Load and Store Group

LDA	Load Accumulator	Absolute	LDA $aaaa	$AD	3	N,Z
		Zero Page	LDA $aa	$A5	2	
		Immediate	LDA #$aa	$A9	2	
		Absolute Indexed, X	LDA $aaaa,X	$BD	3	
		Absolute Indexed, Y	LDA $aaaa,Y	$B9	3	
		Zero Page Indexed, X	LDA $aa,X	$B5	2	
		Indexed Indirect	LDA ($aa,X)	$A1	2	
		Indirect Indexed	LDA ($aa),Y	$B1	2	

LDX	Load X Register	Absolute	LDX $aaaa	$AE	3	N,Z
		Zero Page	LDX $aa	$A6	2	
		Immediate	LDX #$aa	$A2	2	
		Absolute Indexed, Y	LDX $aaaa,Y	$BE	3	
		Zero Page Indexed, Y	LDX $aa,Y	$B6	2	

LDY	Load Y Register	Absolute	LDY $aaaa	$AC	3	N,Z
		Zero Page	LDY $aa	$A4	2	
		Immediate	LDY #$aa	$A0	2	
		Absolute Indexed, X	LDY $aaaa,X	$BC	3	
		Zero Page Indexed, X	LDY $aa,X	$B4	2	

STA	Store Accumulator	Absolute	STA $aaaa	$8D	3	none
		Zero Page	STA $aa	$85	2	
		Absolute Indexed, X	STA $aaaa,X	$9D	3	
		Absolute Indexed, Y	STA $aaaa,Y	$99	3	
		Zero Page Indexed, X	STA $aa,X	$95	2	
		Indexed Indirect	STA ($aa,X)	$81	2	
		Indirect Indexed	STA ($aa),Y	$91	2	

STX	Store X Register	Absolute	STX $aaaa	$8E	3	none
		Zero Page	STX $aa	$86	2	
		Zero Page Indexed, Y	STX $aa,Y	$96	2	

STY	Store Y Register	Absolute	STY $aaaa	$8C	3	none
		Zero Page	STY $aa	$84	2	
		Zero Page Indexed, X	STY $aa,X	$94	2	

Arithmetic Group

ADC	Add with Carry	Absolute	ADC $aaaa	$6D	3	N,V,Z,C
		Zero Page	ADC $aa	$65	2	
		Immediate	ADC #$aa	$69	2	
		Absolute Indexed, X	ADC $aaaa,X	$7D	3	
		Absolute Indexed, Y	ADC $aaaa,Y	$79	3	
		Zero Page Indexed, X	ADC $aa,X	$75	2	
		Indexed Indirect	ADC ($aa,X)	$61	2	
		Indirect Indexed	ADC ($aa),Y	$71	2	

SBC	Subtract with Carry	Absolute	SBC $aaaa	$ED	3	N,V,Z,C
		Zero Page	SBC $aa	$E5	2	
		Immediate	SBC #$aa	$E9	2	
		Absolute Indexed, X	SBC $aaaa,X	$FD	3	
		Absolute Indexed, Y	SBC $aaaa,Y	$F9	3	
		Zero Page Indexed, X	SBC $aa,X	$F5	2	
		Indexed Indirect	SBC ($aa,X)	$E1	2	
		Indirect Indexed	SBC ($aa),Y	$F1	2	

Increment and Decrement Group

INC	Increment a memory location	Absolute	INC $aaaa	$EE	3	N,Z
		Zero Page	INC $aa	$E6	2	
		Absolute Indexed, X	INC $aaaa,X	$FE	3	
		Zero Page Indexed, X	INC $aa,X	$F6	2	
INX	Increment the X register	Implied	INX	$E8	1	N,Z
INY	Increment the Y register	Implied	INY	$C8	1	N,Z
DEC	Decrement a memory location	Absolute	DEC $aaaa	$CE	3	N,Z
		Zero Page	DEC $aa	$C6	2	
		Absolute Indexed, X	DEC $aaaa,X	$DE	3	
		Zero Page Indexed, X	DEC $aa,X	$D6	2	
DEX	Decrement the X register	Implied	DEX	$CA	1	N,Z
DEY	Decrement the Y register	Implied	DEY	$88	1	N,Z

Register Transfer Group

TAX	Transfer accumulator to X	Implied	TAX	$AA	1	N,Z
TAY	Transfer accumulator to Y	Implied	TAY	$A8	1	N,Z
TXA	Transfer X to accumulator	Implied	TXA	$8A	1	N,Z
TYA	Transfer Y to accumulator	Implied	TYA	$98	1	N,Z

Logical Group

AND	Logical AND	Absolute	AND $aaaa	$2D	3	N,Z
		Zero Page	AND $aa	$25	2	
		Immediate	AND #$aa	$29	2	
		Absolute Indexed, X	AND $aaaa,X	$3D	3	
		Absolute Indexed, Y	AND $aaaa,Y	$39	3	
		Zero Page Indexed, X	AND $aa,X	$35	2	
		Indexed Indirect	AND ($aa,X)	$21	2	
		Indirect Indexed	AND ($aa),Y	$31	2	
EOR	Exclusive OR	Absolute	EOR $aaaa	$4D	3	N,Z
		Zero Page	EOR $aa	$45	2	
		Immediate	EOR #$aa	$49	2	
		Absolute Indexed, X	EOR $aaaa,X	$5D	3	
		Absolute Indexed, Y	EOR $aaaa,Y	$59	3	
		Zero Page Indexed, X	EOR $aa,X	$55	2	
		Indexed Indirect	EOR ($aa,X)	$41	2	
		Indirect Indexed	EOR ($aa),Y	$51	2	

ORA	Logical Inclusive OR	Absolute	ORA $aaaa	$0D	3	N,Z
		Zero Page	ORA $aa	$05	2	
		Immediate	ORA #$aa	$09	2	
		Absolute Indexed, X	ORA $aaaa,X	$1D	3	
		Absolute Indexed, Y	ORA $aaaa,Y	$19	3	
		Zero Page Indexed, X	ORA $aa,X	$15	2	
		Indexed Indirect	ORA ($aa,X)	$01	2	
		Indirect Indexed	ORA ($aa),Y	$11	2	

Compare and Bit Test Group

CMP	Compare accumulator	Absolute	CMP $aaaa	$CD	3	N,Z,C
		Zero Page	CMP $aa	$C5	2	
		Immediate	CMP #$aa	$C9	2	
		Absolute Indexed, X	CMP $aaaa,X	$DD	3	
		Absolute Indexed, Y	CMP $aaaa,Y	$D9	3	
		Zero Page Indexed, X	CMP $aa,X	$D5	2	
		Indexed Indirect	CMP ($aa,X)	$C1	2	
		Indirect Indexed	CMP ($aa),Y	$D1	2	
CPX	Compare X register	Absolute	CPX $aaaa	$EC	3	N,Z,C
		Zero Page	CPX $aa	$E4	2	
		Immediate	CPX #$aa	$E0	2	
CPY	Compare Y register	Absolute	CPY $aaaa	$CC	3	N,Z,C
		Zero Page	CPY $aa	$C4	2	
		Immediate	CPY #$aa	$C0	2	
BIT	Bit Test	Absolute	BIT $aaaa	$2C	3	N,V,Z
		Zero Page	BIT $aa	$24	2	

Shift and Rotate Group

ASL	Arithmetic Shift Left	Absolute	ASL $aaaa	$0E	3	N,Z,C
		Zero Page	ASL $aa	$06	2	
		Accumulator	ASL A	$0A	1	
		Absolute Indexed, X	ASL $aaaa,X	$1E	3	
		Zero Page Indexed, X	ASL $aa,X	$16	2	
LSR	Logical Shift Right	Absolute	LSR $aaaa	$4E	3	N,Z,C
		Zero Page	LSR $aa	$46	2	
		Accumulator	LSR A	$4A	1	
		Absolute Indexed, X	LSR $aaaa,X	$5E	3	
		Zero Page Indexed, X	LSR $aa,X	$56	2	

ROL	Rotate Left	Absolute	ROL $aaaa	$2E	3	N,Z,C
		Zero Page	ROL $aa	$26	2	
		Accumulator	ROL A	$2A	1	
		Absolute Indexed, X	ROL $aaaa,X	$3E	3	
		Zero Page Indexed, X	ROL $aa,X	$36	2	

ROR	Rotate Right	Absolute	ROR $aaaa	$6E	3	N,Z,C
		Zero Page	ROR $aa	$66	2	
		Accumulator	ROR A	$6A	1	
		Absolute Indexed, X	ROR $aaaa,X	$7E	3	
		Zero Page Indexed, X	ROR $aa,X	$76	2	

Jump and Branch Group

JMP	Jump to another location	Absolute	JMP $aaaa	$4C	3	none
		Indirect	JMP ($aaaa)	$6C	3	
BCC	Branch if carry flag clear	Relative	BCC aa	$90	2	none
BCS	Branch if carry flag set	Relative	BCS aa	$B0	2	none
BEQ	Branch if zero flag set	Relative	BEQ aa	$F0	2	none
BMI	Branch if negative flag set	Relative	BMI aa	$30	2	none
BNE	Branch if zero flag clear	Relative	BNE aa	$D0	2	none
BPL	Branch if negative flag clear	Relative	BPL aa	$10	2	none
BVC	Branch if overflow flag clear	Relative	BVC aa	$50	2	none
BVS	Branch if overflow flag set	Relative	BVS aa	$70	2	none

Stack Group

TSX	Transfer stack pointer to X	Implied	TSX	$BA	1	N,Z
TXS	Transfer X to stack pointer	Implied	TXS	$9A	1	none
PHA	Push accumulator on stack	Implied	PHA	$48	1	none
PHP	Push processor status on stack	Implied	PHP	$08	1	none
PLA	Pull accumulator from stack	Implied	PLA	$68	1	N,Z
PLP	Pull processor status from stack	Implied	PLP	$28	1	All

Status Flag Change Group

CLC	Clear carry flag	Implied	CLC	$18	1	C
CLD	Clear decimal mode flag	Implied	CLD	$D8	1	D
CLI	Clear interrupt disable flag	Implied	CLI	$58	1	I
CLV	Clear overflow flag	Implied	CLV	$B8	1	V
SEC	Set carry flag	Implied	SEC	$38	1	C
SED	Set decimal mode flag	Implied	SED	$F8	1	D
SEI	Set interrupt disable flag	Implied	SEI	$78	1	I

Subroutine and Interrupt Group

JSR	Jump to a subroutine	Absolute	JSR $aaaa	$20	3	none
RTS	Return from subroutine	Implied	RTS	$60	1	none
BRK	Force an interrupt	Implied	BRK	$00	1	B, I
RTI	Return from Interrupt	Implied	RTI	$40	1	All
NOP	No Operation	Implied	NOP	$EA	1	none