



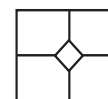
Curriculum documents for content areas such as quad sheets, unit plans, routines, model lessons, and Pre-AP/AP units can be found at these websites—

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Secondary Roadmap 2007/2008

Subject: Robotics/Electronics J.Lynch

Quad sheet:



- a one-page overview by grade level or subject area of the TEKS that must be taught during a school year
- divided into six- or nine-week intervals
- center shows the on-going TEKS

Weeks	Unit/Topic	Key Concepts/ Vocabulary	Strategies/Skills	Resources/ Technology	Integration with Other Content Areas	Notes/Calendar Considerations
Week 10	Combination circuits, timing circuits, and testing speed and rotation.	Ohm's law, 555 timers, metric system	Students complete forms, set up software, hardware.	Tests, handouts, computer software installation	Computer class, math, pdf files, downloading	
Week 11	Maneuvers w/ robots, navigation, & subroutines	P- basic commands, programming, & EEPROM maps	Circuit board activities, explanations, activities with components	Worksheets, textbooks, circuit boards	Mathematics, computer programming	
Week 12	Whisker tactile sensors, photo resistors, roaming	Formulas, debugging, servos, controls, resistance	Illustrations, lectures, activities, circuit building.	Computer programs, tests, worksheets, lab activities	Mathematics, computer class	
Week 13	Adjusting sensors, Infrared sensors, IR navigation, ac circuits	Infrared, detection range adjustments,	Programming activities, lecture, construction of circuits.	Tests, lab experiments, computer, multimeter & power supply	Computer Class, Mathematics	
Week 14	Distance w/ Infrared, calculating distance & frequency, Shadowing	7-segment, sensors, stamp plot, subroutines	Explain, demonstrate, build & program circuits	Microcontroller program, circuit boards, pdf files, components	Mathematics, computer science	Holiday – Monday, Sept.3rd Labor Day
Week 15	Binary pulses, pulsing commands, if... then statements	Frequency, binary, pulsing, pulsing, if...then	Explain, program, build & analyze circuits.	BOE, piezo speakers, oscilloscope, textbook.	Mathematics, computer programming	
Week 16	Keypad control, remote codes	Remote controls, frequency diagnostics	Develop programs, practice variations, build, design circuits	Board of education, software, electronic instruments, programs	Mathematics, computer science	
Week 17	Multifunction robots, program modifications	Multi-tasking, diagnostics, modifications	Activities, programming, circuit building, design	Internet, software, textbooks, instruments	Mathematics, computer science, programs	
Week 18	Analogue to digital, basic communication	Transmitting & receiving, parallel & series transmission	Develop programs, practice variations, build, design circuit	Board of education, software, electronic instruments, programs	Mathematics, computer programming, science	



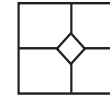
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