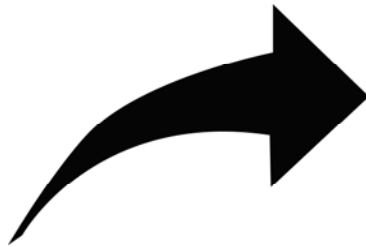


# ISAT Essentials



## Core Priorities for Grade 8

Center for Urban Education  
<http://teacher.depaul.edu>

*This guide includes test specifications from ISBE. Those specifications and additional ISAT preparation materials are available at [isbe.net](http://isbe.net).*

## 8<sup>th</sup> Grade READING

### **Vocabulary Challenges—Determine word meaning—context, structure, base word**

#### **Vocabulary Questions—Stems based on ISAT samples**

- Based on the etymology of the word xxxx, which of these is the best meaning of the word xxxx in this sentence?
- How does the prefix affect this word?
- What is the etymology of \_\_\_?
- What is the root word of \_\_\_?
- What is a synonym for \_\_\_?  
What is an antonym for \_\_\_?
- Which word means the same as \_\_\_\_\_ in these sentences?

#### **Fiction**

Analyze questions—what kind of question is it; how do I answer it?

- Infer meaning of word from context
- Infer cause-effect, motive, predictions
- Point of view
- Summarize
- Infer the theme of a story, myth, or fable
- Analyze: genre; compare/contrast
- Infer: character traits, setting, plot, motive, prediction, main idea/theme, meaning of word from context
- Evaluate: author's techniques

#### **Challenging Questions Based on ISAT Samples**

- According to this sentence, which best describes the feelings of \_\_\_\_\_?
- How does the phrase xxxxx relate to the passage?
- How does the writer communicate the theme?
- In \_\_\_\_\_, the heading \_\_\_\_\_ refers to ----.
- In paragraph n, which literacy device does the author use?
- What is the first thing X does after ...? Why does X do that?
- What is the genre of \_\_\_\_\_?
- What is the mood of \_\_\_\_\_?
- Which is the best summary for paragraphs 1 and 2?
- Which literary device is used in the sentence below?
- Which statement summarizes the passage?
- Which word means the same as \_\_\_\_\_ in these sentences?

#### **Extended Response Examples from ISAT samples**

- What lesson can people learn from this story?
- What conclusions can someone draw about \_\_\_\_\_ based on this passage?

## **Non-Fiction**

Analyze questions and answers—how do I choose the most important information; how do I choose the best answer?

- Infer meaning from context
- Identify fact/opinion
- Summarize—evaluate the information and decide what is important
- Identify the Main Idea and evaluate the importance of information to support it
- Analyze: compare/contrast; fact/opinion
- Infer meaning of word from context.

### **Challenging Questions Based on ISAT Samples**

- How do the headings help the reader?
- How does the phrase xxxxx relate to the passage?
- How does the writer organize the passage?
- Paragraph N of this selection is mainly about
- What does \_\_\_\_ (give word) mean as used in this sentence?
- What is an opinion in the passage?
- What is the genre of \_\_\_\_\_?
- What is the main idea of paragraph n?
- What is the main idea of the passage?
- What is the writer's purpose?
- Which best describes what \_\_\_\_ are?
- Which information supports that main idea?
- Which is the best summary for part 1?
- Which statement summarizes the passage?

## **Interpret Poems**

### **Challenging Questions Based on ISAT Samples**

- If you did not know the meaning of \_\_\_\_ in stanza N, you should \_\_\_\_.
- In line n, when the speaker says ..., she most likely means \_\_\_\_.
- In this poem, which point of view does the poet use?
- The poet most likely took the idea for this poem from \_\_\_\_.
- Why does the speaker feel \_\_\_\_?

## EIGHTH GRADE MATH PRIORITIES

Priorities identified through the ISBE ISAT online resources and CPS Learning Targets  
<http://www.chicagoteachingandlearning.org/component/content/article/235-learning-targets.html>

### Problem Solving

Students need to be able to...

<input type="checkbox"/> solve problems in each of these areas of math.	<input type="checkbox"/> Use probability in problem-solving situations
<input type="checkbox"/> Make predictions	<input type="checkbox"/> Use ratios to describe problem situations
<input type="checkbox"/> show the steps they take	<input type="checkbox"/> justify a concept or relationship
<input type="checkbox"/> explain the reasons for their choices of strategies.	

Math Content	Examples of Questions from ISAT Sample
<p><b>number sense and operations</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> absolute value</li> <li><input type="checkbox"/> approximation</li> <li><input type="checkbox"/> commutative</li> <li><input type="checkbox"/> distributive</li> <li><input type="checkbox"/> equivalent representation of numbers</li> <li><input type="checkbox"/> estimate</li> <li><input type="checkbox"/> factors</li> <li><input type="checkbox"/> formula</li> <li><input type="checkbox"/> greatest common factor</li> <li><input type="checkbox"/> number systems</li> <li><input type="checkbox"/> order of operations</li> <li><input type="checkbox"/> properties</li> <li><input type="checkbox"/> proportional reasoning</li> <li><input type="checkbox"/> square</li> <li><input type="checkbox"/> square root</li> </ul>	<ul style="list-style-type: none"> <li>• Which point best represents the square root of 10 on a number line?</li> <li>• Look at the additional patterns below. Using this pattern, how many numbers must be added to equal 64?</li> <li>• Math books have between 200 and 600 pages. Which number line shows this?</li> <li>• A school had <math>N</math> students last year. There are <math>n\%</math> more this year. How many students are there?</li> <li>• Amy has <math>n/X</math> of a yard of string to make bracelets. She needs <math>n/Y</math> of a yard to make each one. What is the most number of bracelets she can make?</li> </ul>
<p><b>algebra</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Additive identity property</li> <li><input type="checkbox"/> Additive inverse property</li> <li><input type="checkbox"/> Associative property</li> <li><input type="checkbox"/> Balance</li> <li><input type="checkbox"/> Compound inequality</li> <li><input type="checkbox"/> Equations</li> <li><input type="checkbox"/> exponent</li> <li><input type="checkbox"/> expressions</li> <li><input type="checkbox"/> function</li> <li><input type="checkbox"/> inequalities</li> <li><input type="checkbox"/> inverse relations</li> <li><input type="checkbox"/> linear equation</li> <li><input type="checkbox"/> permutation</li> <li><input type="checkbox"/> prime factorization</li> <li><input type="checkbox"/> rational number</li> <li><input type="checkbox"/> scientific notation</li> <li><input type="checkbox"/> table of values</li> <li><input type="checkbox"/> variable</li> </ul> <p><b>Algebraic Thinking</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Identify a relationship and make generalizations from linear or non-linear sequences</li> <li><input type="checkbox"/> Represent, simplify, and solve mathematical relationships and situations with expressions, equations, and inequalities.</li> <li><input type="checkbox"/> Identify, interpret, represent, and solve functions in a coordinate system.</li> </ul>	<ul style="list-style-type: none"> <li>• Which equation shows the relationship between <math>x</math> and <math>y</math>?</li> <li>• If it is true that <math>16n &lt; 16</math> and <math>p &gt; 0</math> and <math>P &lt; 16</math>, what is true about <math>n</math>?</li> <li>• The inequality <math>70 \text{ degrees} &lt; x &lt; 80 \text{ degrees}</math> represents the range of best water temperature for Sammy's fish. Which statement is true about the water temperature?</li> <li>• What is the value of <math>x</math>?</li> <li>• Which is equivalent to the expression below?</li> </ul>

<b>Math Content</b>	<b>Examples of Questions from ISAT Sample</b>
<p><b>geometry and measurement</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> angles</li> <li><input type="checkbox"/> area</li> <li><input type="checkbox"/> area</li> <li><input type="checkbox"/> complementary angles</li> <li><input type="checkbox"/> conversion</li> <li><input type="checkbox"/> coordinate system</li> <li><input type="checkbox"/> cube</li> <li><input type="checkbox"/> estimate</li> <li><input type="checkbox"/> isosceles trapezoid</li> <li><input type="checkbox"/> line segment</li> <li><input type="checkbox"/> mass/weight</li> <li><input type="checkbox"/> measurable attributes</li> <li><input type="checkbox"/> pyramid (regular)</li> <li><input type="checkbox"/> rectangular prism</li> <li><input type="checkbox"/> rectangular pyramid</li> <li><input type="checkbox"/> right cylinder</li> <li><input type="checkbox"/> scale</li> <li><input type="checkbox"/> scale</li> <li><input type="checkbox"/> square prism</li> <li><input type="checkbox"/> surface area</li> <li><input type="checkbox"/> three dimensional</li> <li><input type="checkbox"/> transformations</li> <li><input type="checkbox"/> trapezoid</li> <li><input type="checkbox"/> triangular prism</li> </ul>	<ul style="list-style-type: none"> <li>• Which is the closest to the circumference of the circle?</li> <li>• How many milliliters are in N liters?</li> <li>• What is the surface area of the prism?</li> <li>• In a triangle, given two angles' degrees and <math>x-5</math> for the third angle, what is the value of <math>x</math>?</li> <li>• Triangle XYZ is similar to triangle RST. What is the length of ST?</li> <li>• A cylinder is N inches tall. It has a radius of y inches. Which is the closest to the volume of the cylinder?</li> <li>• This picture is a scale drawing of an ____. What is the height?</li> <li>• Line l intersects parallel lines m and n as shown. Which list contains all the angles that are congruent to angle 1?</li> <li>• Which drawing represents the top view of this solid?</li> <li>• KLMN is an isosceles trapezoid. The perimeter is 32cm. What is the area?</li> </ul>
<p><b>data analysis and probability</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> chart</li> <li><input type="checkbox"/> circle graph</li> <li><input type="checkbox"/> graph</li> <li><input type="checkbox"/> line graph</li> <li><input type="checkbox"/> line plot</li> <li><input type="checkbox"/> mean/average</li> <li><input type="checkbox"/> median</li> <li><input type="checkbox"/> mode</li> <li><input type="checkbox"/> pattern</li> <li><input type="checkbox"/> predict</li> <li><input type="checkbox"/> probability</li> <li><input type="checkbox"/> range</li> <li><input type="checkbox"/> table</li> <li><input type="checkbox"/> tally, tally chart</li> <li><input type="checkbox"/> Venn diagram</li> </ul>	<ul style="list-style-type: none"> <li>• Mike as 2 red apples and 3 green apples. Without looking, he takes two apples. What is the probability that Make takes two red apples?</li> <li>• The circle graph represents a total of 240 animals. The shaded area represents the number of monkeys. How many of the animals are monkeys?</li> <li>• Which graph shows <math>y = 3</math>?</li> <li>• The graph of a line contains the points (5, 3) and (5, =1_. Which must be true about the graph of this line?</li> <li>• Which graph shows a line of best fit?</li> </ul>