

# Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations

NUMBERS				
PLACE VALUE AND THE BASE TEN SYSTEM				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.1.A Count by tens or hundreds forward and backward from 1 to 1,000, starting at any number.	Unit 6, page 720 (Home Connection 26)	September Hundreds Grid October Hundreds Grid March Hundreds Grid April Hundreds Grid	Set A5 Number & Operations: Multi-Digit Addition & Subtraction, Activities 2 & 3 Set A7 Number & Operations: Numbers to 1,000 on a Line or Grid, Activities 1 & 2 and Independent Worksheets 1 & 2 Bridges Practice Book, pages 15, 117	Informal Bridges Practice Book, page 117
2.1.B Connect place value models with their numerical equivalents to 1,000.	Unit 5, Sessions 2–4, 6–8, 13, 15–16, 18, 21, 24, 31–32 Unit 5, page 497 (Home Connection 17) Unit 6, sessions 4–7, 9 Unit 7, Sessions 14, 18	October Daily Number Chart November Daily Number Chart December Daily Number Chart January Base 10 Bank March Coin Collector April Daily Number Chart May Daily Number Chart	Set A4 Number & Operations: Place Value, Activities 1–6 and Independent Worksheets 1 & 2 Set A7 Number & Operations: Numbers to 1,000 on a Line or Grid, Activities 1 & 2 Bridges Practice Book, pages 29, 48, 60, 67, 72, 87, 89, 91, 93, 95, 101, 107, 109, 113	Informal Unit 5, page 555 (Observation Checklist)
				Formal Unit 6, Session 13 (Unit Post-Assessment) Number Corner Student Book, pages 9, 39, and 56 (Check-Ups 1–3)
2.1.C Identify the ones, tens, and hundreds place in a number and the digits occupying them.	Unit 5, Sessions 2, 16 Unit 5, pages 484–485 (Assessment Tips) Unit 5, pages 569–571 (Work Place 8F) Unit 5, page 578 (Home Connection 20)	October Daily Number Chart November Daily Number Chart December Daily Number Chart April Daily Number Chart May Daily Number Chart	Set A4 Number & Operations: Place Value, Activities 1–6 and Independent Worksheets 1 & 2 Bridges Practice Book, pages 89, 91, 99, 117, 127, 133	Formal Unit 1, pages 55–61 (Individual Interview) Unit 5, Sessions 1 & 35 (Unit Pre- and Post-Assessments)
2.1.D Write three-digit numbers in expanded form.	Unit 5, Sessions 16, 25 Unit 5, page 578 (Home Connection 20)	October Daily Number Chart November Daily Number Chart December Daily Number Chart April Daily Number Chart May Daily Number Chart	Set A4 Number & Operations: Place Value, Activities 4, 5 & 6 and Independent Worksheet 1 Bridges Practice Book, pages 103, 139	Informal Bridges Practice Book, pages 103, 139
2.1.E Group three-digit numbers into hundreds, tens, and ones in more than one way.	Unit 5, Sessions 16, 25 Unit 5, page 578 (Home Connection 20)	October Daily Number Chart November Daily Number Chart December Daily Number Chart April Daily Number Chart May Daily Number Chart	Set A5 Number & Operations: Multi-Digit Addition & Subtraction, Activity 1 and Independent Worksheet 1 Bridges Practice Book, pages 89, 91	Informal Bridges Practice Book, pages 89, 91

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

NUMBERS				
PLACE VALUE AND THE BASE TEN SYSTEM				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.1.F Compare and order numbers from 0 to 1,000.	Unit 5, Sessions 2–3, 15–16, 18, 20–21 Unit 5, pg. 497 (Home Connection 17) Unit 5, page 578 (Home Connection 20) Unit 6, page 720 (Home Connection 26)	September–May Hundreds Grid September–May Daily Number Chart	Set A4 Number & Operations: Place Value, Activities 1–5 Set A7 Number & Operations: Numbers to 1,000 on a Line or Grid, Activities 1 & 2 and Independent Worksheets 1 & 2 Bridges Practice Book, pages 7, 43, 48, 72, 104, 127, 140	Informal Bridges Practice Book, pages 104, 127, 140

OPERATIONS, GEOMETRY/MEASUREMENT, ALGEBRA				
ADDITION AND SUBTRACTION				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.2.A Quickly recall basic addition facts and related subtraction facts to 20.	Unit 3, pages 233–237, Work Places 4B, 4C, 4D Unit 5, Session 24 Technology Connections Book, pages 14–15, 16–17, and 26–27 (Technology Connections 4, 5, 10)	October Magnetic Tile November Hundreds Grid January–March, May Workout Wheel January–April Base 10 Bank Number Corner Student Book, pages 1, 5, 7, 12, 28–31, 47–48	Set A1 Number & Operations: Addition & Subtraction, Activities 2, 3 & 4 Bridges Practice Book, pages 3, 5, 9, 11, 13, 14, 17, 23, 27, 31, 33, 35, 41, 45, 49, 51, 53, 55, 56, 57, 59, 63, 64, 69, 71, 73, 77, 79, 85	Informal Unit 3, pages 229–230 (Observation Checklist) Bridges Practice Book, pages 37, 41, 45, 49, 55, 57, 59, 69, 111  Formal Unit 1, pages 55–61 (Ind. Interview) Unit 3, Sessions 3, 6, 23, 24 (Unit 3 Pre- and Post-Assessments) Number Corner Student Book, pages 9, 36, 55–56, and 85–86 (Check-Ups 1–4)
2.2.B Solve addition and subtraction word problems that involve joining, separation, and comparing and verify the solution.	Unit 2, Sessions 7, 9–12 Unit 2, page 182 (Home Connection 7) Unit 3, Sessions 1–2, 4–5, 8, 10, 14–16, 19–22 Unit 3, pages 223, 276 (Home Connections 8 & 10) Unit 5, Sessions 3, 6–10 Unit 7, Sessions 15–16, 20–23		Bridges Practice Book, pages 2, 4, 6, 8, 10, 12, 14, 16, 18, 22, 26, 28, 32, 34, 36, 37, 38, 40, 42, 46, 50, 52, 54, 56, 62, 66, 75, 88, 92, 94, 96, 100, 102, 104, 112, 120, 123, 130, 132, 134, 136, 140	Informal Bridges Practice Book, pages 2, 4, 6, 8, 10, 12, 14, 16, 18, 22, 26, 28, 32, 34, 36, 37, 38, 40, 42, 46, 50, 52, 54, 56, 62, 66, 75, 88, 92, 94, 96, 100, 102, 104, 112, 120, 123, 130, 132, 134, 136, 140

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

OPERATIONS, GEOMETRY/MEASUREMENT, ALGEBRA				
ADDITION AND SUBTRACTION				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.2.C Add and subtract two-digit numbers efficiently and accurately using a procedure that works with all two-digit numbers and explain why the procedure works.	Unit 4, pages 407 & 458 (Home Connections 14 & 16) Unit 5, Session 23 Unit 5, pages 497 & 517 (Home Connections 17 & 18) Unit 6, page 720 (Home Connection 26) Unit 7, Sessions 1, 9–10, 15–16, 20–23 Unit 7, pages 804–808 (Work Places 10E and 10F) Technology Connections Book, pages 22–23 (Technology Connection 8)	November Hundreds Grid & Daily Number Chart December Hundreds Grid & Daily Number Chart January Hundreds Grid January–April Base 10 Bank April Daily Number Chart May Daily Number Chart May Coin Collector Number Corner Student Book, pages 32–33, 40–41, 52, 60–61, 69–70, 79–80, 82–84	Set A4 Number & Operations: Place Value, Activity 4 Set A5 Number & Operations: Multi-Digit Addition & Subtraction, Activity 4 Bridges Practice Book, pages 101, 105, 107, 108, 113, 119	Informal Unit 5, page 555 (Observation Checklist) Unit 5, page 560 (Instructional Considerations for Handfuls of Treasure) Bridges Practice Book, pages 129, 141  Formal Unit 5, Sessions 1 & 35 (Unit Pre- and Post-Assessments) Unit 7, Sessions 2 & 29 (Unit Pre- and Post- Assessments) Number Corner Student Book, pages 38 & 58 (Check-Ups 2 & 3)
2.2.D Add and subtract two-digit numbers mentally and explain the strategies used.	Unit 4, pages 407 & 458 (Home Connections 14 & 16) Unit 5, Sessions 1, 22–23, 25 Unit 6, page 720 (Home Connection 27) Unit 7, Sessions 1, 18–19	January–April Base 10 Bank May Coin Collector Number Corner Student Book, pages 3–4, 6, 8, 26, 42–45, 71	Bridges Practice Book, pages 59, 71, 76, 80, 81, 92, 97, 99, 117	Informal Bridges Practice Book, pages 97, 99
2.2.E Estimate sums and differences.	Unit 5, Sessions 1, 22–23, 28 Unit 7, Session 9	November Hundreds Grid January Base 10 Bank February Base 10 Bank March Base 10 Bank April Base 10 Bank May Coin Collector	Bridges Practice Book, pages 109, 110, 144	Informal Bridges Practice Book, pages 109, 110  Formal Unit 5, Sessions 1 & 32 (Unit Pre- and Post Assessments)
2.2.F Create and state a rule for patterns that can be generated by addition and extend the pattern.	Unit 1, Sessions 6, 9, 11–12, 16, 22 Unit 1, pages 40–41 (Work Place 2A) Unit 1, pages 89–97 (Work Places 3A, 3C, and 3F) Unit 3, Session 12 Technology Connections Book, pages 10–11 (Technology Connection 2)	September–May Calendar Grid November Magnetic Tile May Magnetic Tile Number Corner Student Book, pages 1, 5, 11, 39, 55, 59, 81	Bridges Practice Book, pages 7, 9, 13, 19, 21, 29, 43, 49, 50, 143	Informal Unit 1, Sessions 11, 12, 21 (Work Samples) Bridges Practice Book, pages 49, 50, 143  Formal Unit 1, Sessions 1 & 23 (Unit 1 Pre- and Post-Assessment) Number Corner Student Book, pages 55 & 85 (Check-Ups 3 & 4)

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

OPERATIONS, GEOMETRY/MEASUREMENT, ALGEBRA				
ADDITION AND SUBTRACTION				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.2.G Solve equations in which the unknown number appears in a variety of positions.			Set A2 Number & Operations: Solving Equations, Activities 1 & 2 and Independent Worksheets 1 & 2 Bridges Practice Book, pages 11, 13, 17, 31, 35, 49, 75, 85, 86, 121	Informal Bridges Practice Book, pages 49, 75, 85, 86, 121
2.2.H Name each standard U.S. coin, write its value using the \$ sign and the ¢ sign, and name combinations of other coins with the same total value.	Unit 7, Session 1	September, October, and May Coin Collector	Set A6 Number & Operations: Money, Activities 1 & 2 and Independent Worksheet 1 Bridges Practice Book, pages 68, 115	Informal Bridges Practice Book, pages 68, 115
2.2.I Determine the value of a collection of coins totaling less than \$1.00.	Unit 1, Session 7 Unit 1, pages 33 & 111 (Home Connections 1 & 4) Unit 1, pages 42–43 (Work Place 2B) Unit 5, Sessions 12, 14	September Coin Collector October Coin Collector February Coin Collector March Coin Collector	Set A6 Number & Operations: Money, Activities 1 & 2 and Independent Worksheet 1 Bridges Practice Book, pages 15, 25, 68, 76, 87, 90, 115, 144	Informal Unit 5, page 555 (Observation Checklist) Bridges Practice Book, pages 15, 25, 68, 76, 87, 90, 115, 144
				Formal Number Corner Student Book, pages 10, 38 & 88 (Check-Ups 1, 2, & 4) Unit 5, Sessions 1 & 35 (Unit 5 Pre- and Post-Tests)

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

GEOOMETRY/MEASUREMENT				
MEASUREMENT				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.3.A Identify objects that represent standard units and use them to measure length.	Unit 6, Sessions 4–7	November Daily Measure	Set D2 Measurement: Length in U.S. Customary Units, Activities 1, 2, 3 & 4 Set D3 Measurement: Length in Metric Units, Activities 1, 2 & 3	
2.3.B Estimate length using customary and metric units.	Unit 2, pages 161 & 182 (Home Connections 6 & 7) Unit 7, Sessions 3, 9 Unit 7, pages 752–753 (Home Connection 27) Unit 7, pages 807–808 (Work Place 10F)		Set D2 Measurement: Length in U.S. Customary Units, Activities 4, 5, 6, 7 & 8 Set D3 Measurement: Length in Metric Units, Activities 1, 2 & 3 Bridges Practice Book, pages 24, 30, 124, 126, 128	Informal Bridges Practice Book, pages 24, 30, 124, 126, 128
				Formal Number Corner Student Book, pages 87 (Check-Up 4)
2.3.C Measure length to the nearest whole unit in both metric and U.S. customary units.	Unit 2, pages 161 & 182 (Home Connections 6 & 7) Unit 7, Sessions 3, 9 Unit 7, pages 752–753 (Home Connection 27) Unit 7, pages 807–808 (Work Place 10F)		Set D2 Measurement: Length in U.S. Customary Units, Activities 5, 6, 7 & 8 Set D3 Measurement: Length in Metric Units, Activities 1, 2 & 3 Bridges Practice Book, pages 20, 24, 30, 44, 124, 126	Informal Bridges Practice Book, pages 20, 24, 30, 44, 124, 126
				Formal Number Corner Student Book, page 37 (Check-Up 2)
2.3.D Describe the relative size among minutes, hours, days, weeks, months, and years.		September Bean Clock November Calendar Grid, Session 3 February Calendar Grid, Sessions 2 & 3 April Calendar Grid, Sessions 2 & 3	Set D1 Measurement: Duration, Activities 1, 2 & 3 Set D5 Measurement: Telling Time, Worksheet 5 Bridges Practice Book, pages 131, 135	
2.3.E Use both analog and digital clocks to tell time to the minute.	Unit 1, Session 17 Unit 1, pages 90–92 (Work Place 3B)	October Bean Clock December Bean Clock March Bean Clock April Bean Clock May Bean Clock	Set D5 Measurement: Telling Time, Activities 1 & 2 and Independent Worksheets 1, 2 & 4 Bridges Practice Book, pages 39, 90, 97, 103, 115, 135, 142	Formal Number Corner Student Book, pages 10, 37 & 87 (Check-Ups 1, 2 & 4)

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

NUMBERS, OPERATIONS, GEOMETRY/MEASUREMENT, DATA/STATISTICS/PROBABILITY				
ADDITIONAL KEY CONTENT				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.4.A Solve problems involving properties of two- and three-dimensional figures.	Unit 1, Sessions 19–21 Unit 3, Session 9 Unit 4, Sessions 1–19	September Magnetic Tile November Magnetic Tile December Calendar Grid May Calendar Grid	Bridges Practice Book, pages 61, 65	Informal Unit 4, Session 8 (Work Sample)
				Formal Unit 4, Sessions 1 & 21 (Unit 4 Pre- and Post-Assessments)
2.4.B Collect, organize, represent, and interpret data in bar graphs and picture graphs.	Unit 3, Sessions 3–4, 6, 16 Unit 5, Session 19–20, 27 Unit 6, Session 10 Unit 7, Sessions 4, 6–8, 13 17, 26–28 Unit 7, page 819 (Home Connection 29) Unit 7, pages 795–797 (Work Place 10A) Technology Connection 10 (Technology Connections Book, pages 26–27)	November Calendar Grid December Magnetic Tile January Magnetic Tile February Calendar Grid April Calendar Grid	Bridges Practice Book, pages 25, 106, 112, 123	Informal Bridges Practice Book, pages 106, 112, 123
				Formal Unit 6, Session 13 (Unit 6 Post-Assessment) Unit 7, Sessions 1 & 29 (Unit 7 Pre- and Post-Assessments)
2.4.C Model and describe multiplication situations in which sets of equal size are joined.	Unit 1, Sessions 11–12, 20 Unit 2, Sessions 7, 10–12 Unit 3, Session 10 Unit 4, Sessions 24–25 Unit 7, Session 3 Unit 7, page 859 (Home Connection 31) Technology Connections Book, pages 24–25 (Technology Connection 9)	September Magnetic Tile November Magnetic Tile May Magnetic Tile May Workout Wheel	Bridges Practice Book, pages 9, 19, 32, 40, 78, 80, 82, 98	Informal Unit 4, Sessions 24 & 25 (Work Samples)
2.4.D Model and describe division situations in which sets are separated into equal parts.	Unit 1, Session 12 Unit 2, Sessions 1, 7, 10–12 Unit 4, Sessions 24–25 Unit 5, Session 18 Unit 7, Sessions 1, 5, 16 Unit 7, pages 797–798 (Work Place 10B)	September–November, April–May Magnetic Tile	Bridges Practice Book, pages 74, 88	

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

<b>NUMBERS, OPERATIONS, GEOMETRY/MEASUREMENT, DATA/STATISTICS/PROBABILITY</b>				
<b>ADDITIONAL KEY CONTENT</b>				
<b>WA Performance Expectations</b>	<b>Bridges</b>	<b>Number Corner</b>	<b>Bridges Supplement</b>	<b>Assessments</b>
2.4.E Interpret a fraction as a number of equal parts of a whole or a set.	Unit 1, Session 19 Unit 4, Sessions 9, 11, 14, 16–17 Unit 7, Session 5–7 Unit 7, pages 793–808 (Work Places 10B, 10C & 10D) Unit 7, page 787 (Home Connection 28)	December Magnetic Tile January Calendar Grid January Magnetic Tile March Calendar Grid	Bridges Practice Book, pages 71, 83, 84, 125, 137, 138	Informal Bridges Practice Book, pages 125, 137, 138

<b>REASONING, PROBLEM SOLVING, AND COMMUNICATION</b>				
<b>WA Performance Expectations</b>	<b>Bridges</b>	<b>Number Corner</b>	<b>Bridges Supplement</b>	<b>Assessments</b>
2.5.A Identify question(s) asked in a problem and any other questions that need to be answered in order to solve the problem.	Unit 2, Sessions 1, 7–9, 11–12 Unit 4, Sessions 4, 6, 15, 22 Unit 5, Sessions 3, 5, 6–10, 14 Unit 6, Sessions 2–3, 5–7, 10 Unit 7, Sessions 1, 6, 8, 15–16, 19–23		Set A7 Number & Operations, Numbers to 1,000, Activity 2 Set D1 Measurement, Duration, Activities 4, 5 & 6 Bridges Practice Book, pages 32, 40	Informal Bridges Practice Book, pages 32, 40
2.5.B Identify the given information that can be used to solve a problem.	Unit 1, Sessions 2, 6, 9, 16, 22 Unit 2, Sessions 1, 7, 9, 11–12 Unit 4, Sessions 4, 19–20 Unit 5, Sessions 3, 5, 6–10 Unit 6, Sessions 11–12 Unit 7, Sessions 6, 8, 15–16, 20–23	September–October Calendar Grid December–January Calendar Grid March Calendar Grid May Calendar Grid	Set A7 Number & Operations, Numbers to 1,000, Activity 2 Set D1 Measurement, Duration, Activities 4, 5 & 6 Bridges Practice Book, pages 32, 40, 56, 62, 86, 102	Informal Bridges Practice Book, pages 32, 40, 56, 62, 86, 102
2.5.C Recognize when additional information is required to solve a problem.	Unit 1, Sessions 2, 6, 9, 16, 22 Unit 2, Session 9 Unit 4, Sessions 19–20 Unit 5, Sessions 14, 27–28 Unit 7, Sessions 6, 8, 19 Unit 7, pages 816–818 (Discussion about Pick & Peek Results)	September–October Calendar Grid December–January Calendar Grid March Calendar Grid May Calendar Grid	Set A7 Number & Operations, Numbers to 1,000, Activity 2 Set D1 Measurement, Duration, Activities 4, 5 & 6 Bridges Practice Book, page 120	

## Bridges Grade 2 Correlations to Washington Mathematics Performance Expectations (cont.)

REASONING, PROBLEM SOLVING, AND COMMUNICATION				
WA Performance Expectations	Bridges	Number Corner	Bridges Supplement	Assessments
2.5.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem.	Unit 2, Sessions 1, 7, 9–11 Unit 4, Sessions 4, 6, 8–9, 14–15, 22, 25 Unit 5, Sessions 3, 6–10, 13, 15–16, 18 Unit 5, Sessions 3, 7, 9–10 Unit 7, Sessions 1, 15–16, 20–23		Set D3 Measurement: Length in Metric Units, Activities 2 & 3 Bridges Practice Book, pages 114, 116	Informal Unit 2, Session 10 (Work Sample, see pages 171–173) Unit 7, Session 21 (Work Sample, see pages 852–854) Bridges Practice Book, pages 114, 116
2.5.E Identify the answer(s) to the question(s) in a problem.	Unit 1, Sessions 2, 6, 9, 16, 22 Unit 2, Sessions 1, 7, 9–11 Unit 4, Sessions 4, 6, 8–9, 19–20 Unit 5, Sessions 3, 6–10, 13, 15–16, 18 Unit 7, Sessions 1, 15–16, 20–23		Set A7 Number & Operations, Numbers to 1,000, Activity 2 Set D1 Measurement, Duration, Activities 4, 5 & 6 Bridges Practice Book, pages 2, 4, 6, 8, 10, 12, 14, 16, 18, 22, 26, 28, 32, 34, 36, 40, 42, 46, 50, 52, 54, 56, 62, 70, 74, 78, 82, 84, 88, 92, 94, 96, 100, 102, 114, 116, 120, 122, 124, 134, 136	Informal Bridges Practice Book, pages 2, 4, 6, 8, 10, 12, 14, 16, 18, 22, 26, 28, 32, 34, 36, 40, 42, 46, 50, 52, 54, 56, 62, 70, 74, 78, 82, 84, 88, 92, 94, 96, 100, 102, 114, 116, 120, 122, 124, 134, 136
2.5.F Describe how a problem was solved.	Unit 2, Sessions 1, 7, 9–11 Unit 3, Sessions 1–2 Unit 4, Sessions 4, 6, 8–9, 14–15, 22 Unit 5, Sessions 3, 6–11 Unit 6, Sessions 12–13 Unit 7, Sessions 6, 15–16, 20–23	October Calendar Grid November Magnetic Tile November Daily Measure November Hundreds Grid January Calendar Grid January Base 10 Bank March Base 10 Bank	Set D3 Measurement: Length in Metric Units, Activities 2 & 3 Bridges Practice Book, pages 2, 4, 6, 8, 10, 12, 14, 16, 18, 22, 26, 28, 32, 34, 36, 40, 42, 46, 50, 52, 54, 56, 62, 70, 74, 78, 82, 84, 88, 92, 94, 96, 98, 100, 102, 114, 116, 120, 122, 124, 132, 134, 136	Informal Unit 2, Session 10 (Work Sample, see pages 171–173) Unit 2, Session 13 (Student Reflection) Unit 5, Session 9 (Student Reflection) Unit 7 (Student Reflection, Work Sample)
				Formal Unit 5, Session 11 (Assessment)
2.5.G Determine whether a solution to a problem is reasonable.	Unit 2, Sessions 1, 7, 9–11 Unit 4, Session 22 Unit 5, Sessions 3, 6–11 Unit 6, Sessions 12–13 Unit 7, Sessions 6, 15, 20–21	October Calendar Grid November Magnetic Tile November Daily Measure November Hundreds Grid January Calendar Grid January Base 10 Bank March Base 10 Bank	Set D2 Measurement: Length in U.S. Customary Units, Activities 1, 2, 3, 5 & 8 Bridges Practice Book, pages 76, 109, 110, 144	Informal Bridges Practice Book, pages 76, 109, 110, 144