

**Field 203 – Middle Grades (5-8) Science**  
**Alignment of Test Framework Objectives with State Standards**

Illinois Licensure Testing System Framework Objectives for Middle Grades (5-8) Science	<a href="#">State Board of Education Rules-Title 23 of the Illinois Administrative Code-27.140</a>	<a href="#">State Board of Education Rules-Title 23 of the Illinois Administrative Code 21.120</a>
<b>Subarea I: Scientific and Engineering Practices and Crosscutting Concepts</b>		
<b>0001</b> Understand scientific practices.	a.1.A-B; a.2.A-B; a.2.D; i.1.C-D; i.2.C-D; n.2.A	
<b>0002</b> Understand engineering practices and design.	b.1.A-B; b.2.A-C	
<b>0003</b> Understand crosscutting concepts.	k.1.B	
<b>Subarea II: Physical Science</b>		
<b>0004</b> Understand the structure and properties of matter and chemical reactions.	e.1.A; e.2.A-B; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0005</b> Understand forces and interactions.	f.1.A-C; f.2.A-C; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0006</b> Understand energy.	e.1.B; e.1.D; e.2.B-C; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0007</b> Understand waves and electromagnetic radiation and their applications.	f.1.D; f.2.D; e.2.E; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>Subarea III: Life Science</b>		
<b>0008</b> Understand structures and functions of organisms.	d.1.A; d.1.C-D; d.2.A; d.2.C; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0009</b> Understand ecosystems.	d.1.A,C-D; d.2.A-B; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0010</b> Understand heredity.	c.1.B; c.2.A; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	

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<b>0011</b> Understand biological evolution.	c.2.C; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>Subarea IV: Earth and Space Science</b>		
<b>0012</b> Understand Earth's place in the universe.	h.1.A-B; h.2.A; h.2.C; g.1.C; g.2.C; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0013</b> Understand Earth's systems.	g.1.D; g.2.B; g.2.D; l.2.B; m.1.A-C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>0014</b> Understand Earth and human activity.	g.1.A-C; g.2.A-B; l.2.B; m.1.A- C; m.2.A-D; o.1.A-B; o.2.A; p.1.B; p.2.A; p.2.B-D; q.1.A	
<b>Subarea V: Disciplinary Literacy in Science</b>		
<b>0015</b> Apply knowledge of foundations of research-based disciplinary literacy instruction and assessment.		a.1-5; b.1.A-C; b.2.A; c.1.A; d.1-6; e.1-6; f.1-5; g.1-4
<b>0016</b> Apply knowledge of academic-language and vocabulary development to support students' disciplinary literacy development in the science classroom.		b.2.B-D; c.1.B-N
<b>0017</b> Apply knowledge of reading comprehension to support students' disciplinary literacy development in the science classroom.		c.2.A-J, L; c.3.A-D
<b>0018</b> Apply knowledge of the development of writing, listening, and speaking skills to support students' disciplinary literacy development in the science classroom.		c.2.A-J, L; c.3.A-D