MISA 2 Point Rubric

Score Point 2

There is evidence in this response that the student has a *complete understanding* of the solution to a problem or constructs a complete explanation of the question.

- Demonstrates complete integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is coherent and based on disciplinary core ideas
- Reflects synthesis of understanding of complex ideas and crosscutting concepts
- Includes an effective application of the 3 dimensions (SEP, DCI, and CCC) to a practical problem or real-world situation which demonstrates an understanding of the 3 dimensions

Score Point 1

There is evidence in this response that the student has a *minimal understanding* of the solution to a problem or constructs an explanation of the question.

- Demonstrates little or no integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is minimally based on disciplinary core ideas
- Reflects little or no synthesis of understanding of complex ideas and crosscutting concepts
- Includes an application of the 3 dimensions to a practical problem or real-world situation which demonstrates a minimal understanding of the 3 dimensions

Score Point 0

There is evidence that the student has *no understanding* of the solution to a problem or the question.

- The response is completely incorrect, too vague, or irrelevant to the solution or question

MISA 3 Point Rubric

Score Point 3

There is evidence in this response that the student has a *full and complete understanding* of the solution to a problem or constructs a complete explanation of the question.

- Demonstrates complete integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is coherent and based on disciplinary core ideas
- Reflects a complete synthesis of understanding of complex ideas and crosscutting concepts
- Includes an effective application of the 3 dimensions (SEP, DCI, and CCC) to a practical problem or real-world situation which demonstrates a complete understanding of the 3 dimensions

Score Point 2

There is evidence in this response that the student has a *general understanding* of the solution to a problem or constructs a general explanation of the question.

- Demonstrates some integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is mostly coherent and based on disciplinary core ideas
- Reflects some synthesis of understanding of complex ideas and crosscutting concepts
- Includes an application of the 3 dimensions to a practical problem or real-world situation which demonstrates a partial understanding of the 3 dimensions

Score Point 1

There is evidence in this response that the student has a *minimal understanding* of the solution to a problem or constructs a minimal explanation of the question.

- Demonstrates little or no integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is minimally based on disciplinary core ideas
- Reflects little or no synthesis of understanding of complex ideas and crosscutting concepts

- Includes an application of the 3 dimensions to a practical problem or real-world situation which demonstrates a minimal understanding of the 3 dimensions.

Score Point 0

There is evidence that the student has *no understanding* of the solution to a problem or the question.

- The response is completely incorrect, too vague, or irrelevant to the solution or question

MISA 4 Point Rubric

Score Point 4

There is evidence in this response that the student has a *full and complete understanding* of the solution to a problem or constructs a full and complete explanation of the question.

- Demonstrates complete integration of the use of science and engineering practices such as modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is coherent and based on disciplinary core ideas
- Reflects a complete synthesis of understanding of complex ideas and crosscutting concepts
- Includes an effective application of the 3 dimensions (SEP, DCI, and CCC) to a practical problem or real-world situation which demonstrates a complete understanding of the 3 dimensions

Score Point 3

There is evidence in this response that the student has a *general understanding* of the solution to a problem or constructs a complete explanation of the question.

- Demonstrates integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is mostly coherent and based on disciplinary core ideas
- Reflects a synthesis of understanding of complex ideas and crosscutting concepts
- Includes an effective application of the 3 dimensions to a practical problem or real-world situation which demonstrates an understanding of the 3 dimensions

Score Point 2

There is evidence in this response that the student has a *partial understanding* of the solution to a problem or constructs an explanation of the question.

- Demonstrates some integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is adequately coherent and based on disciplinary core ideas
- Reflects some synthesis of understanding of complex ideas and crosscutting concepts
- Includes an application of the 3 dimensions to a practical problem or real-world situation which demonstrates a partial understanding of the 3 dimensions

Score Point 1

There is evidence in this response that the student has a *minimal understanding* of the solution to a problem or constructs a minimal explanation of the question.

- Demonstrates little or no integration of the use of science and engineering practices such as, modeling, engaging in argument from evidence, obtaining, evaluating, and communicating information, etc.
- Provides a solution or explanation that is minimally based on disciplinary core ideas
- Reflects little or no synthesis of understanding of complex ideas and crosscutting concepts
- Includes an application of the 3 dimensions to a practical problem or real-world situation which demonstrates a minimal understanding of the 3 dimensions

Score Point 0

There is evidence that the student has *no understanding* of the solution to a problem or the question.

- The response is completely incorrect, too vague, or irrelevant to the solution or question