

## Practical scientific work

AY1  
AY6X

OUTLINE OF AY SCIENCE & TECHNOLOGY IN GENERAL	
AY1 Science & technology in general * Add to AY1 numbers & letters 2/9,A/V following AY; eg	Science & technology in general AY1
29A . Social aspects of science & technology	Science in general AY2
29U . . Standards & standardization (general)	Practical scientific work AY3 6
	Agents
	. . . Types of equipment & materials
	. . . Smart equipment & materials... AY3 PD
AY2 . Science in general	AY3 R . . Materials in general
* For Technology in general, see U.	RC . . . Materials handling
. . <i>Common subdivisions</i>	RP . . . <i>Types of materials</i>
* Add to AY2 numbers 2/9 from Auxiliary Schedule 1;	U . . Equipment, plant
eg	U3R . . . Materials of equipment
6C . . . Research (general)	U4 . . . <i>Parts, components of equipment</i>
7 . . . History of science	* As AY4.
7C . . . . <i>By place</i>	. . . <i>Types by various characteristics</i>
8 . . . . <i>By period</i>	U4T G . . . . Glassware...
8C . . . . . Ancient science	X . . . Laboratories, scientific stations
8F . . . . . Medieval science	AY4 . . . Instruments, instrumentation
8H . . . . . Modern science	37 . . . . . )Unwanted effects(... Interference...
92 . . . Biography of scientists	3B . . . . . <i>Operations on</i>
9A . . . Social aspects of science, science & society	3J . . . . . <i>Properties of</i>
9EP . . . . Science policy	3R . . . . . <i>Materials of</i>
9X . . . Science as a discipline	5 . . . . . <i>Parts, components</i>
A . . Philosophy of science	. . . . . <i>Parts by energy system</i>
M . . Mathematics in science... Statistics...	* Add from Technology U/V (notation provisional).
Y . . <i>Relations between sciences</i>	AC . . . . . Electrical & electronic components...
	D . . . . . Lasers...
	F . . . . . Optical components
	G . . . . . Thermal components... Mechanical...
	. . . . . <i>Parts by internal function</i>
	K . . . . . Switching devices... Transducers...
	N . . . . . Indicators... Recording devices...
	S . . . . . Input devices
	SL . . . . . )Transducers(... Sensors...
	T . . . . . Output devices
	TRY . . . . . Viewing & display devices...
	. . . . . <i>Types of instruments</i>
	AY5 4 . . . . . <i>By possession of a particular component</i>
	* As AY4.
	D . . . . . Laser-driven instruments
	HS . . . . . Fluidic instruments
	V . . . . . <i>Special to a given context</i>
	<i>Operations in scientific investigation</i>
	AY6 2 Investigative techniques
	. <i>Serving all investigative objectives</i>
	3 . . Data handling & processing... Control...
	. <i>By scale</i>
	7 . . Microtechniques...
	9 . Physical methods
	* As BA/BW; eg
	B . . Mechanical... Electro-magnetic...
	KQ . . Microwave & optical techniques... Laser...
	LWY . . Radiological techniques... X-rays...
	M . . Particle physics techniques
	R . . Bulk matter techniques
	RGH . . . Acoustic... Thermal...
	X . . Chemical techniques... Chemical analysis...
AY3 2 . . . Research operations (general)	
2C . . . . Methodology...	
4 . . . Theory	
* Alternative (not recommended) to locating after Practical science, at AY8 B.	
6 . . . Practical scientific work	
7 . . . . Unwanted effects... Safety & protection...	
. . . . Agents	
B . . . . . Equipment & materials (together)	
. . . . . <i>Operations on equipment &amp; materials</i>	
C . . . . . Handling techniques...	
F . . . . . <i>Processes in equipment &amp; materials</i>	
G . . . . . Deterioration...	
J . . . . . <i>Properties of equipment &amp; materials</i>	
JE . . . . . Reliability... Responsiveness...	
K . . . . . <i>By energy interactions &amp; forms</i>	
* Add to AY3 K letters A/V following B	
Physics; eg magnetic properties AY3 KJ.	
. . . . . <i>Parts</i>	
NB . . . . . Surfaces	
. . . . . <i>Types of equipment &amp; materials</i>	
PD . . . . . Smart equipment & materials...	

Science & technology in general AY1	Science & technology in general AY1
Science in general AY2	Science in general AY2
Operations & agents	General processes & properties AY9
. . . Investigative techniques AY6 2	. . . Non-linear... AY9 M
. . . Physical methods AY6 9	
. . . . Chemical techniques... Chemical analysis... AY6 X	
. . . . <i>By action on the phenomena investigated</i>	<i>Subjects of scientific enquiry</i>
AY7 3 . . . . Production techniques...	AYE . . . The Sciences (in aggregate)... Nature...
4 . . . . Observing... Detecting... Indicating...	. . . <i>By phenomena investigated</i>
6 . . . . Measurement... Metric system... SI...	AYF . . . General phenomena
A . . . . Testing & evaluation... Standards...	* Add from Class 3 Phenomena.
F . . . . Simulation, modelling (simulation)	X . . . Systems, communication & control, complex phenomena
GY . . . . Visualizing & imaging (together)	AYG . . . Systems, systemology
I . . . . . Imaging... Magnification, amplification...	3D . . . . General systems theory
J . . . . . Microscopy... Holography... Radiography...	C . . . . Systems behaviour... State of system...
M . . . . . Spectroscopy... Spectrometry...	AYH . . . . . Variability... Change of state...
P . . . . . Tracer techniques...	W . . . . . Instability... Chaos...
. . . <i>Research by persons as agents</i>	AYIH . . . . . Adaptive behaviour...
WD . . . Individual research... Group...	. . . . <i>Subsystems</i>
. . . <i>Research by environment</i>	AYJ . . . . . Structure of systems... Networks...
WL . . . Special environments	. . . . <i>Types of systems</i>
X . . . . Vacuums (research environments)	AYK B . . . . . Abstract... Stochastic... Open..
XE . . . . Subsurface... Submarine... Space...	V . . . . . Continuous... Discontinuous...
XN . . Non-experimental research	AYL R . . . . . Linear... Non-linear... Reactive...
XU . . . Surveys... Expeditions... Fieldwork...	AYN J . . . . . Reactive...
AY8 2 . . Experimental research (general)	MS . . . . . Dynamic... Stable...
2D . . . Design of experiments	P . . . . . Adaptive...
. . . <i>By broad objective</i>	AYP . . . . . Communication & control (systems theory)
5 . . . Fundamental research... Oriented...	N . . . . . Information theory
B . . Scientific theory... theoretical models...	AYQ . . . . . Cybernetics...
* Alternative (not recommended) is AY3 4.	AYS . . . . . Artificial intelligence
C . . . Hypotheses... Concept formation...	* Alternative (not recommended) to locating under computer science 8.
D . . . Theories special to a subject	AYY . . Physical sciences
AY9 <i>General processes &amp; properties</i>	
* 9 is reserved here for use as a facet indicator to introduce the concepts below under the individual sciences. The classes AY9 2/AY9 Y are not used on their at this position.	
2D . . Distribution... Variation...	
4 . . Conditions & parameters	
4C . . Critical point... Volume conditions...	
4J . . Pressure conditions...	
B . . Dimension...	
C . . Time... Frequency...	
D . . Space... Mean free path...	
DF . . . One-dimension... Distance...	
DP . . . Two dimensions...	
G . . Systems characteristics	
* As AYG/AYS; eg	
KV . . Continuous... Non-continuous...	
M . . Non-linear...	