

ACS "It's Elemental" Chemistry Experiments  
Ohio Science Standards Alignment

Indicators for K - 5<sup>th</sup> Grades

<b>Demonstration/Sign In</b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1, 3, 4		4	1, 3	
Scientific Inquiry	1, 3, 4	1, 3, 8	4, 5, 6	4, 6	3	3
Scientific Ways of Knowing	1	2		3	1	2, 4, 5
<b>Exp. 1—magnetism</b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1, 4, 5	2	1, 3, 4	3, 5	6
Scientific Inquiry	1, 3, 4, 7	1, 3, 6, 8	4, 5, 6, 7	4, 6	3	3
Scientific Ways of Knowing	1	2		3	1	2, 4, 5
<b>Exp. 2 –copper plating</b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1, 3, 4, 5		3	1, 2, 3	5
Scientific Inquiry	1, 3, 4, 7	1, 3, 6, 8	4, 5, 6, 7	4, 6	3	3
Scientific Ways of Knowing	1	2		3	1	2, 4, 5
<b>Exp. 3- silver deposition</b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1, 3, 4, 5		1, 3, 4	1, 2, 3	5
Scientific Inquiry	1, 3, 4, 7	1, 3, 6, 8	4, 5, 6, 7	4, 6	3	3
Scientific Ways of Knowing	1	2		3	1	2, 4, 5

<b>Exp. 4 Starch testing</b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1, 3, 4, 5		1, 3, 4	2, 3	
Scientific Inquiry	1, 3, 4, 7	1, 3, 6, 8	4, 5, 6, 7	4, 6	3	3
Scientific Ways of Knowing	1	2		3	1	2, 4, 5
<b>Exp. 5-H<sub>2</sub>O<sub>2</sub> decomp</b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1,3, 4, 5, 9		1, 3, 4	2, 3, 5	1
Scientific Inquiry	1, 3, 4,7	1, 3, 6, 8	4, 5, 6, 7	4, 6	3	3
Scientific Ways of Knowing	1	2		3	1	2, 4, 5
<b>Exp. 6-Fate of CaCO<sub>3</sub></b>	<b>K</b>	<b>1<sup>st</sup> Grade</b>	<b>2<sup>nd</sup> Grade</b>	<b>3<sup>rd</sup> Grade</b>	<b>4<sup>th</sup> Grade</b>	<b>5<sup>th</sup> Grade</b>
Physical Science	2, 3	1, 3, 4, 5		1, 3, 4	1, 2, 3, 4	
Scientific Inquiry	1, 3, 4, 7	1,3, 6, 8	4, 5, 6, 7	4, 6	3	3, 4,
Scientific Ways of Knowing	1	2		3	1	2, 4, 5

Indicators for 6-8<sup>th</sup> Grades

<b>Demonstration/Sign In</b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	1, 3, 4	1	
Scientific Inquiry	2	4	1
Scientific Ways of Knowing	3, 5		1
<b>Exp. 1-Magnetism</b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	1, 3, 4	3	5
Scientific Inquiry	2	4	1
Scientific Ways of Knowing	3		1

<b>Exp. 2-Copper plating</b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	2	1, 3	
Scientific Inquiry	2	4	4
Scientific Ways of Knowing	3		1
<b>Exp. 3 Silver deposition</b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	2	1, 3	
Scientific Inquiry	2	4	1
Scientific Ways of Knowing	3		1
<b>Exp. 4 Starch testing</b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	2	1	
Scientific Inquiry	2	4	1
Scientific Ways of Knowing	3		1
<b>Exp. 5 -H<sub>2</sub>O<sub>2</sub> decomp</b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	2	1, 3, 4	
Scientific Inquiry	2	4	1
Scientific Ways of Knowing	3		1
<b>Exp. 6 –Fate of CaCO<sub>3</sub></b>	<b>6<sup>th</sup> Grade</b>	<b>7<sup>th</sup> Grade</b>	<b>8<sup>th</sup> Grade</b>
Physical Science	2		
Scientific Inquiry	2	1, 4	1
Scientific Ways of Knowing	3		1

Indicators for 9th-12<sup>th</sup> Grades

<b>Demonstration/Sign In</b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	1, 4, 9, 26, 27			14,15
Scientific Inquiry	2, 6	1, 4	5	3
Scientific Ways of Knowing	3, 5, 7	3	7	3
<b>Exp. 1 -magnetism</b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	4, 7, 9			
Scientific Inquiry	1, 2, 3, 6	1, 4	5	3
Scientific Ways of Knowing	5	3	7	3
<b>Exp. 2-copper plating</b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	4, 5, 7, 9			
Scientific Inquiry	1, 2, 5, 6	1, 4	5	3
Scientific Ways of Knowing	3, 5	3	7	3
<b>Exp. 3-Silver deposition</b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	4, 5, 7, 9			
Scientific Inquiry	1, 2, 3, 6	1, 4	5	3
Scientific Ways of Knowing	3, 5	3	7	3
<b>Exp. 4 – Starch testing</b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	4, 7, 9			
Scientific Inquiry	1, 2, 3, 6	1, 4	5	3
Scientific Ways of Knowing	3, 5	3	7	3

<b>Exp. 5-H<sub>2</sub>O<sub>2</sub> decomp</b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	4, 7, 9, 16			
Scientific Inquiry	1, 2, 3, 6	1, 4	5	3
Scientific Ways of Knowing	3, 5	3	7	3
<b>Exp. 6—Fate of CaCO<sub>3</sub></b>	<b>9<sup>th</sup> Grade</b>	<b>10<sup>th</sup> Grade</b>	<b>11<sup>th</sup> Grade</b>	<b>12<sup>th</sup> Grade</b>
Physical Science	4, 5, 9			1
Scientific Inquiry	1, 2, 3, 6	1, 4	5	3
Scientific Ways of Knowing	3, 5	3	7	3