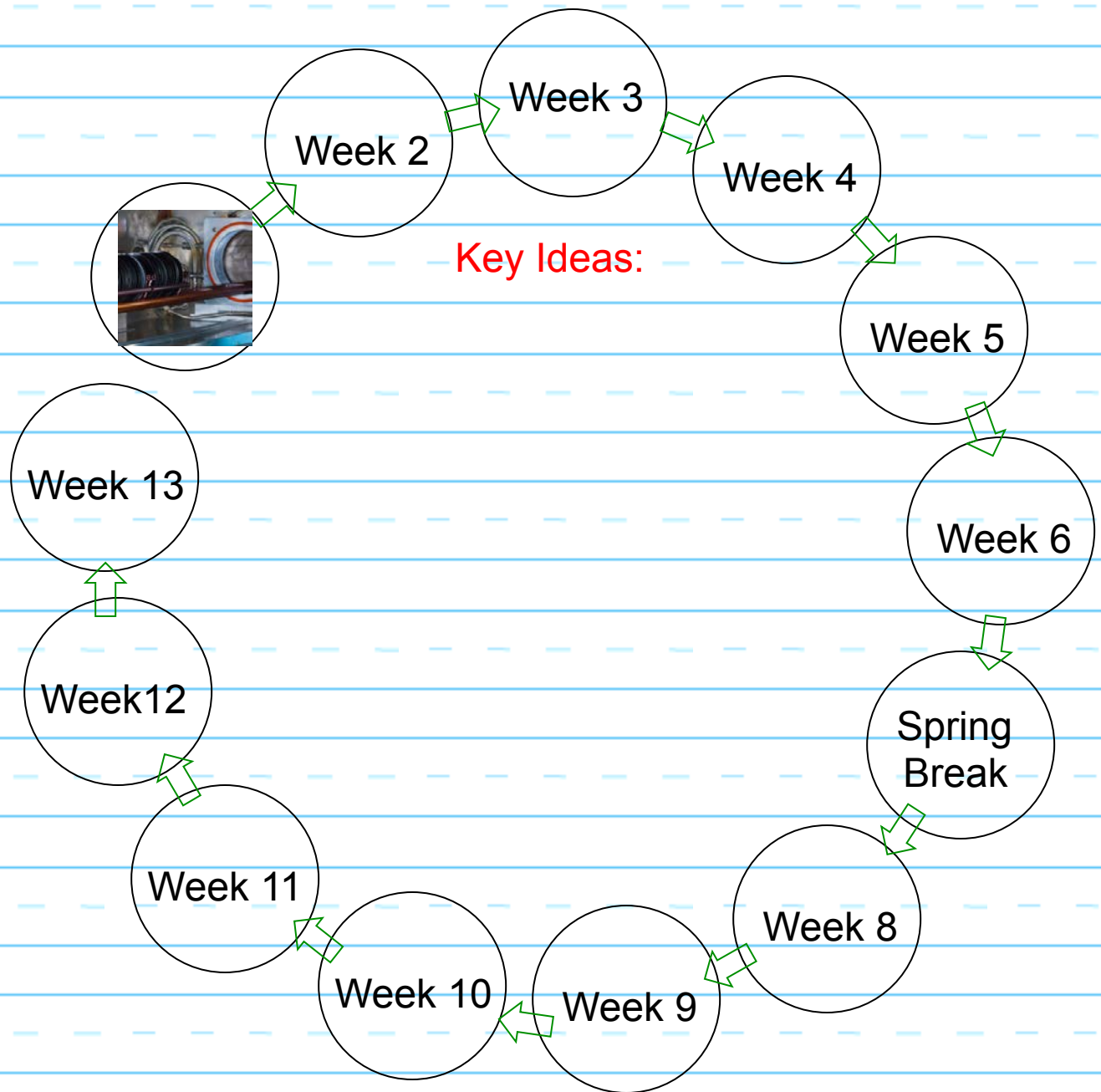


Make a Chip That Sees in 13 Weeks



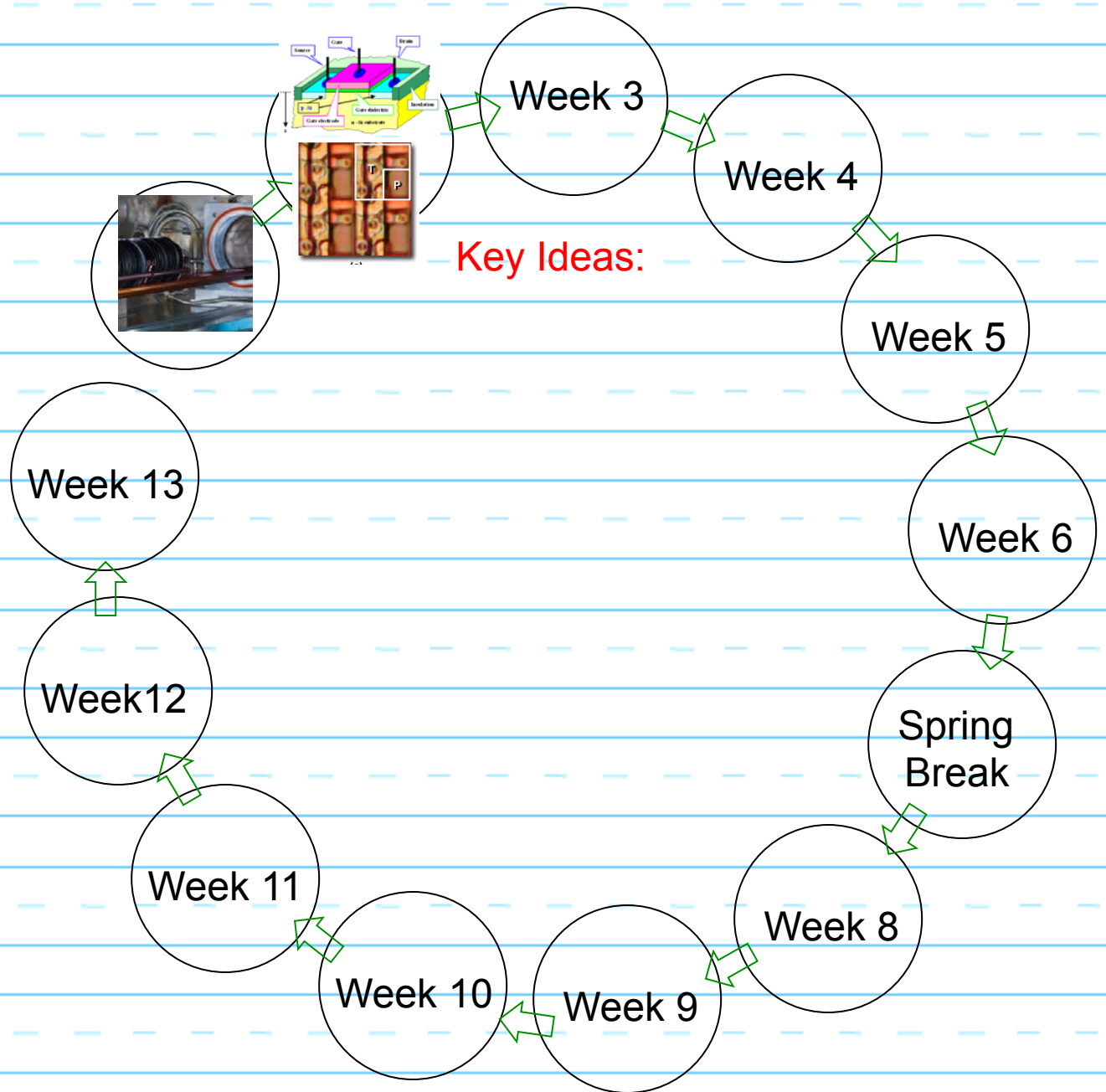
Week 1: Silicon Manufacturing and Design Rules

Notes:



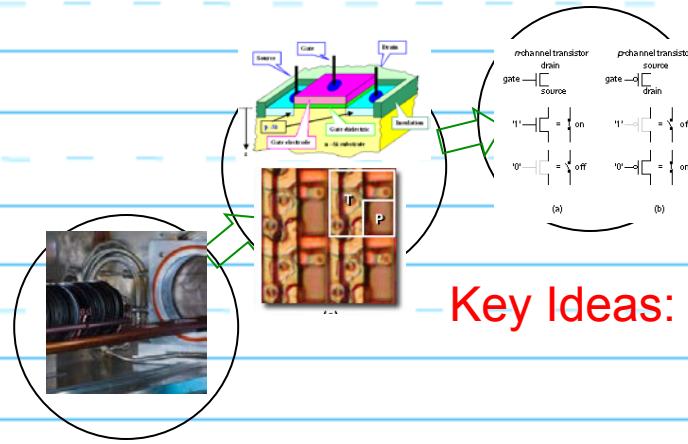
Week 2: MOS transistors, Photodetectors and Models

Notes:

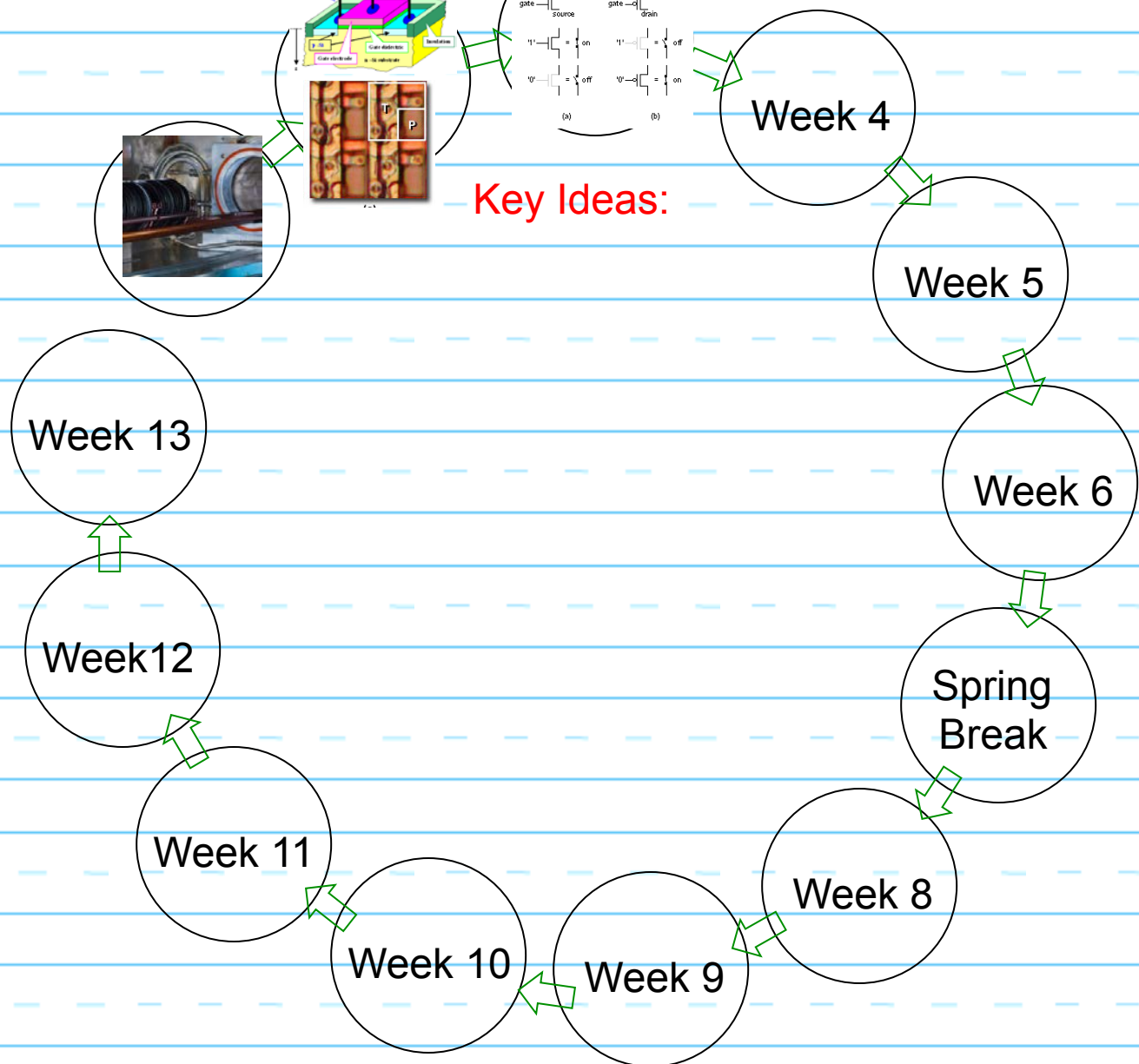


Week 3: MOS transistor abstraction as a switch, the inverter

Notes:

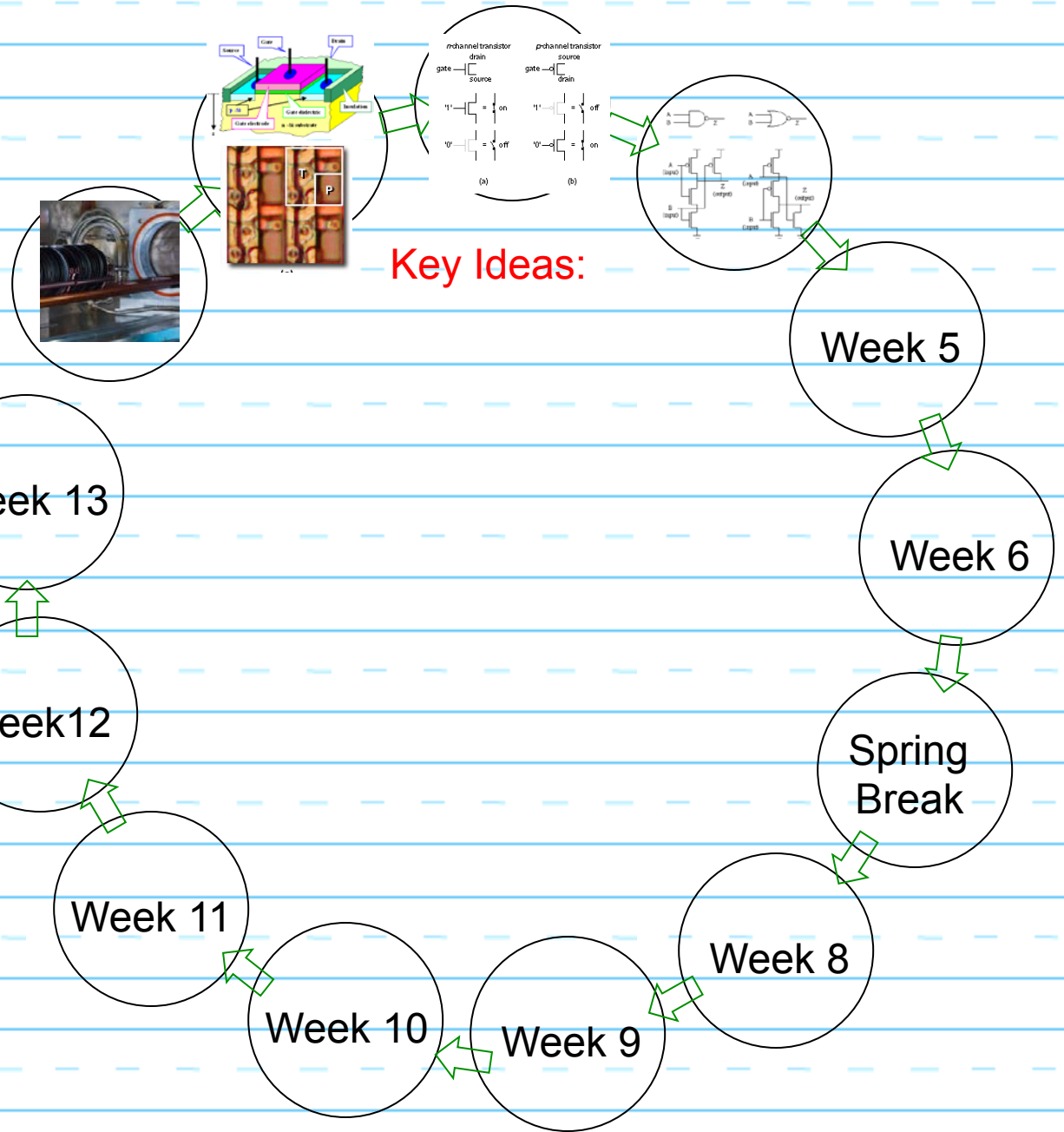


Key Ideas:



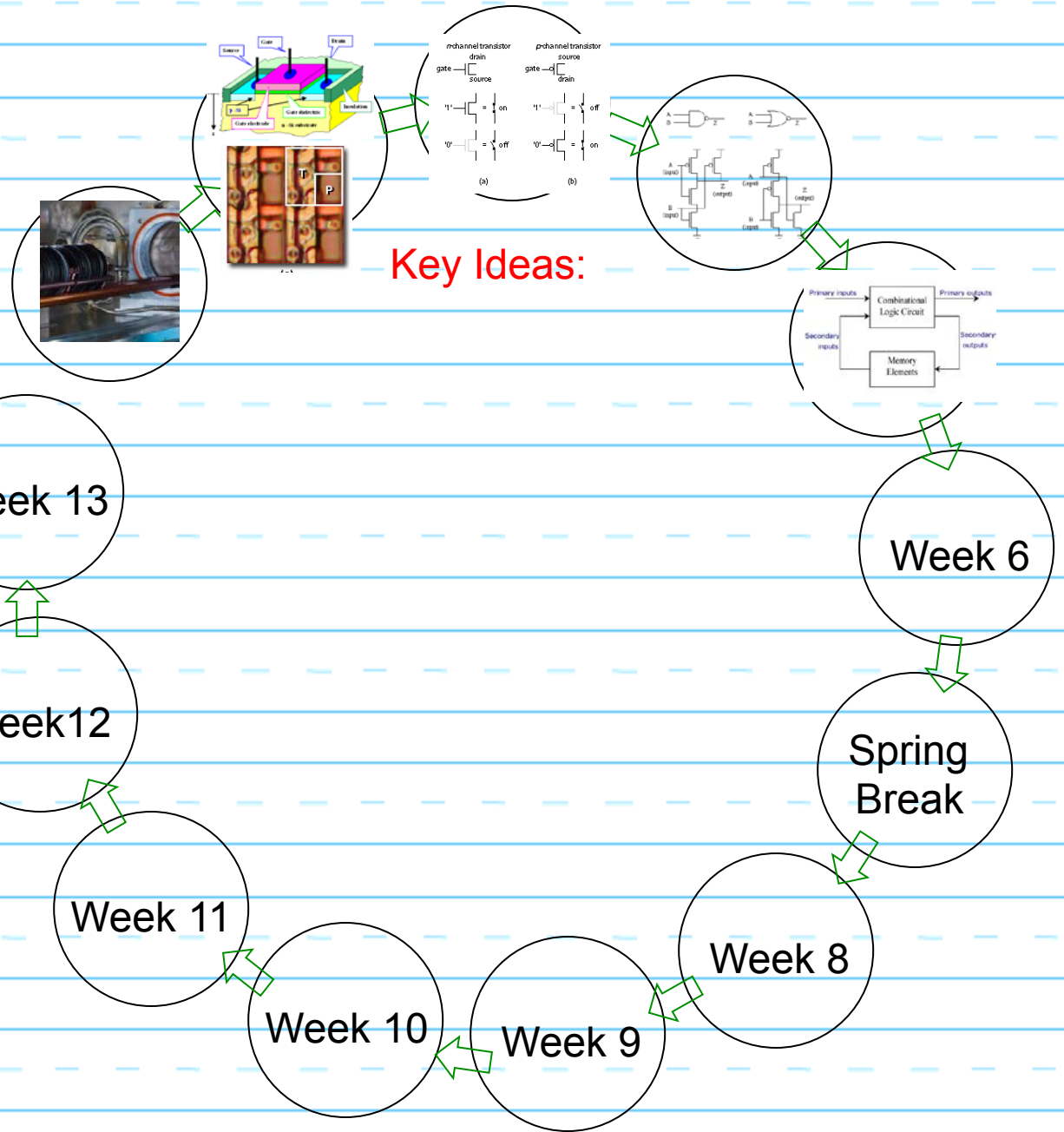
Week 4: Complex CMOS gates

Notes:



Week 5: State Holding and Sequential Circuits (I)

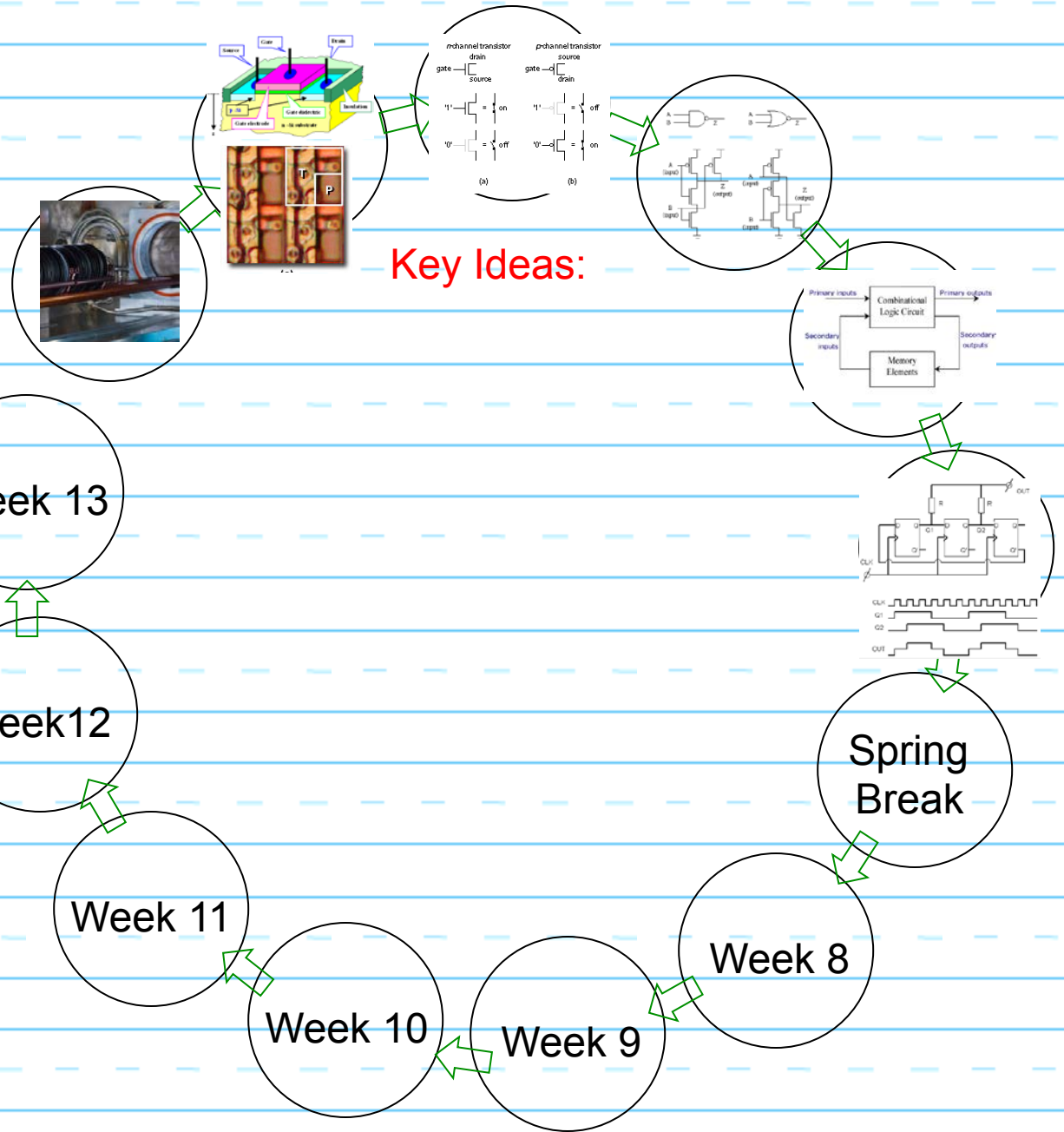
Notes:



Key Ideas:

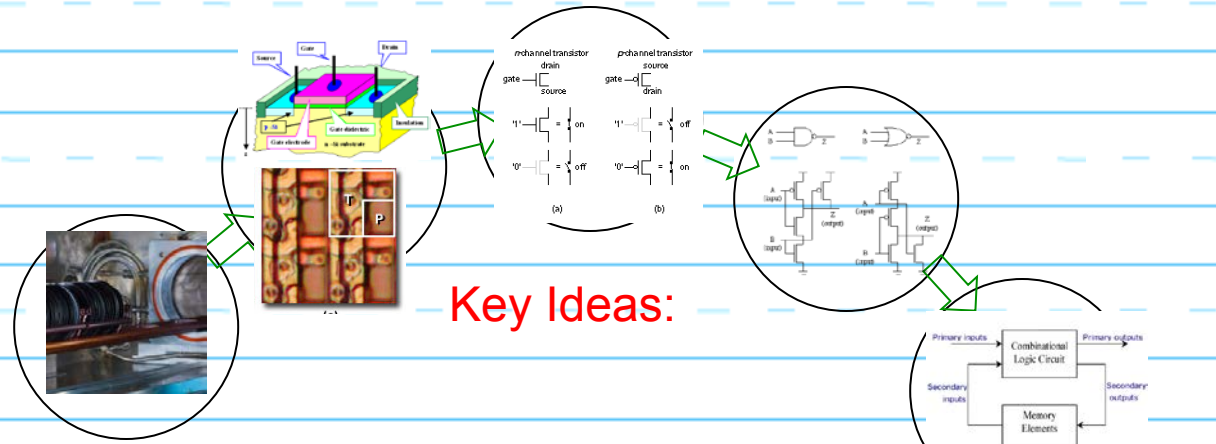
Week 6: State Holding and Sequential Circuits (II)

Notes:



Week 8: Interconnects, Area, Delay and Power

Notes:



Key Ideas:

Week 13

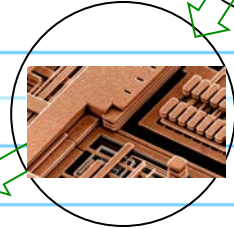
Week 12

Week 11

Week 10

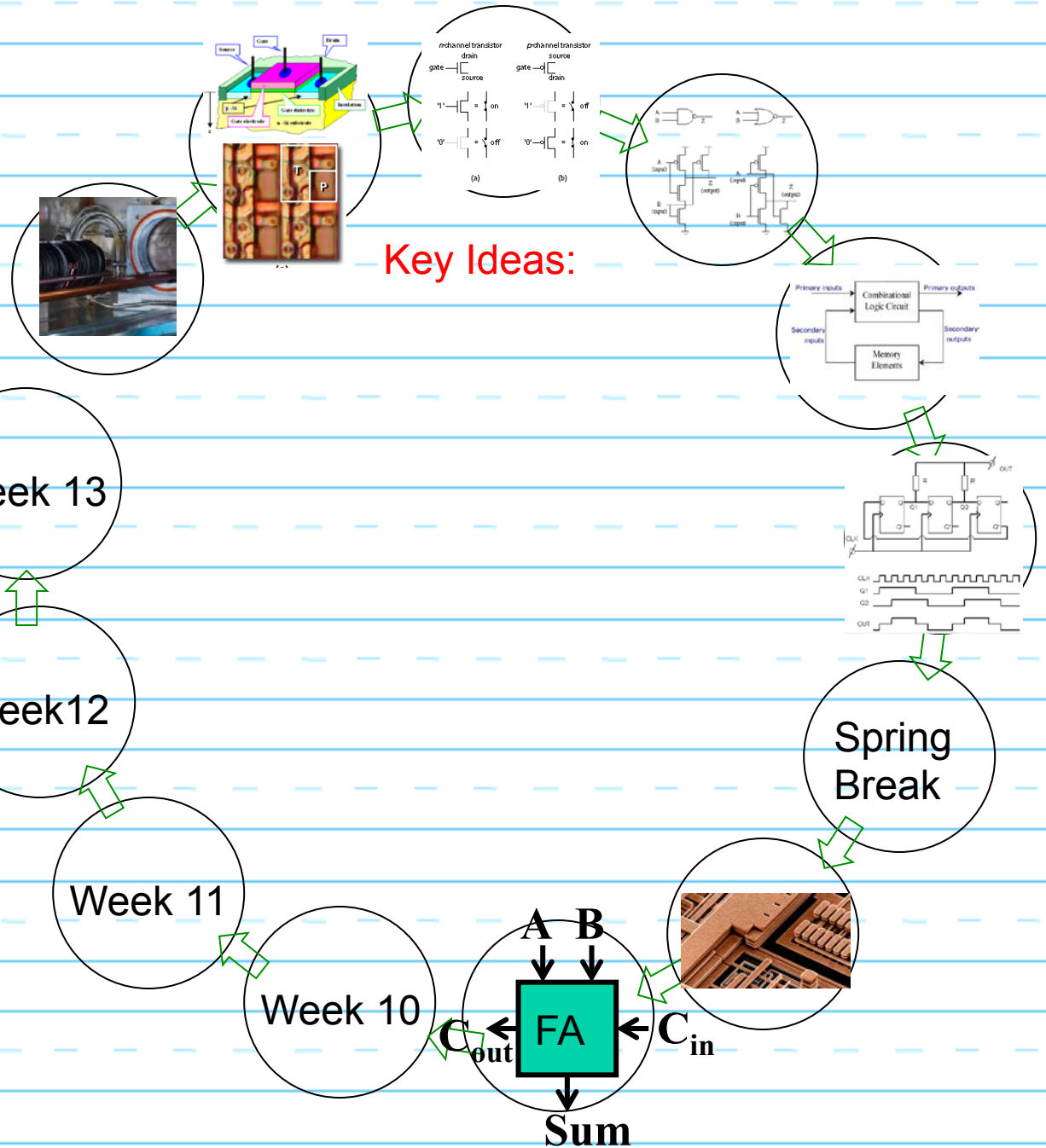
Week 9

Spring Break



Week 9: CMOS arithmetic units

Notes:



Week 13

Week 12

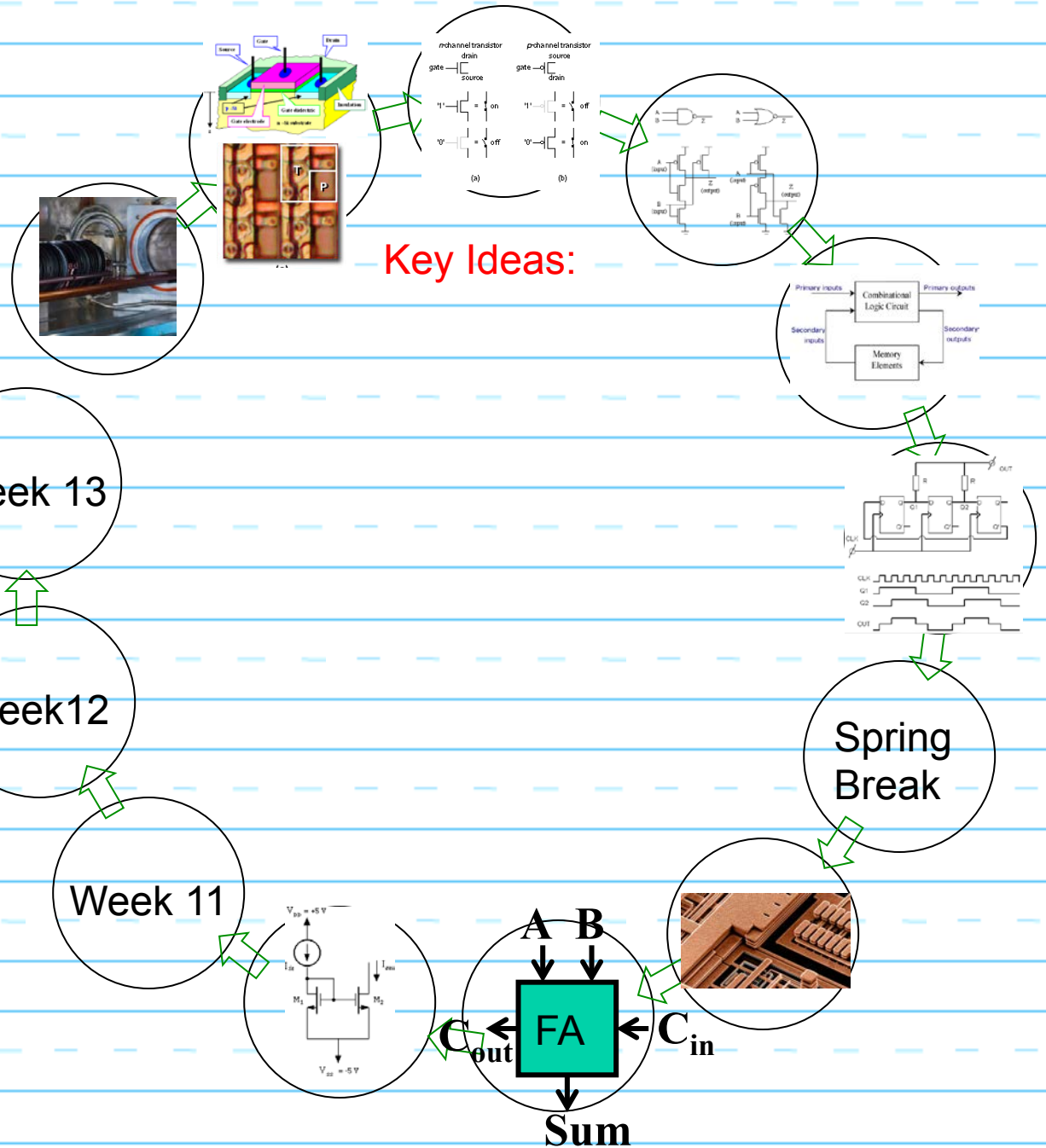
Week 11

Week 10

Spring Break

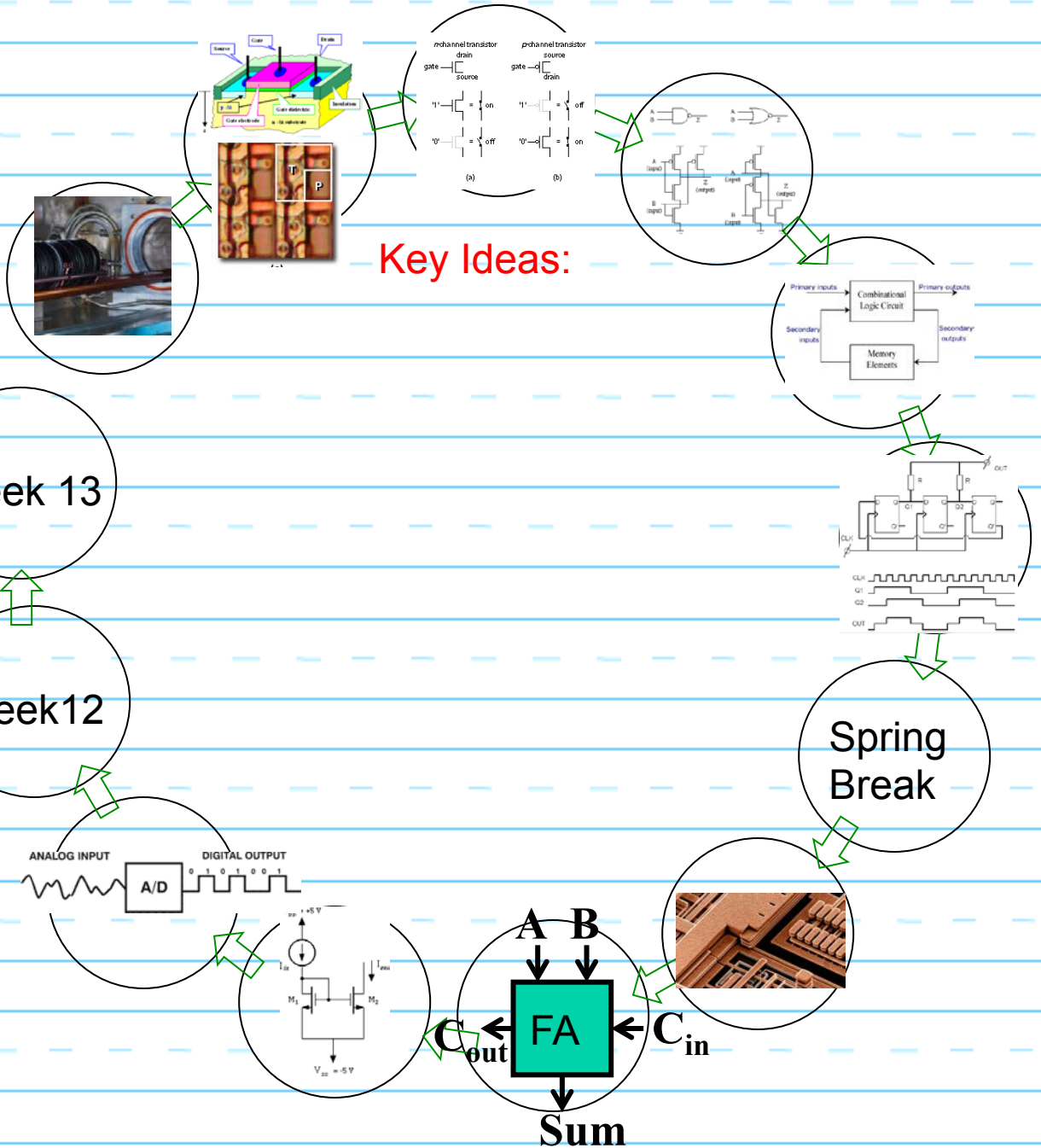
Week 10: Basic analog and interface circuits

Notes:



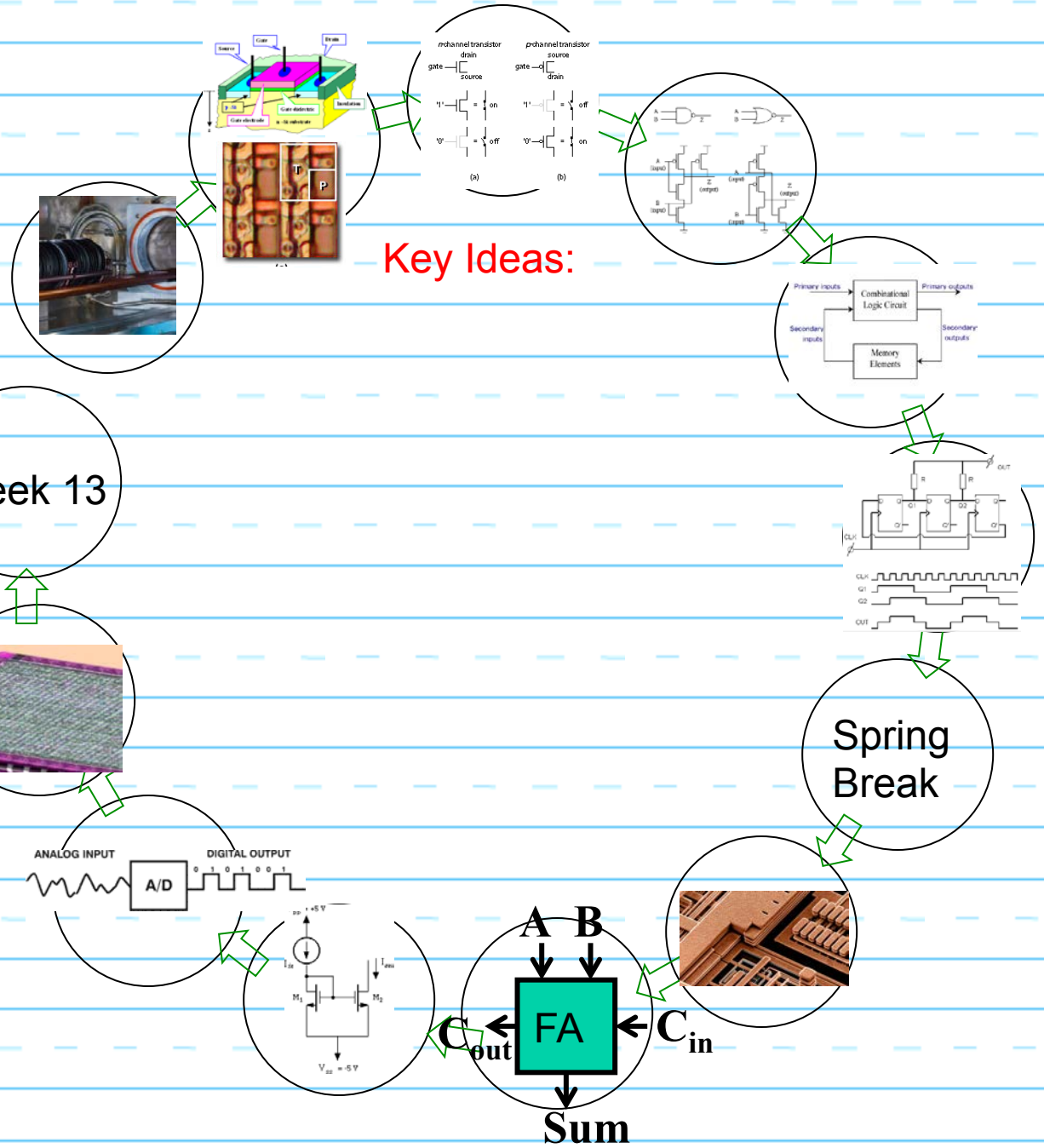
Week 11: Data converter circuits

Notes:



Week 12: System architecture and floor planning

Notes:



Week 13

Spring Break

Week 13: Final system integration in padframe

Notes:

