

Reichenbach 1947

Simple present tense	John studies.
Present perfect	John has studied.
Simple past tense	John studied.
Past perfect	John had studied.
Simple future tense	John will study
Future perfect	John will have studied.

Speech time:	S
Event time:	E
Reference time:	R

Simple Present:	$S = E = R$	John studies now. (sounds strange without progressive aspect, ok in a stage direction in a play)
Simple Past	$(E = R) < S$	John studied yesterday. R = yesterday
Simple Future	$S < (E = R)$	John will study tomorrow R = tomorrow
Present Perfect	$E < (S = R)$	John has studied by now. R = now
Past Perfect	$E < R < S$	John had studied before the exam started. R = the time the exam started.
Future Perfect	$S < E < R$	John will have studied before the exam starts. R = the time the exam starts (in the future)

We can extract the meanings of tense and perfect aspect from these formulae:

Present tense	$S = R$	(includes simple present and present perfect)
Past tense	$R < S$	(includes simple past and past perfect)
Future tense	$S < R$	(includes simple future and future perfect)
Perfect	$E < R$	(Includes past perfect, present perfect and future perfect).