

Figure 4: 8th Grade Core Science Topics. Common topics for 8th grade science are shown here just as they were in Figure 3 for 4th grade. Here the "world core" is more extensive than the US core and the match is not good. US teachers indicate devoting attention to even more topics than are in the official curricula and textbook core. Compared both to the science "world core" and to the US mathematics cores, comparatively few topics are covered in 8th grade science.

World Core	US Core	US Teacher Core ¹
Rocks,Soil		
Weather,Climate		
Plants,Fungi	Plants,Fungi	Earth in the Universe
Animals		
Organs,Tissues*	Organs,Tissues	
Energy Handling		
Sensing,Responding		
Life Cycles		
Reproduction		
Interdependence of Life	Interdependence of Life	
Human Disease		
Classification of Matter		Types & Properties of Matter
Physical Properties of Matter	Physical Properties of Matter	Types & Properties of Matter
Chemical Properties of Matter	Chemical Properties of Matter	Types & Properties of Matter
Atoms, Ions, Molecules		Structure of Matter
Energy Types, Sources, and Conversions	Energy Types, Sources, and Conversions	Energy Types, Sources, and Conversions
Heat & Temperature		Energy Processes
Light		
Electricity	Electricity	Energy Processes
		Physical Changes
Explanations of Chemical Changes		General Chemical Changes
Types of Forces		
	Time,Space, Motion	
Science App. in Math, Tech.		Science, Technology, and Society
Influence of Science, Tech. on Society		Science, Technology, and Society
Pollution	Pollution	Environmental and Resource Issues
Cons. of Land, Water, Sea Resources		Environmental and Resource Issues
Cons. of Material & energy Res.		Environmental and Resource Issues
	Nature of Scientific Knowledge	Nature of Science

¹ Some of the framework topics were aggregated together when presented to teachers and were at a different level of specificity than presented here in the world core; therefore, the numbers in this column may represent teaching of the larger category which includes the specific topic listed here.