

Iowa Test of Basic Skills – Math
Level 9, 10, 14; Grade 3, 4, 8
Growing in the Garden and Where We Live

Content/Process Skills	Question Numbers	Lessons (Lessons highlighted in bold print represent favorite picks.)
Number Properties and operations (estimation)	Level 9 1-3, 9, 6, 15, 19, 23, 12, 25, 26, 29, 31, 27, 28, 30 Level 10 14,15, 20, 28, 4, 19, 8, 12, 18, 1, 16, 30, 32, 33, 35, 29, 34, 31, 36 Level 14 4, 7, 32, 34, 5, 9, 10, 23, 37, 19, 25, 2, 33, 35,12, 39, 40, 44, 38, 43, 41, 42, 45-49	<p><u>Growing in the Garden</u> Project Discovery; Gardeners and Farmers; Start with Seeds; Johnny Appleseed; Building a Food Maze; My Special Garden; A Dream Garden; Be Loyal to the Soil; Smart Shopping; Salad Garden; Rocks to Ice Cream; Garden of Good Eatin’; Grow a Butterfly Garden; Thomas Jefferson; Garden Math; Germination; Windowsill Herb Garden; Value-added Tomatoes; Salsa and Herb Gardens</p> <p><u>Where We Live</u> My Favorite Food; Get Down, Get Dirty; The Value of Trees; Food Supplies; Using the Past to Get to the Future; Planting Prairies, Corn, and Native Trees; Something Old, Something New; We Depend on One Another; Fuel Up!; Balancing Act; Planting Food Webs; It’s About Survival</p>

Algebra	Level 9 4, 16, 20, 11, 22 Level 10 17, 5, 9, 22, 11, 25 Level 14 8, 15, 16, 36, 18, 30, 31, 21	<u>Growing in the Garden</u> Gardeners and Farmers; Be Loyal to the Soil; Smart Shopping; Garden Math <u>Where We Live</u> The Value of Trees; Balancing Act; Planting Food Webs; Iowa’s #1 Resource; It’s About Survival
Geometry	Level 9 5, 21, 18, 7 Level 10 10, 21, 7, 27, 24 Level 14 14, 20, 6, 24, 11, 27	<u>Growing in the Garden</u> Food Guide Pyramid; Sunflower House; A Dream Garden; Smart Shopping; Salad Garden; Garden of Good Eatin’; Grow a Butterfly Garden; Garden Math; Nutrient Navy; Salsa and Herb Gardens <u>Where We Live</u> Balancing Act; Planting Food Webs; Management by Maps
Measurement	Level 9 13, 24, 8 Level 10 2, 13, 26 Level 14 1, 22, 17, 29	<u>Growing in the Garden</u> Gardeners and Farmers; Water and Light; Sunflower House; A Dream Garden; Smart Shopping; Salad Garden; Rocks to Ice Cream; Grow a Butterfly Garden; Thomas Jefferson; Garden Math; Germination; Windowsill Herb Garden; International Cookbook; Value-added Tomatoes; Salsa and Herb Garden <u>Where We Live</u> Planting Food Webs; Food Supplies; Planting Prairies, Corn, and Native Trees; Fuel Up! Balancing Act; Food Safety-Farm to Table; Mngt. by Maps

<p>Problem Solving</p>	<p>Level 9 3, 5, 8-10, 12, 18, 11, 13, 14, 7, 20, 6, 19</p> <p>Level 10 2, 8, 17, 1, 3, 4, 15, 18, 22, 23, 10, 16, 9, 24</p> <p>Level 14 6, 7, 13-16, 21-24, 28, 29, 31, 32, 8, 26, 5, 12, 30</p>	<p><u>Growing in the Garden</u> Meet Johnny Appleseed; Sunflower House; My Dream Garden; Smart Shopping; Salad Garden Mulches; Grow a Butterfly Garden; Salsa and Herb Gardens; Rocks to Ice Cream; Garden Math; Value-added Tomatoes</p> <p><u>Where We Live</u> Planting Prairies, Corn, and Native Grasses; Something Old, Something New; We Depend on One Another; Fuel Up! Balancing Act; Food Safety; Planting Food Webs; Iowa’s #1 Natural Resource; It’s About Survival; Gardening with a Purpose</p>
<p>Data Interpretation</p>	<p>Level 9 1, 21, 22, 2, 16, 4, 15, 17</p> <p>Level 10 11, 20, 12, 14, 19, 6, 21, 13, 5, 7</p> <p>Level 14 17, 10, 1, 9, 20, 2, 18, 11, 4, 3, 19, 25, 27</p>	<p><u>Growing in the Garden</u> Gardeners and Farmers; Water and Light; Food Guide Pyramid; A Dream Garden; Garden of Good Eatin’; Thomas Jefferson; Germination; Photosynthesis</p> <p><u>Where We Live</u> Where Do I live?; My Favorite Food; The Value of Trees; Planting Prairies, Corn, and Native Grasses; Something Old, Something New; Gene Pool; Balancing Act; Planting Food Webs; Management by Maps</p>

Food, Land and People Correlation Project

Level 9 (Grade 3)

Math Problem Solving and Data Interpretation

ITBS Question Number	FLP Lesson (s)	Test Question – Content Skills (ITBS)	National Standards (NCTM)	Content/Thinking Skills
1	Buzzy Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Read amounts- on the scales of line and bar graphs	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Applying
2	Buzzy Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Compare Quantities- to determine rank	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Applying
3	Buzzy Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Problem Solving: Single -step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Applying
4	Buzzy Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Compare Quantities- To find ratios	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Applying

5	None			
6	None			
7	Feed the Need,	Problem Solving: Approaches and Procedures- Identify insufficient information	Problem Solving: solve problems that arise in mathematics and in other contexts	Analyzing Summarizing
8	Feed the Need, Buzzy, Buzzy Bee; We are into Pumpkins	Problem Solving: Single-step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Applying
9	Feed the Need, Buzzy, Buzzy Bee, We are into Pumpkins	Problem Solving: Single-step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Applying
10	Feed the Need, Buzzy, Buzzy Bee; We are into Pumpkins	Problem Solving: Single-step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Applying

11	Why I Buy?; Let's Celebrate	Problem Solving: Multiple-step	Problem Solving: solve problems that arise in mathematics and in other contexts; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Applying Analyzing
12	Why I Buy?; Let's Celebrate	Problem Solving: Single-step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Applying Analyzing
13	Why I Buy?; Let's Celebrate	Problem Solving: Multiple-step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Applying Analyzing
14	Why I Buy?; Let's Celebrate	Problem Solving: Multiple-step	Problem Solving: solve problems that arise in mathematics and in other contexts	Applying Analyzing
15	Be Label Able; Sea to Shining Sea	Data Interpretation: Interpret Relationships and Trends- To understand underlying and functional relationships	Data analysis and Probability: recognize the differences in representing categorical and numerical data.	Analyzing Applying

16	Be Label Able; Sea to Shining Sea	Data Interpretation: Compare Quantities- To determine sums and differences	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Analyzing Applying
17	Be Label Able; Sea to Shining Sea	Data Interpretation: Interpret Relationships and Trends- To generalize or draw conclusions	Data analysis and Probability: recognize the differences in representing categorical and numerical data.	Analyzing Applying
18	None			
19	None			
20	None			
21	Buzzy Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Read amounts- on the scales of line and bar graphs	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Applying
22	Buzzy Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Read amounts- By locating a specific cell in a table	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Applying

Food, Land and People Correlation Project

Level 10 (Grade 4)

Math Problem Solving and Data Interpretation

ITBS Question	FLP Lesson (s)	Test Question – Content Skills (ITBS)	National Standards (NCTM)	Content/Thinking Skills
1	Why I Buy; Let's Celebrate	Problem solving: Multi-step	Problem Solving: solve problems that arise in mathematics and in other contexts	Applying Analyzing
2	Why I Buy; Let's Celebrate	Problem Solving: Single-Step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems	Applying Analyzing
3	Why I Buy; Let's Celebrate	Problem Solving: Multiple-Step	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems	Applying Analyzing
4	Why I Buy; Let's Celebrate	Problem Solving: Multiple-Step	Problem Solving: solve problems that arise in mathematics and in other contexts	Applying Analyzing
5	Be Label Able; From Sea to Shining Sea	Data Interpretation: Interpret Relationships and Trends- To understand underlying and functional relationships	Data analysis and Probability: recognize the differences in representing categorical and numerical data.	Analyzing Applying
6	Be Label Able; From Sea to Shining Sea	Data Interpretation: Compare Quantities- To determine sums and differences	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Analyzing Applying

7	Be Label Able; From Sea to Shining Sea	Data Interpretation: Interpret Relationships and Trends	Data analysis and Probability: recognize the differences in representing categorical and numerical data.	Analyzing Applying
8	none			
9	None			
10	None			
11	Buzzy, Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Read amounts- on the scales of line and bar graphs	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Applying
12	Buzzy, Buzzy Bee; We are into Pumpkins; What Piece of the Pie	Data Interpretation: Read Amounts- By locating a specific cell in a table (ITBS)	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Applying
13	What Piece of the Pie; Why I Buy; We're into Pumpkins	Data Interpretation: Compare Quantities- To find ratios (ITBS)	Data analysis and Probability: Apply and adapt a variety of appropriate strategies to solve problems; Measurement: select and use benchmarks to estimate measurements	Visualizing Applying
14	What Piece of the Pie; Why I Buy; We're into Pumpkins	Data Interpretation: Compare Quantities- To determine rank (ITBS)	Data analysis and Probability: Apply and adapt a variety of appropriate strategies to solve problems; Measurement: select and use benchmarks to estimate measurements	Visualizing Applying

15	What Piece of the Pie; Why I Buy; We're into Pumpkins	Problem Solving- Multi steps (ITBS)	Problem Solving: solve problems that arise in mathematics and in other contexts; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Applying
16	None			
17	None			
18	None			
19	Buzzy Buzzy Bee, We're into Pumpkins;	Data Interpretation: Compare Quantities- To determine rank (ITBS)	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Summarizing
20	Buzzy Buzzy Bee, We're into Pumpkins;	Data Interpretation: Read Amounts- On the scales of line and bar graphs (ITBS)	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs	Visualizing Summarizing
21	Buzzy Buzzy Bee, We're into Pumpkins	Data Interpretation: Compare Quantities- To determine sums and differences (ITBS)	Data analysis and Probability: represent data using tables and graphs such as line plots, bar graphs and line graphs; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Visualizing Summarizing

22	It All Starts with A; Gala Fiesta Jamboree	Problem Solving: Multi Step (ITBS)	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Analyzing Applying
23	It All Starts with A; Gala Fiesta Jamboree	Problem Solving: Multi Step (ITBS)	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Analyzing Applying
24	It All Starts with A; Gala Fiesta Jamboree	Problem Solving: Multi Step (ITBS)	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Measurement: select and use benchmarks to estimate measurements; Number and operations: develop fluency in adding, subtracting, multiplying and dividing whole numbers	Analyzing Applying

Food, Land and People Correlation Project

Level 14 (Grade 8)

Math Problem Solving and Data Interpretation

ITBS Question	FLP Lesson (s)	Test Question – Content Skills (ITBS)	National Standards (NCTM)	Content/Thinking Skills
1	Don't Use it All Up; It All Starts with A; Piecing together Population Patterns	Data Interpretation: Read Amounts- By locating a specific cell in a table (ITBS)	Data analysis and Probability: recognize the differences in representing categorical and numerical data.	Analyzing Applying
2	Don't Use it All Up; It All Starts with A; Piecing together Population Patterns	Data Interpretation: Compare Quantities- To find ratios (ITBS)	Number and Operations: work flexibly with fractions, decimals, and percents to solve problems	Analyzing Applying
3	Don't Use it All Up; It All Starts with A; Piecing together Population Patterns	Data Interpretation: Interpret Relationships and Trends- To understand underlying and functional relationships (ITBS)	Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Analyzing Applying
4	Don't Use it All Up; It All Starts with A; Piecing together Population Patterns	Data Interpretation: Interpret relationships and trends- To understand underlying and functional relationships (ITBS)	Algebra: use graphs to analyze the nature of changes in quantities in linear relationships	Analyzing Applying

5	Calorie Counting; Six Billion and Still Growing	Problem Solving: Approaches and procedures-Choose solution methods (ITBS)	Number operations: use the associative and commutative properties of addition and multiplication and the distributive property of multiplication over addition to simplify computations with integers, fractions and decimals	Analyzing Applying
6	Calorie Counting; Six Billion and Still Growing	Problem solving: multi-step (ITBS)	Problem Solving: solve problems that arise in mathematics and in other contexts	Analyzing Applying
7	Calorie Counting; Six Billion and Still Growing	Problem solving: multi-step (ITBS)	Problem Solving: Apply and adapt a variety of appropriate strategies to solve problems; Number Operations: work flexibly with fractions, decimals, and percents to solve problems	Analyzing Applying
8	Calorie Counting; Six Billion and Still Growing	Problem solving: Approaches and procedures-identify insufficient information (ITBS)	Problem Solving: monitor and reflect on the process of mathematical problem solving Algebra: develop an initial conceptual understanding of different uses of variables	Analyzing Applying
9	What Piece of the Pie; Global Grocery Bags	Data Interpretation: Compare Quantities- To determine sums and differences (ITBS)	Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Visualizing Analyzing

10	What Piece of the Pie; Global Grocery Bags	Data Interpretation: Read Amounts- To interpret the sectors of a circle graph (ITBS)	Number Operations: work flexibly with fractions, decimals, and percents to solve problems	Visualizing Analyzing
11	What Piece of the Pie; Global Grocery Bags	Data Interpretation: Interpret relationships and trends- To determine rates or identify trends	Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Visualizing Analyzing
12	Counting Calories; What Piece of the Pie; Go Go H20	Problem Solving: Approaches and procedures- Choose solution methods	Problem Solving: monitor and reflect on the process of mathematical problem solving	Analyzing Applying
13	Counting Calories; What Piece of the Pie; Go Go H20	Problem Solving: Multi Step (ITBS)	Problem Solving: monitor and reflect on the process of mathematical problem solving; solve problems that arise in mathematics and in other contexts	Analyzing Applying
14	Counting Calories; What Piece of the Pie; Go Go H20	Problem Solving: Multi Step (ITBS)	Problem Solving: monitor and reflect on the process of mathematical problem solving; solve problems that arise in mathematics and in other contexts	Analyzing Applying

15	Counting Calories; What Piece of the Pie; Go Go H20	Problem Solving: Multi Step (ITBS)	Number Operations: work flexibly with fractions, decimals, and percents to solve problems; Problem Solving: solve problems that arise in mathematics and in other contexts	Analyzing Applying
16	Counting Calories; What Piece of the Pie; Go Go H20	Problem Solving: Multi Step (ITBS)	Problem Solving: monitor and reflect on the process of mathematical problem solving; solve problems that arise in mathematics and in other contexts	Analyzing Applying
17	Six Billion and Still Growing; Piecing Together Population Patterns	Data Interpretation: Read Amts- On the scales of line and bar graphs (ITBS)	Number and Operations: develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results	Visualizing Synthesizing
18	Six Billion and Still Growing; Piecing Together Population Patterns	Data Interpretation: Compare Quantities- to find ratios (ITBS)	Number and Operations: develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results	Visualizing Synthesizing

19	Six Billion and Still Growing; Piecing Together Population Patterns	Data Interpretation: Interpret relationships and trends- To generalize or draw conclusions (ITBS)	Number and Operations: develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results; Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Visualizing Synthesizing
20	Six Billion and Still Growing; Piecing Together Population Patterns	Data Interpretation: Compare Quantities- To determine sums and differences (ITBS)	Number and Operations: develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Visualizing Synthesizing
21	None			
22	None			
23	None			
24	None			

25	Be Label Able	Data Interpretation: Interpret relationships and trends- To generalize or draw conclusions (ITBS)	Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Analyzing Evaluating
26	Be Label Able	Problem Solving: Approaches and procedures-Identify insufficient information (ITBS)	Problem Solving: monitor and reflect on the process of mathematical problem solving	Analyzing Evaluating
27	Be Label Able	Data Interpretation: Interpret relationships and trends- To generalize or draw conclusions (ITBS)	Data analysis and Probability: use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken	Analyzing Evaluating
28	None			
29	None			
30	None			
31	None			
32	None			