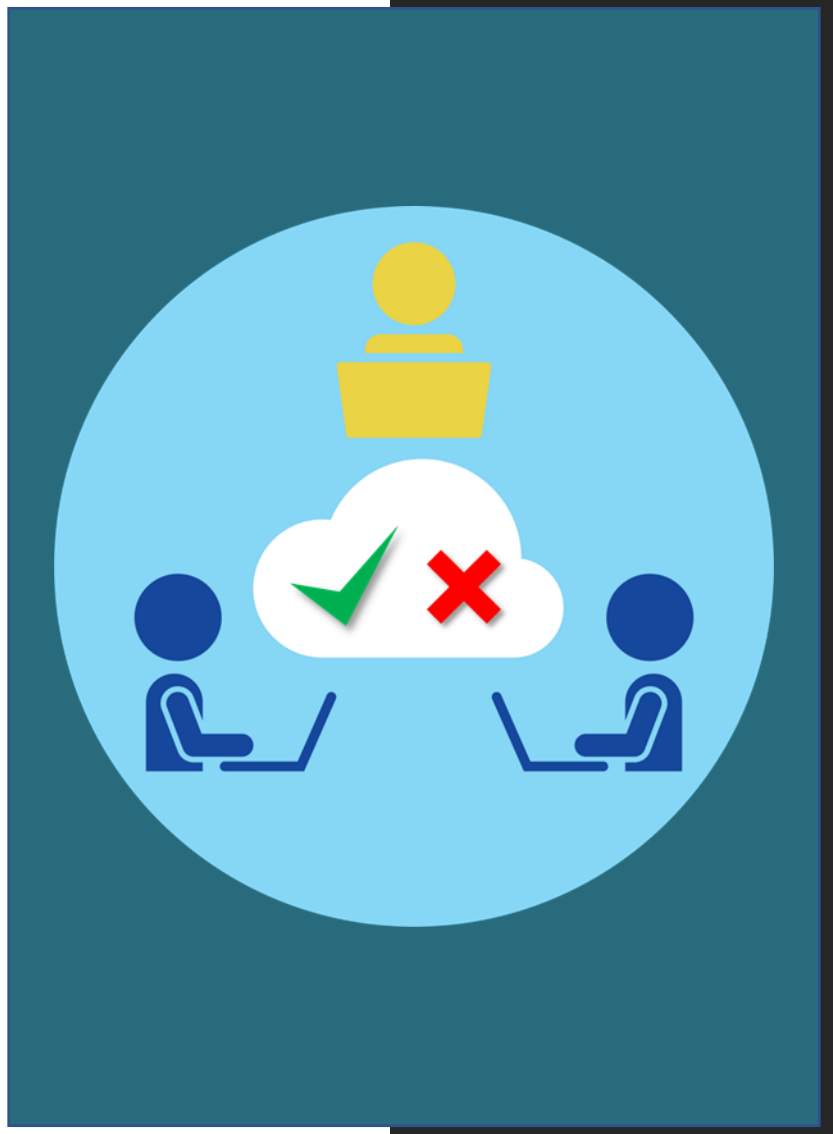
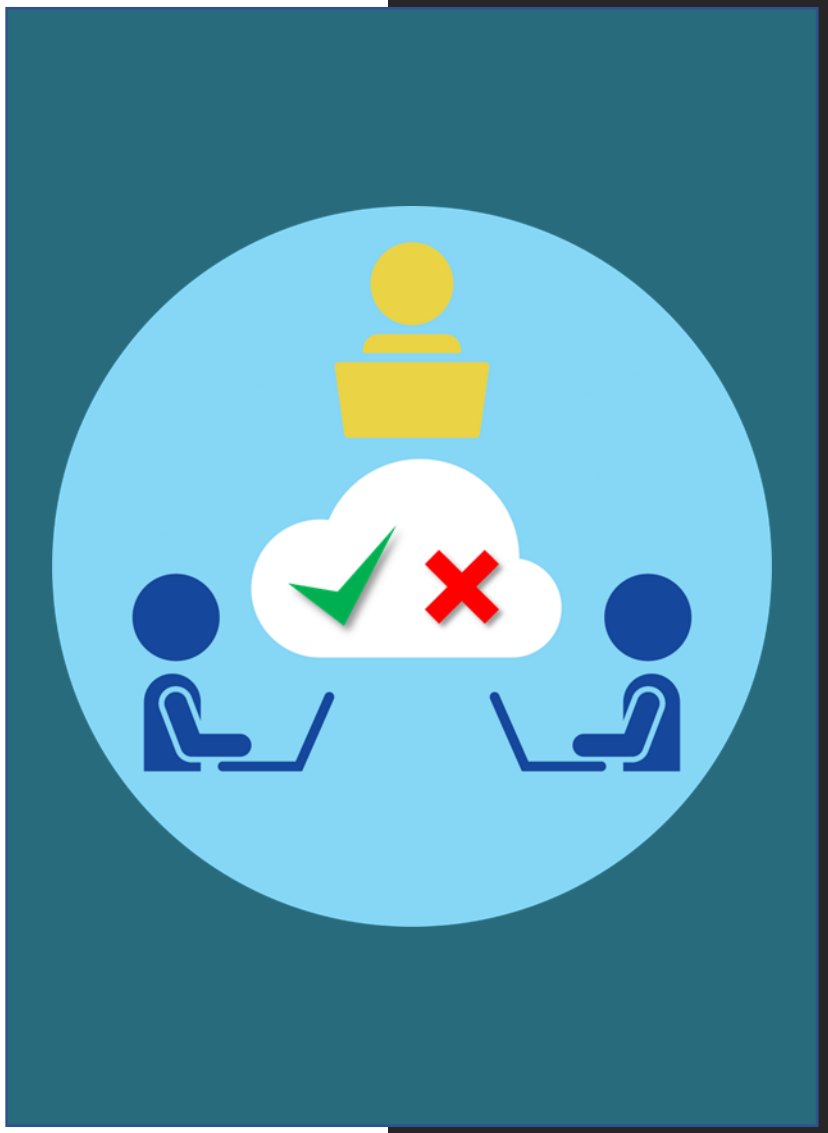
Developing Computer-Based PISA-Like Assessment Resources



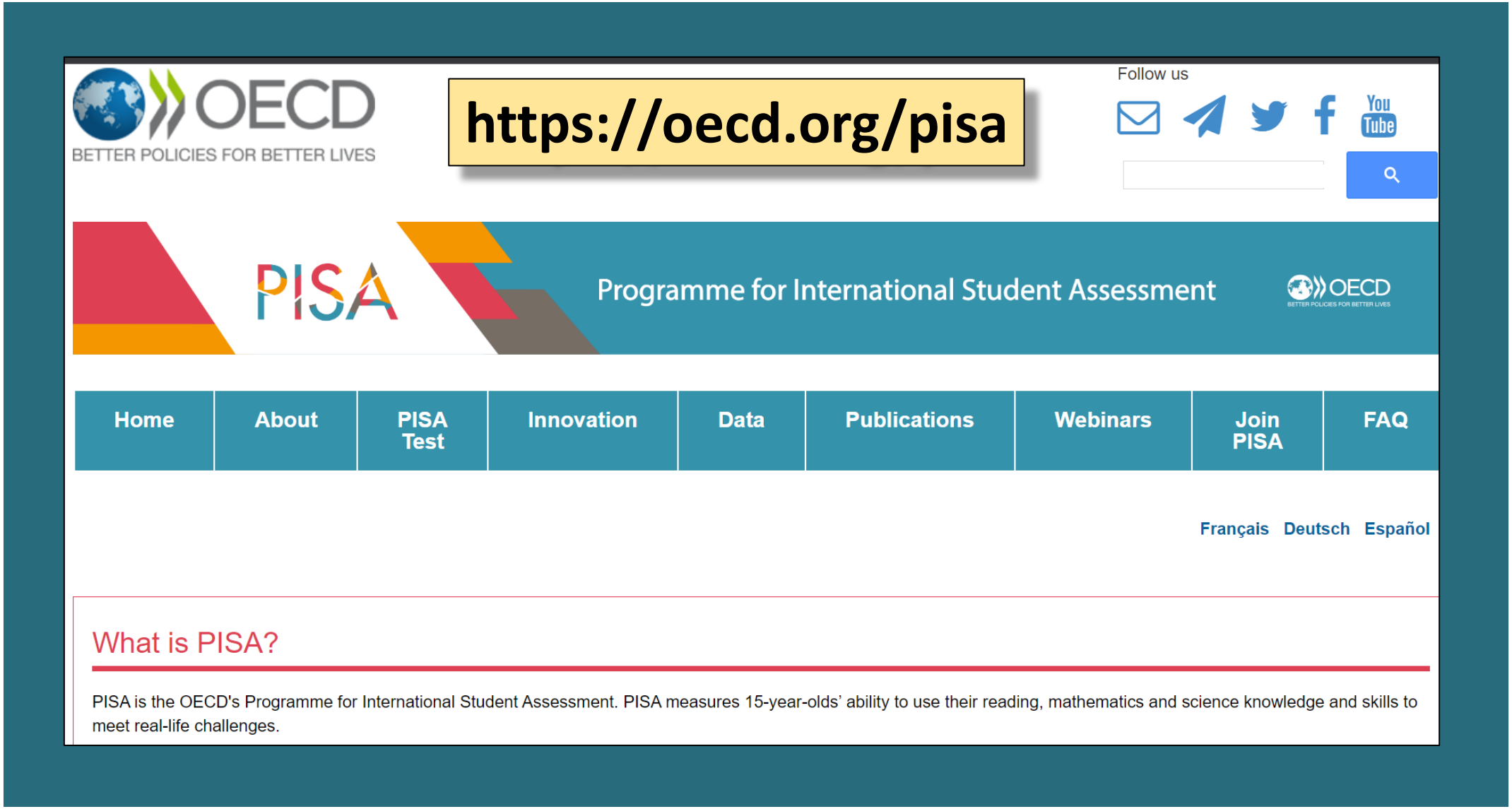
Developing Computer-Based PISA-Like Assessment Resources



Outline:

- What is PISA?
- What are PISA Assessments?
- Examples of PISA Assessment Resources?
- How to develop PISA-Like Assessment Resources?

What is PISA?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What is PISA?
PISA is the OECD's Programme for International Student Assessment. PISA measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges.

What is PISA?

"PISA is the OECD's Programme for International Student Assessment. PISA measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges."

Organization for Economic Cooperation and Development (OECD). https://oecd.org/pisa

What is PISA?

- Voluntary participation of countries
- Schools in each country are randomly selected (sampling)
- Assesses 15-year-old students in selected schools (sampling)
- Covers Math, Science, and Reading
- Computer-based (country can opt for paper-based)
- In English Language (country can opt for local language)
- Done every three years (delayed due the pandemic)
- Rotating Focus Subject every three years (Reading in 2018, Math in 2022, Science in 2025)

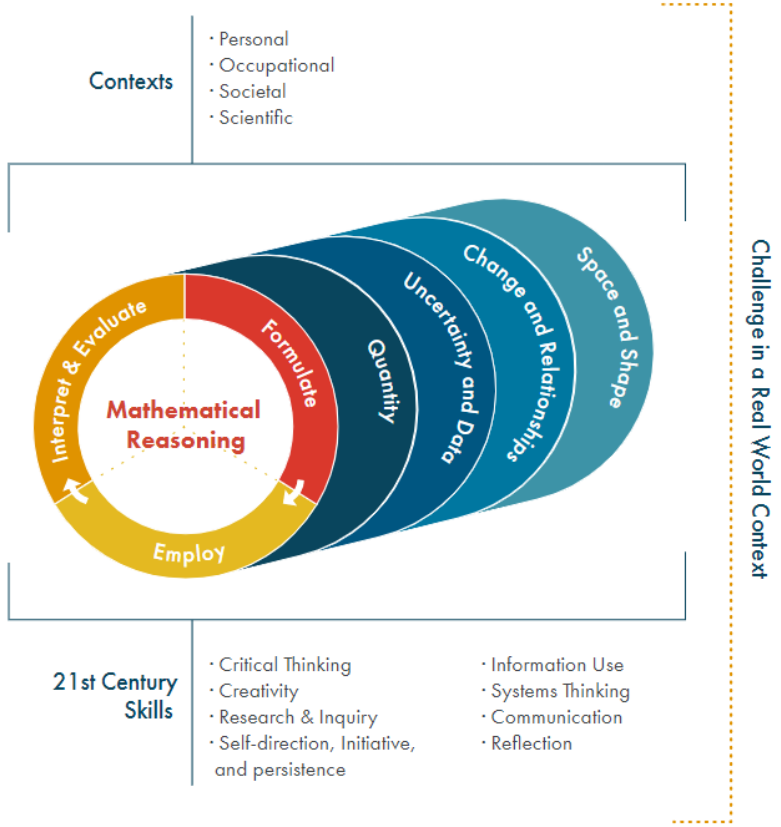
What are PISA Assessments?

PISA 2022 MATHEMATICS FRAMEWORK

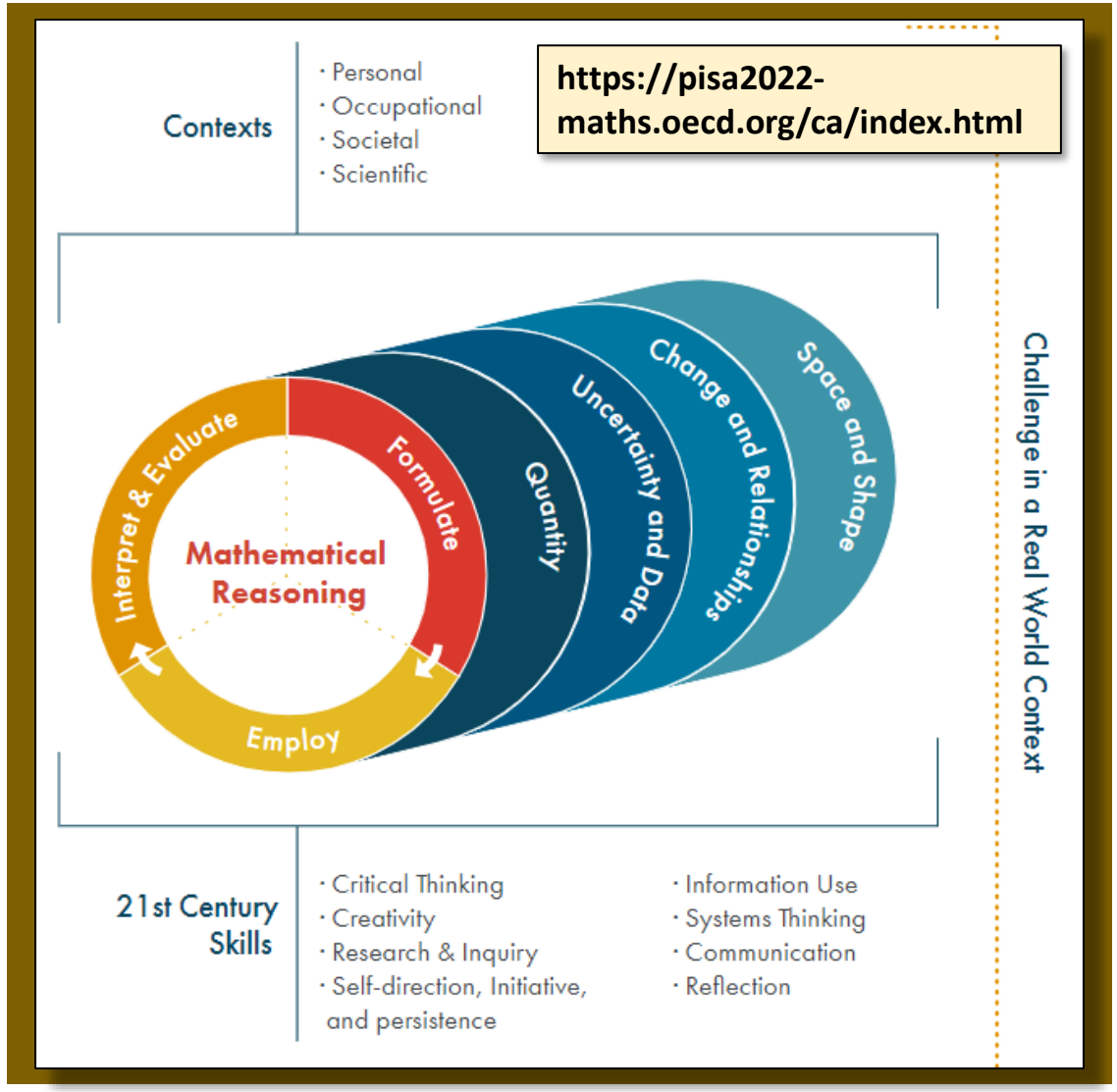
https://pisa2022-maths.oecd.org/ca/index.html

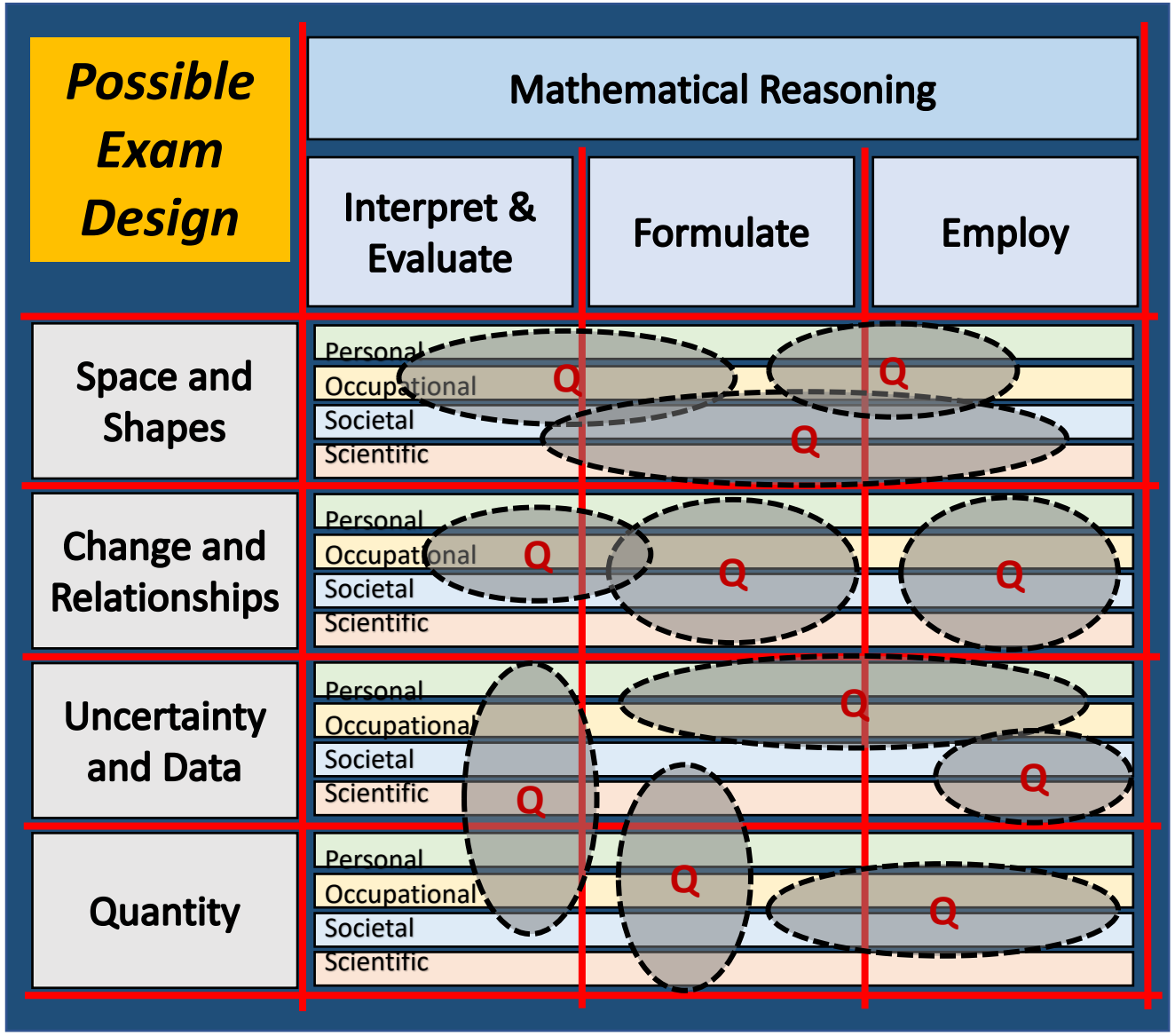
Explore the main sections below, click on the interactive framework components, or download the full PISA 2022 Mathematics Framework Draft in PDF format.

- Overview
- Mathematical Reasoning
- Content Knowledge
- Contexts
- 21st Century Skills
- Examples



What are PISA Assessments?





What are PISA Assessments?

Proficiency Levels - Mathematics

At Level 6, students can conceptualize, generalize and utilize information based on their investigations and modelling of complex problem situations, and can use their knowledge in relatively non-standard contexts. …….

At Level 5, students can develop and work with models for complex situations, identifying constraints and specifying assumptions. ……

At Level 4, students can work effectively with explicit models for complex, concrete situations that may involve constraints or call for making assumptions. ……

At Level 3, students can execute clearly described procedures, including those that require sequential decisions. ……

At Level 2, students can interpret and recognize situations in contexts that require no more than direct inference. ……

At Level 1, students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. ……..

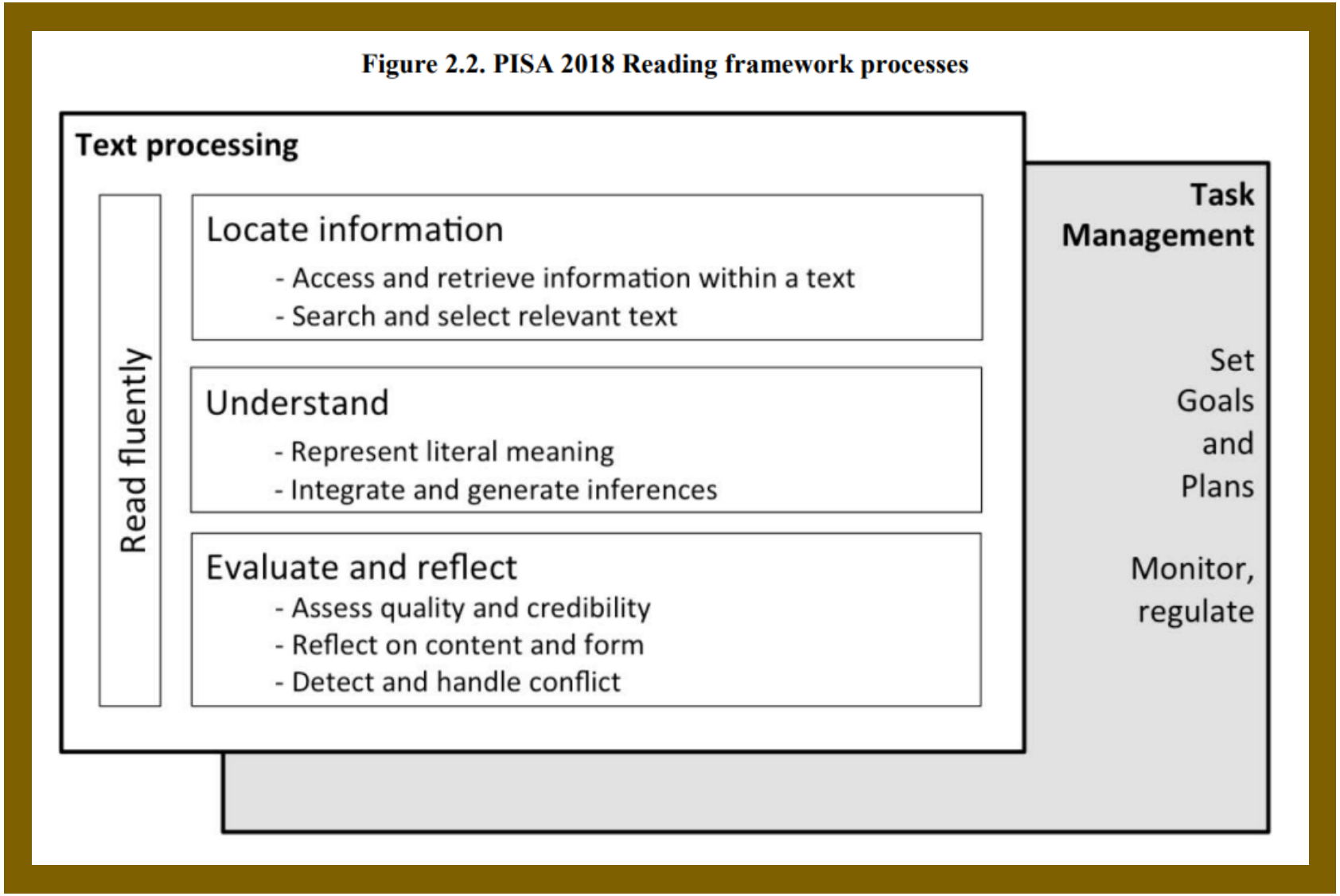
https://www.oecd-ilibrary.org/docserver/5f07c754-en.pdf

Table I.6.1 **Summary description of the six levels of mathematics proficiency in PISA 2018**

Level	Lower score limit	Percentage of students able to perform tasks at each level or above (OECD average)	Characteristics of tasks
6	669	2.4%	At Level 6, students can conceptualise, generalise and utilise information based on their investigations and modelling of complex problem situations, and can use their knowledge in relatively non-standard contexts. They can link different information sources and representations together and flexibly translate amongst them. Students at this level are capable of advanced mathematical thinking and reasoning. These students can apply this insight and understanding, along with a mastery of symbolic and formal mathematical operations and relationships, to develop new approaches and strategies for attacking novel situations. Students at this level can reflect on their actions, and can formulate and precisely communicate their actions and reflections regarding their findings, interpretations, arguments and the appropriateness of these to the original situation.
5	607	10.9%	At Level 5, students can develop and work with models for complex situations, identifying constraints and specifying assumptions. They can select, compare and evaluate appropriate problem-solving strategies for dealing with complex problems related to these models. Students at this level can work strategically using broad, well-developed thinking and reasoning skills, appropriate linked representations, symbolic and formal characterisations, and insight pertaining to these situations. Students at this level have begun to develop the ability to reflect on their work and to communicate conclusions and interpretations in written form.
4	545	29.5%	At Level 4, students can work effectively with explicit models for complex, concrete situations that may involve constraints or call for making assumptions. They can select and integrate different representations, including symbolic representations, linking them directly to aspects of real-world situations. Students at this level can utilise their limited range of skills and can reason with some insight in straightforward contexts. They can construct and communicate explanations and arguments based on their interpretations, arguments and actions.
3	482	53.8%	At Level 3, students can execute clearly described procedures, including those that require sequential decisions. Their interpretations are sufficiently sound to be a base for building a simple model or for selecting and applying simple problem-solving strategies. Students at this level can interpret and use representations based on different information sources and reason directly from them. They typically show some ability to handle percentages, fractions and decimal numbers, and to work with proportional relationships. Their solutions reflect that they have engaged in basic interpretation and reasoning.
2	420	76.0%	At Level 2, students can interpret and recognise situations in contexts that require no more than direct inference. They can extract relevant information from a single source and make use of a single representational mode. Students at this level can employ basic algorithms, formulae, procedures or conventions to solve problems involving whole numbers. They are capable of making literal interpretations of results.
1	358	90.9%	At Level 1, students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. They are able to identify information and carry out routine procedures according to direct instructions in explicit situations. They can perform actions that are almost always obvious and follow immediately from the given stimuli.

What are PISA Assessments?

PISA 2018 Reading Framework



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What are PISA Assessments?

Proficiency Levels - Reading (8 levels)

Table I.5.1 [1/2] **Summary description of the eight levels of reading proficiency in PISA 2018**

Level	Lower score limit	Percentage of students able to perform tasks at each level or above (OECD average)	Characteristics of tasks
6	698	1.3%	Readers at Level 6 can comprehend lengthy and abstract texts in which the information of interest is deeply embedded and only indirectly related to the task. They can compare, contrast and integrate information representing multiple and potentially conflicting perspectives, using multiple criteria and generating inferences across distant pieces of information to determine how the information may be used. Readers at Level 6 can reflect deeply on the text's source in relation to its content, using criteria external to the text. They can compare and contrast information across texts, identifying and resolving inter-textual discrepancies and conflicts through inferences about the sources of information, their explicit or vested interests, and other cues as to the validity of the information. Tasks at Level 6 typically require the reader to set up elaborate plans, combining multiple criteria and generating inferences to relate the task and the text(s). Materials at this level include one or several complex and abstract text(s), involving multiple and possibly discrepant perspectives. Target information may take the form of details that are deeply embedded within or across texts and potentially obscured by competing information.
5	626	8.7%	Readers at Level 5 can comprehend lengthy texts, inferring which information in the text is relevant even though the information of interest may be easily overlooked. They can perform causal or other forms of reasoning based on a deep understanding of extended pieces of text. They can also answer indirect questions by inferring the relationship between the question and one or several pieces of information distributed within or across multiple texts and sources. Reflective tasks require the production or critical evaluation of hypotheses, drawing on specific information. Readers can establish distinctions between content and purpose, and between fact and opinion as applied to complex or abstract statements. They can assess neutrality and bias based on explicit or implicit cues pertaining to both the content and/or source of the information. They can also draw conclusions regarding the reliability of the claims or conclusions offered in a piece of text. For all aspects of reading, tasks at Level 5 typically involve dealing with concepts that are abstract or counterintuitive, and going through several steps until the goal is reached. In addition, tasks at this level may require the reader to handle several long texts, switching back and forth across texts in order to compare and contrast information.
4	553	27.6%	At Level 4, readers can comprehend extended passages in single or multiple-text settings. They interpret the meaning of nuances of language in a section of text by taking into account the text as a whole. In other interpretative tasks, students demonstrate understanding and application of *ad hoc* categories. They can compare perspectives and draw inferences based on multiple sources. Readers can search, locate and integrate several pieces of embedded information in the presence of plausible distractors. They can generate inferences based on the task statement in order to assess the relevance of target information. They can handle tasks that require them to memorise prior task context. In addition, students at this level can evaluate the relationship between specific statements and a person's overall stance or conclusion about a topic. They can reflect on the strategies that authors use to convey their points, based on salient features of texts (e.g., titles and illustrations). They can compare and contrast claims explicitly made in several texts and assess the reliability of a source based on salient criteria. Texts at Level 4 are often long or complex, and their content or form may not be standard. Many of the tasks are situated in multiple-text settings. The texts and the tasks contain indirect or implicit cues.

Table I.5.1 [2/2] **Summary description of the eight levels of reading proficiency in PISA 2018**

Level	Lower score limit	Percentage of students able to perform tasks at each level or above (OECD average)	Characteristics of tasks
3	480	53.6%	Readers at Level 3 can represent the literal meaning of single or multiple texts in the absence of explicit content or organisational clues. Readers can integrate content and generate both basic and more advanced inferences. They can also integrate several parts of a piece of text in order to identify the main idea, understand a relationship or construe the meaning of a word or phrase when the required information is featured on a single page. They can search for information based on indirect prompts, and locate target information that is not in a prominent position and/or is in the presence of distractors. In some cases, readers at this level recognise the relationship between several pieces of information based on multiple criteria. Level 3 readers can reflect on a piece of text or a small set of texts, and compare and contrast several authors' viewpoints based on explicit information. Reflective tasks at this level may require the reader to perform comparisons, generate explanations or evaluate a feature of the text. Some reflective tasks require readers to demonstrate a detailed understanding of a piece of text dealing with a familiar topic, whereas others require a basic understanding of less-familiar content. Tasks at Level 3 require the reader to take many features into account when comparing, contrasting or categorising information. The required information is often not prominent or there may be a considerable amount of competing information. Texts typical of this level may include other obstacles, such as ideas that are contrary to expectation or negatively worded.
2	407	77.4%	Readers at Level 2 can identify the main idea in a piece of text of moderate length. They can understand relationships or construe meaning within a limited part of the text when the information is not prominent by producing basic inferences, and/or when the text(s) include some distracting information. They can select and access a page in a set based on explicit though sometimes complex prompts, and locate one or more pieces of information based on multiple, partly implicit criteria. Readers at Level 2 can, when explicitly cued, reflect on the overall purpose, or on the purpose of specific details, in texts of moderate length. They can reflect on simple visual or typographical features. They can compare claims and evaluate the reasons supporting them based on short, explicit statements. Tasks at Level 2 may involve comparisons or contrasts based on a single feature in the text. Typical reflective tasks at this level require readers to make a comparison or several connections between the text and outside knowledge by drawing on personal experience and attitudes.
1a	335	92.3%	Readers at Level 1a can understand the literal meaning of sentences or short passages. Readers at this level can also recognise the main theme or the author's purpose in a piece of text about a familiar topic, and make a simple connection between several adjacent pieces of information, or between the given information and their own prior knowledge. They can select a relevant page from a small set based on simple prompts, and locate one or more independent pieces of information within short texts. Level 1a readers can reflect on the overall purpose and on the relative importance of information (e.g. the main idea vs. non-essential detail) in simple texts containing explicit cues. Most tasks at this level contain explicit cues regarding what needs to be done, how to do it, and where in the text(s) readers should focus their attention.
1b	262	98.6%	Readers at Level 1b can evaluate the literal meaning of simple sentences. They can also interpret the literal meaning of texts by making simple connections between adjacent pieces of information in the question and/or the text. Readers at this level can scan for and locate a single piece of prominently placed, explicitly stated information in a single sentence, a short text or a simple list. They can access a relevant page from a small set based on simple prompts when explicit cues are present. Tasks at Level 1b explicitly direct readers to consider relevant factors in the task and in the text. Texts at this level are short and typically provide support to the reader, such as through repetition of information, pictures or familiar symbols. There is minimal competing information.
1c	189	99.9%	Readers at Level 1c can understand and affirm the meaning of short, syntactically simple sentences on a literal level, and read for a clear and simple purpose within a limited amount of time. Tasks at this level involve simple vocabulary and syntactic structures.

https://www.oecd-ilibrary.org/docserver/5f07c754-en.pdf

What are PISA Assessments?

Proficiency Levels - Reading

Readers at Level 6 can comprehend lengthy and abstract texts in which the information of interest is deeply embedded and only indirectly related to the task. …….

Readers at Level 5, can comprehend lengthy texts, inferring which information in the text is relevant even though the information of interest may be easily overlooked. ……

Readers at Level 4, can comprehend extended passages in single or multiple-text settings. They interpret the meaning of nuances of language in a section of text by taking into account the text as a whole. ……

Readers at Level 3, can represent the literal meaning of single or multiple texts in the absence of explicit content or organizational clues.

Readers at Level 2, can identify the main idea in a piece of text of moderate length. …c

Readers at Level 1a, can understand the literal meaning of sentences or short passages. ……

Readers at Level 1b, can evaluate the literal meaning of simple sentences. ……

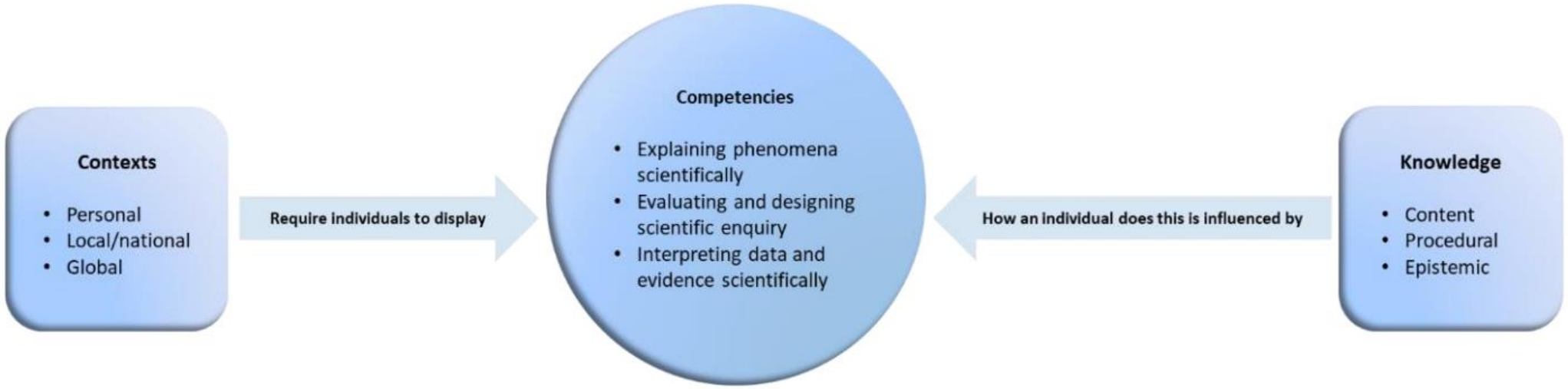
Readers at Level 1c, can understand and affirm the meaning of short, syntactically simple sentences on a literal level, and read for a clear and simple purpose within a limited amount of time. ……

https://www.oecd-ilibrary.org/docserver/5f07c754-en.pdf

What are PISA Assessments?

PISA 2018 SCIENCE FRAMEWORK

Figure 4.1. Inter-relations between the three aspects



https://www.oecd-ilibrary.org/docserver/f30da688-en.pdf

What are PISA Assessments?

PISA 2018 SCIENCE FRAMEWORK

Table 4.2. Contexts for the PISA 2018 scientific literacy assessment

	Personal	Local/National	Global
Health and disease	Maintenance of health, accidents, nutrition	Control of disease, food choices, community health	Epidemics, spread of infectious diseases
Natural resources	Personal consumption of materials and energy	Maintenance of human populations, quality of life, security, production and distribution of food, energy supply	Renewable and non-renewable natural systems, population growth, sustainable use of species
Environmental quality	Environmentally friendly actions, use and disposal of materials and devices	Population distribution, disposal of waste, environmental impact	Biodiversity, ecological sustainability, control of pollution, production and loss of soil/biomass
Hazards	Risk assessments of lifestyle choices	Rapid changes (e.g., earthquakes, severe weather), slow and progressive changes (e.g., coastal erosion, sedimentation), risk assessment	Climate change, impact of modern communication
Frontiers of science and technology	Scientific aspects of hobbies, personal technology, music and sporting activities	New materials, devices and processes, genetic modifications, health technology, transport	Extinction of species, exploration of space, origin and structure of the Universe

https://www.oecd-ilibrary.org/docserver/f30da688-en.pdf

What are PISA Assessments?

Proficiency Levels - Science

At Level 6, students can draw on a range of interrelated scientific ideas and concepts from the physical, life, and earth and space sciences and use content, procedural and epistemic knowledge in order to offer explanatory hypotheses of novel scientific phenomena, events and processes or to make predictions. …….

At Level 5, students can use abstract scientific ideas or concepts to explain unfamiliar and more complex phenomena, events and processes involving multiple causal links. ……

At Level 4, students can use more complex or more abstract content knowledge, which is either provided or recalled, to construct explanations of more complex or less familiar events and processes. ……

At Level 3, students can draw upon moderately complex content knowledge to identify or construct explanations of familiar phenomena. ……

At Level 2, students are able to draw on everyday content knowledge and basic procedural knowledge to identify an appropriate scientific explanation, interpret data and identify the question being addressed in a simple experimental design. ……

At Level 1a, students are able to use basic or everyday content and procedural knowledge to recognize or identify explanations of simple scientific phenomena. ……..

At Level 1b, students can use basic or everyday scientific knowledge to recognize aspects of familiar or simple phenomena. …..

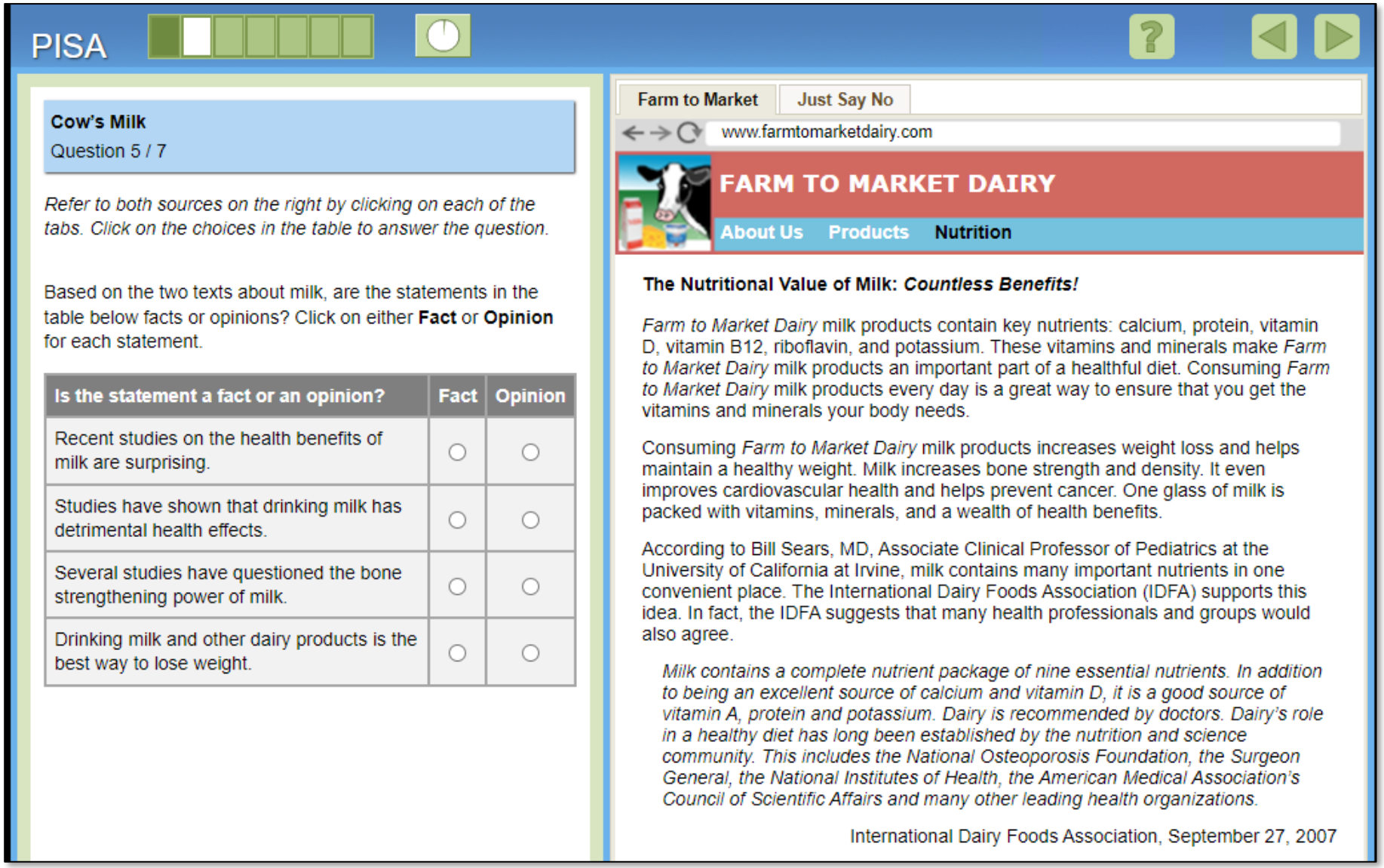
https://www.oecd-ilibrary.org/docserver/5f07c754-en.pdf

Table I.7.1 **Summary description of the seven levels of science proficiency in PISA 2018**

Level	Lower score limit	Percentage of students able to perform tasks at each level or above (OECD average)	Characteristics of tasks
6	708	0.8%	At Level 6, students can draw on a range of interrelated scientific ideas and concepts from the physical, life, and earth and space sciences and use content, procedural and epistemic knowledge in order to offer explanatory hypotheses of novel scientific phenomena, events and processes or to make predictions. In interpreting data and evidence, they are able to discriminate between relevant and irrelevant information and can draw on knowledge external to the normal school curriculum. They can distinguish between arguments that are based on scientific evidence and theory and those based on other considerations. Level 6 students can evaluate competing designs of complex experiments, field studies or simulations and justify their choices.
5	633	6.8%	At Level 5, students can use abstract scientific ideas or concepts to explain unfamiliar and more complex phenomena, events and processes involving multiple causal links. They are able to apply more sophisticated epistemic knowledge to evaluate alternative experimental designs and justify their choices, and use theoretical knowledge to interpret information or make predictions. Level 5 students can evaluate ways of exploring a given question scientifically and identify limitations in interpretations of data sets, including sources and the effects of uncertainty in scientific data.
4	559	24.9%	At Level 4, students can use more complex or more abstract content knowledge, which is either provided or recalled, to construct explanations of more complex or less familiar events and processes. They can conduct experiments involving two or more independent variables in a constrained context. They are able to justify an experimental design by drawing on elements of procedural and epistemic knowledge. Level 4 students can interpret data drawn from a moderately complex data set or less familiar context, draw appropriate conclusions that go beyond the data and provide justifications for their choices.
3	484	52.3%	At Level 3, students can draw upon moderately complex content knowledge to identify or construct explanations of familiar phenomena. In less familiar or more complex situations, they can construct explanations with relevant cueing or support. They can draw on elements of procedural or epistemic knowledge to carry out a simple experiment in a constrained context. Level 3 students are able to distinguish between scientific and non-scientific issues and identify the evidence supporting a scientific claim.
2	410	78.0%	At Level 2, students are able to draw on everyday content knowledge and basic procedural knowledge to identify an appropriate scientific explanation, interpret data and identify the question being addressed in a simple experimental design. They can use basic or everyday scientific knowledge to identify a valid conclusion from a simple data set. Level 2 students demonstrate basic epistemic knowledge by being able to identify questions that can be investigated scientifically.
1a	335	94.1%	At Level 1a, students are able to use basic or everyday content and procedural knowledge to recognise or identify explanations of simple scientific phenomena. With support, they can undertake structured scientific enquiries with no more than two variables. They are able to identify simple causal or correlational relationships and interpret graphical and visual data that require a low level of cognitive demand. Level 1a students can select the best scientific explanation for given data in familiar personal, local and global contexts.
1b	261	99.3%	At Level 1b, students can use basic or everyday scientific knowledge to recognise aspects of familiar or simple phenomena. They are able to identify simple patterns in data, recognise basic scientific terms and follow explicit instructions to carry out a scientific procedure.

Examples of PISA Assessment Resources

PISA 2018 Reading Released Item



https://pisa2018-questions.oecd.org/platform/index.html

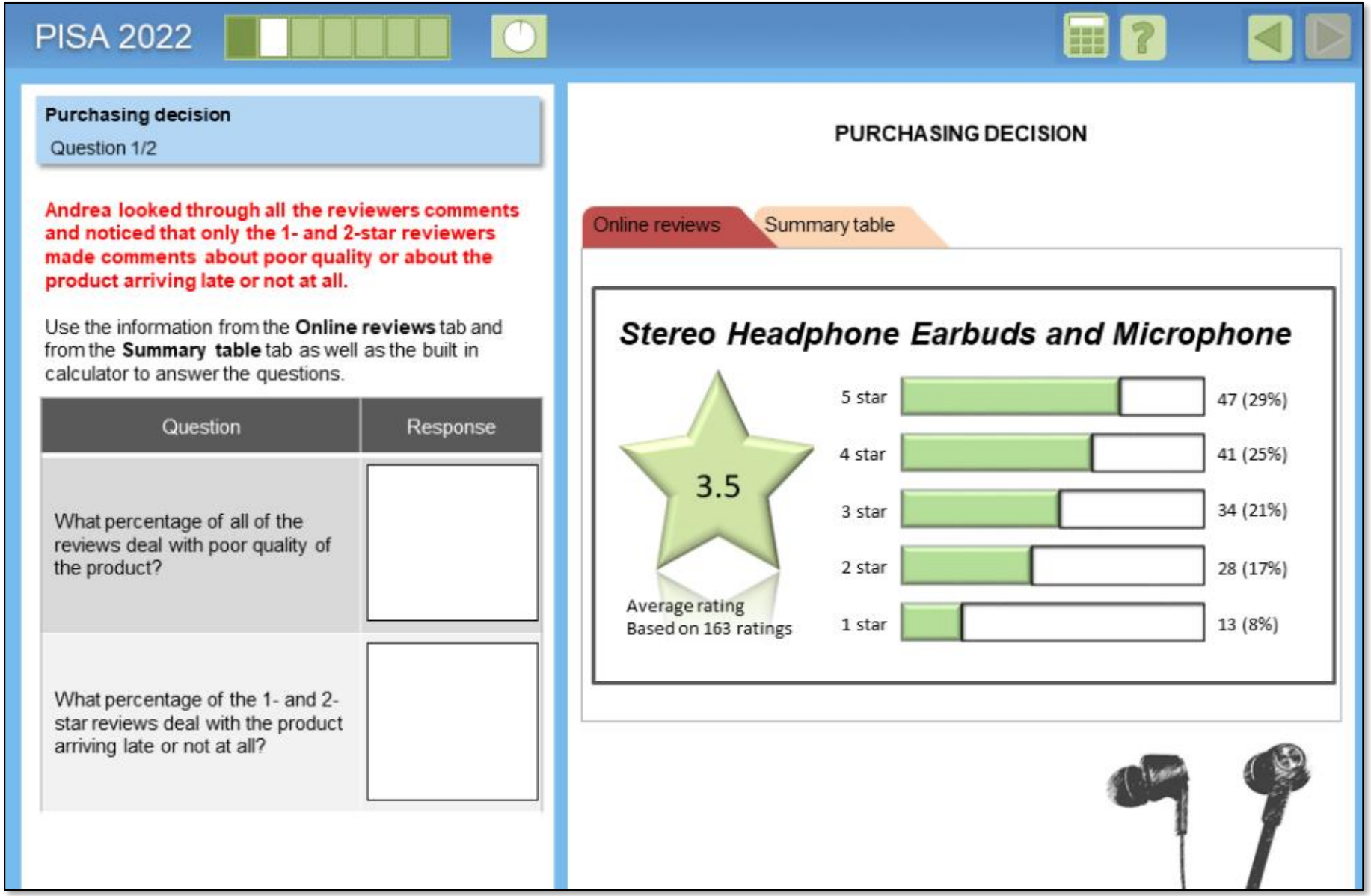
Examples of PISA Assessment Resources

PISA 2018 Reading Released Item

https://pisa2018-questions.oecd.org/platform/index.html

Examples of PISA Assessment Resources

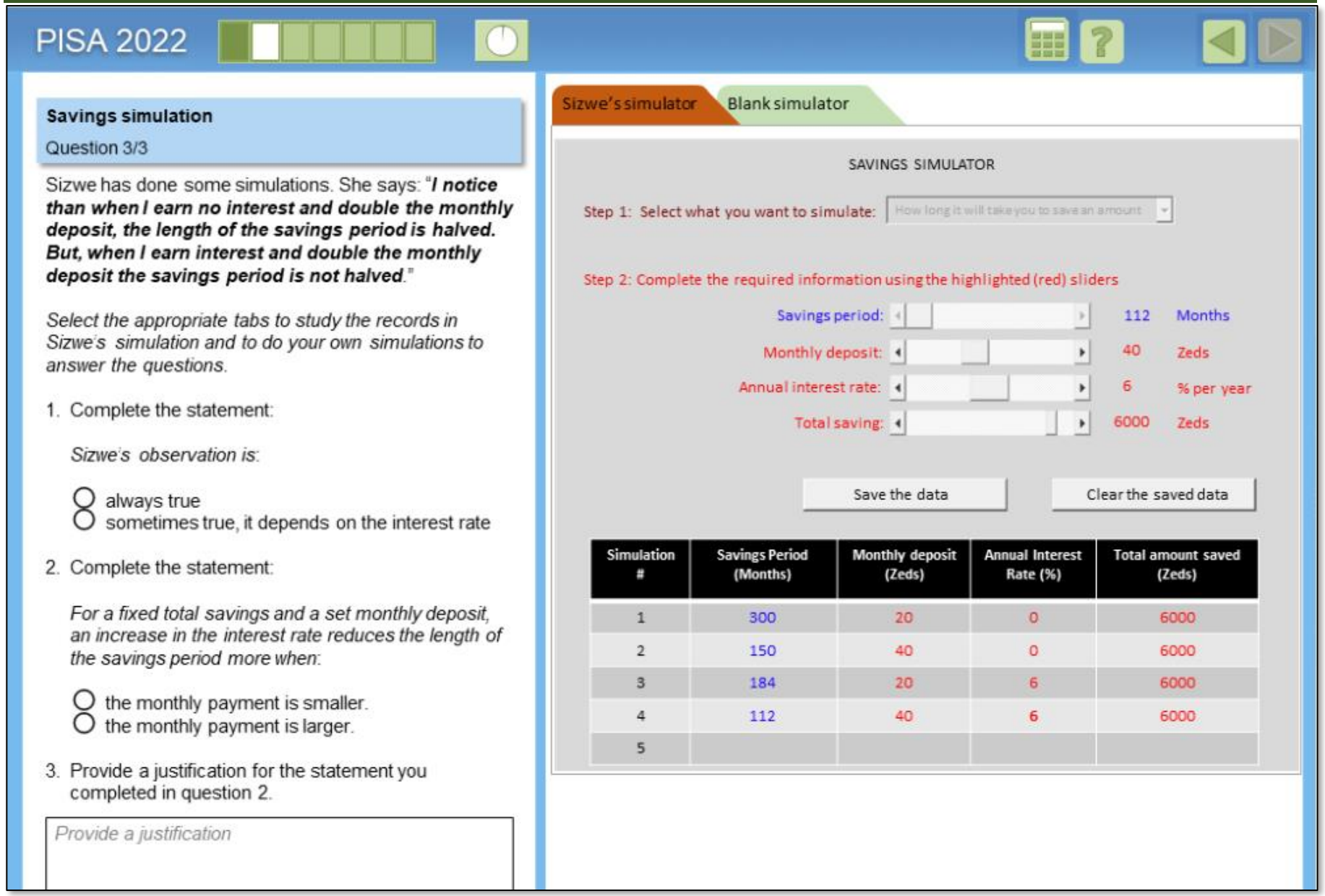
PISA 2018 Mathematics Released Item



https://pisa2022-maths.oecd.org/ca/index.html

Examples of PISA Assessment Resources

PISA 2018 Mathematics Released Item



PISA 2022

Savings simulation

Question 3/3

Sizwe has done some simulations. She says: "***I notice than when I earn no interest and double the monthly deposit, the length of the savings period is halved. But, when I earn interest and double the monthly deposit the savings period is not halved.***"

Select the appropriate tabs to study the records in Sizwe's simulation and to do your own simulations to answer the questions.

1. Complete the statement:

   Sizwe's observation is:

   ○ always true
   ○ sometimes true, it depends on the interest rate

2. Complete the statement:

   For a fixed total savings and a set monthly deposit, an increase in the interest rate reduces the length of the savings period more when:

   ○ the monthly payment is smaller.
   ○ the monthly payment is larger.

3. Provide a justification for the statement you completed in question 2.

Provide a justification

Sizwe's simulator | Blank simulator

SAVINGS SIMULATOR

Step 1: Select what you want to simulate: How long it will take you to save an amount

Step 2: Complete the required information using the highlighted (red) sliders

Savings period:	112	Months
Monthly deposit:	40	Zeds
Annual interest rate:	6	% per year
Total saving:	6000	Zeds

Save the data | Clear the saved data

Simulation #	Savings Period (Months)	Monthly deposit (Zeds)	Annual Interest Rate (%)	Total amount saved (Zeds)
1	300	20	0	6000
2	150	40	0	6000
3	184	20	6	6000
4	112	40	6	6000
5				

https://pisa2022-maths.oecd.org/ca/index.html

Examples of PISA Assessment Resources

PISA 2015 Science Released Item

PISA 2015

Slope-Face Investigation
Question 2 / 2

Refer to "Data Analysis" on the right. Click on a choice and then type an explanation to answer the question.

Two students disagree about why there is a difference in soil moisture between the two slopes.

- Student 1 thinks that the difference in soil moisture is due to a difference in solar radiation on the two slopes.
- Student 2 thinks that the difference in soil moisture is due to a difference in rainfall on the two slopes.

According to the data, which student is correct?

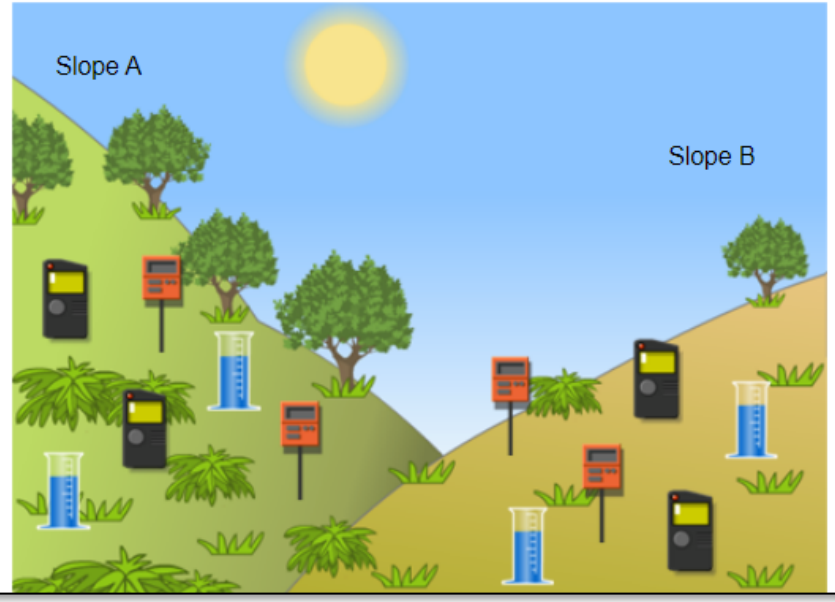
- ○ Student 1
- ○ Student 2

Explain your answer.

SLOPE-FACE INVESTIGATION
Data Analysis

The students take the average of the measurements collected over a given period of time from each pair of instruments on each slope and calculate the uncertainty in these averages. Their results are recorded in the following table. The uncertainty is given following the "±" sign.

	Average Solar Radiation	Average Soil Moisture	Average Rainfall
Slope A	3800 ± 300 MJ/m^2	28 ± 2%	450 ± 40 mm
Slope B	7200 ± 400 MJ/m^2	18 ± 3%	440 ± 50 mm



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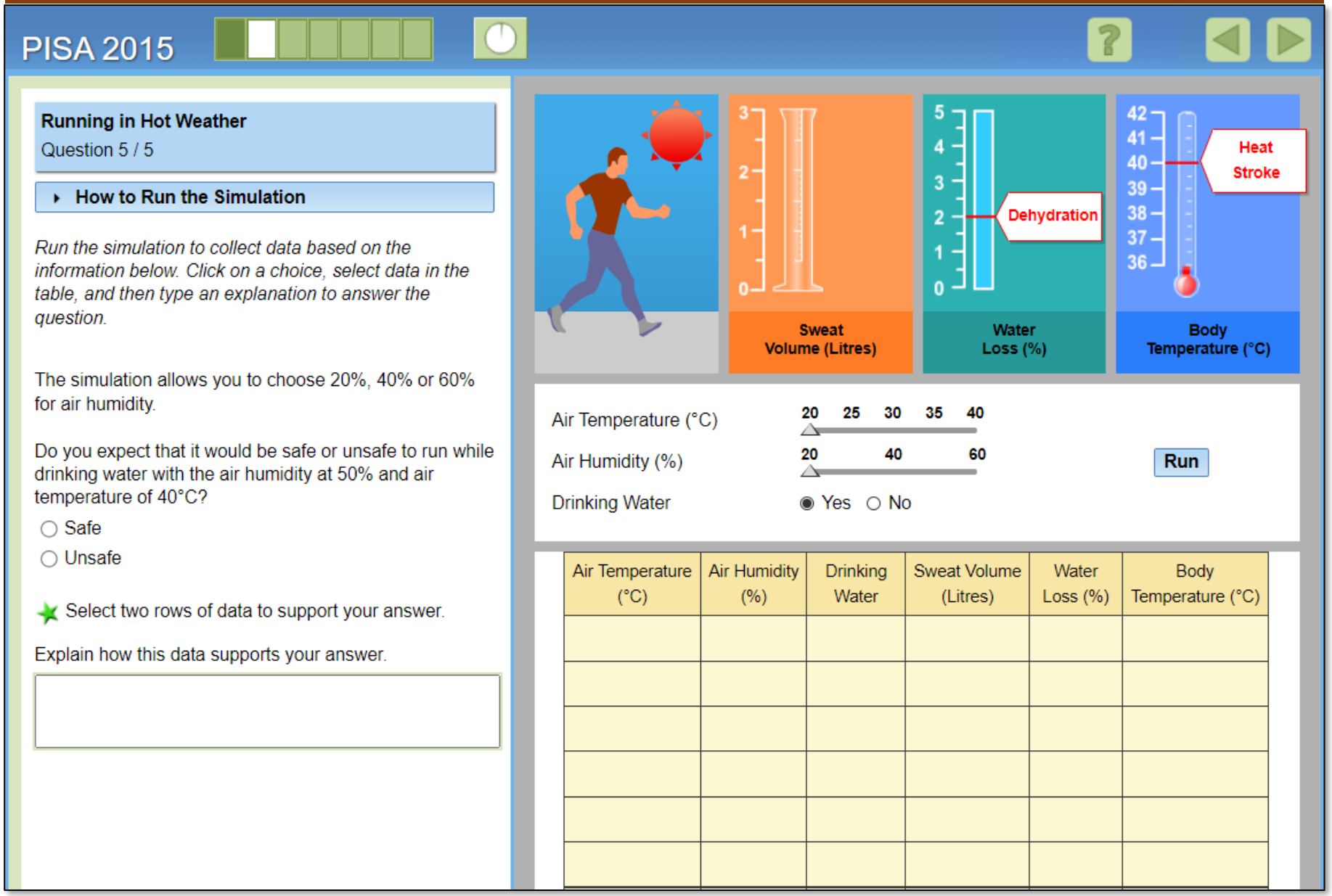
Examples of PISA Assessment Resources

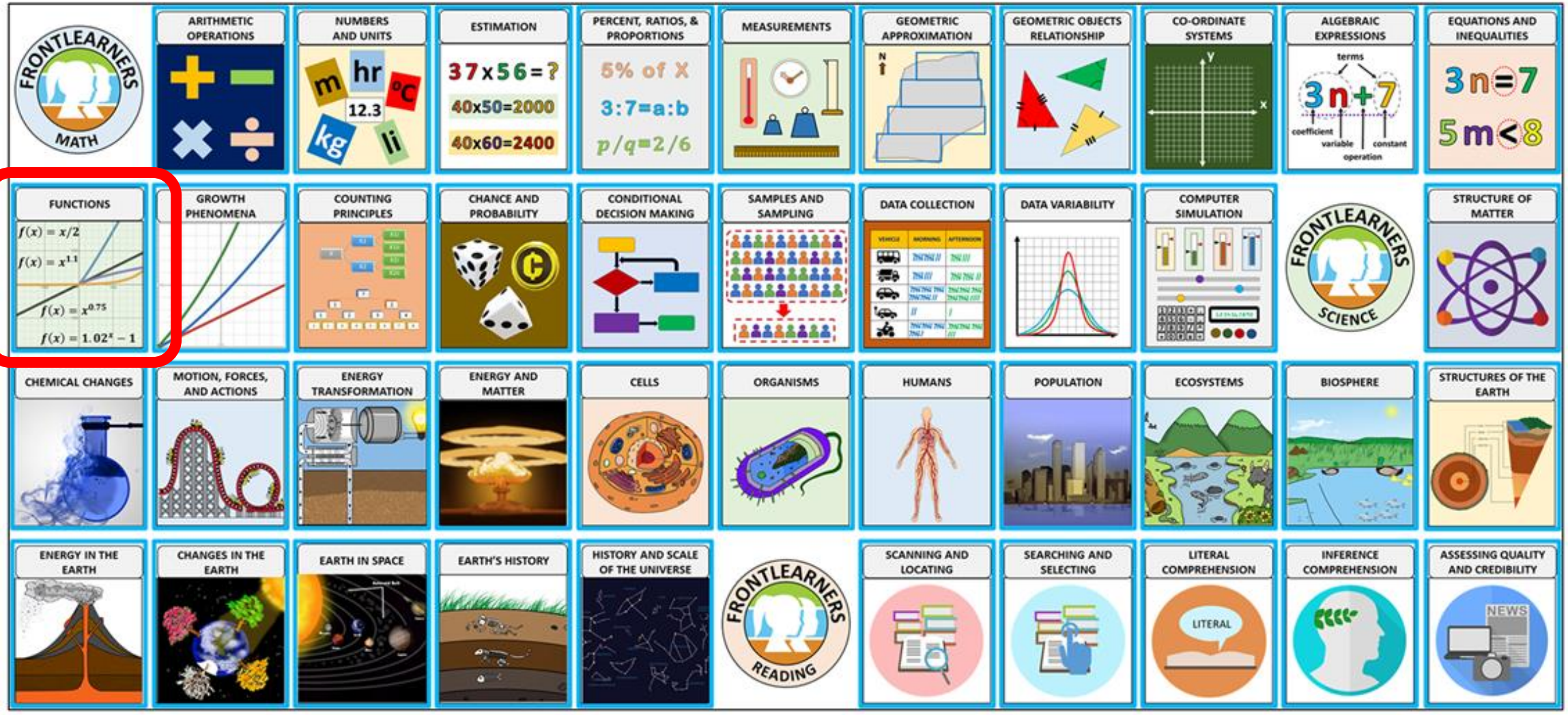
PISA 2015 Science Released Item



https://www.oecd.org/pisa/PISA2015Questions/platform/index.html

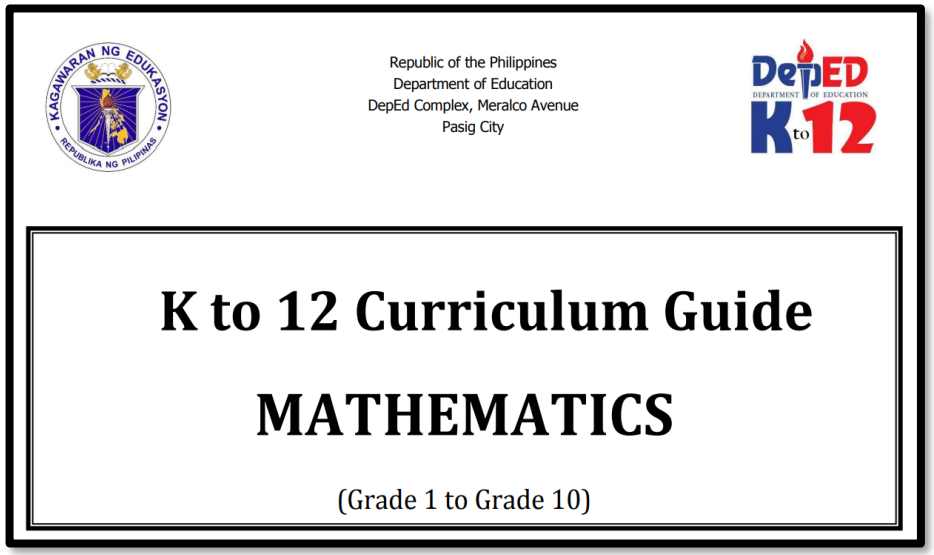
How to develop PISA-Like Assessments Resources?

REFER TO THE PISA ASSESSMENT TOPIC AREAS



How to develop PISA-Like Assessments Resources?

ALIGN ASSESSMENT WITH THE CURRICULUM LEARNING COMPETENCY



Republic of the Philippines
Department of Education
DepEd Complex, Meralco Avenue
Pasig City

K to 12 Curriculum Guide

MATHEMATICS

(Grade 1 to Grade 10)

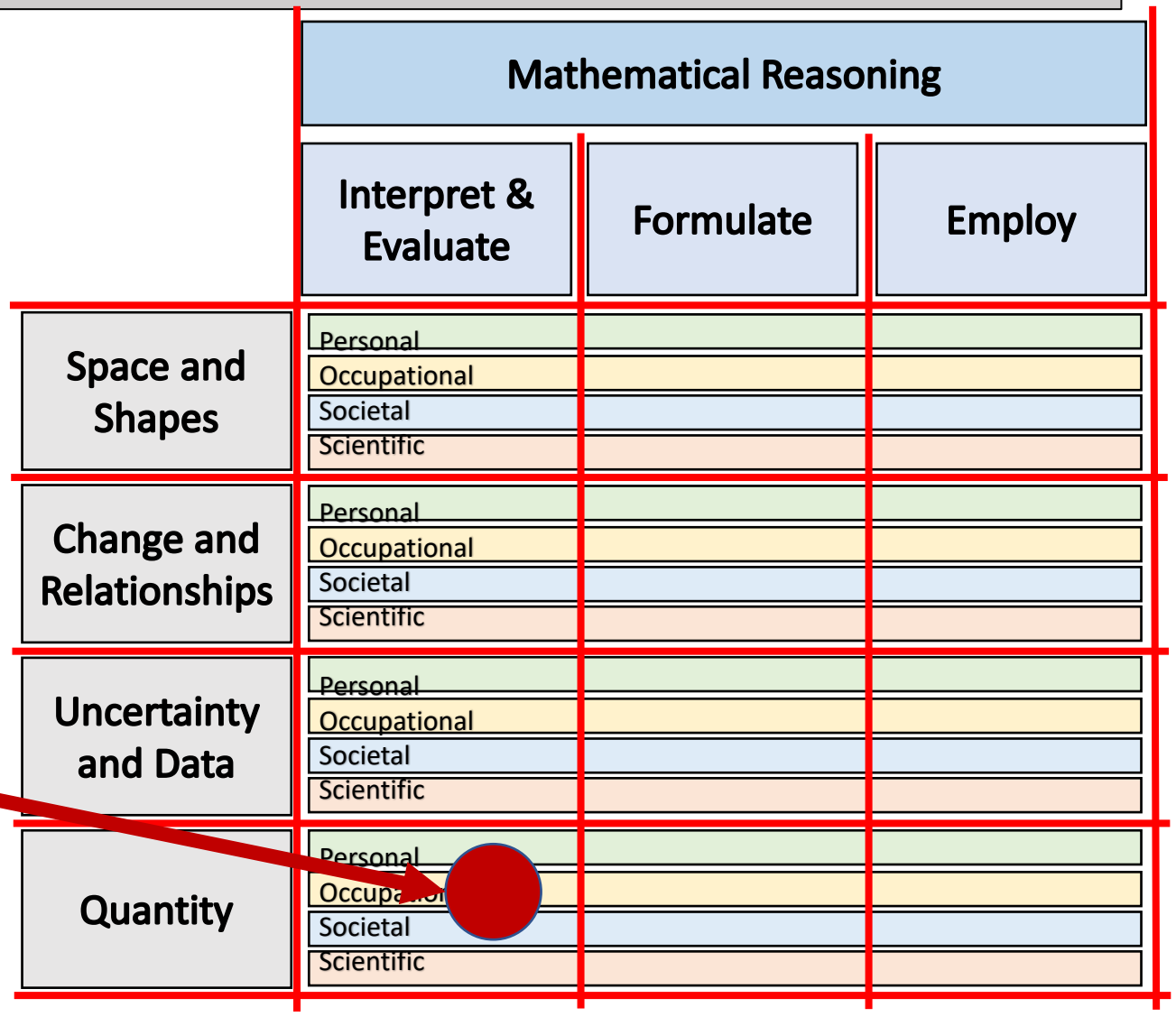
CONTENT	CONTENT STANDARDS	PERFORMANCE STANDARDS	LEARNING COMPETENCY
	The learner...	The learner...	The learner...
			7. illustrates quadratic inequalities
			8. solves quadratic inequalities.
			9. solves problems involving quadratic inequalities.
			10. models real-life situations using quadratic functions.
			11. represents a quadratic function using: (a) table of values; (b) graph; and (c) equation.

Model Real-Life Situation Using Quadratic Function

How to develop PISA-Like Assessments Resources?

MAP THE ASSESSMENT TO THE PISA FRAMEWORK

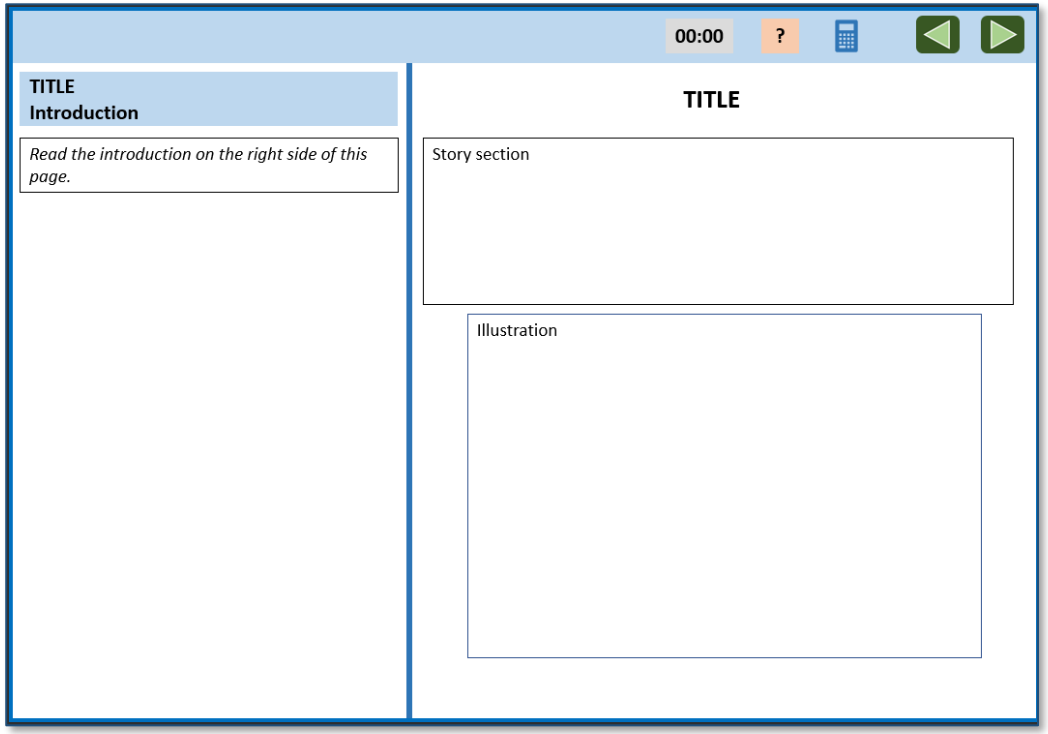
Model Real-Life Situation Using Quadratic Function

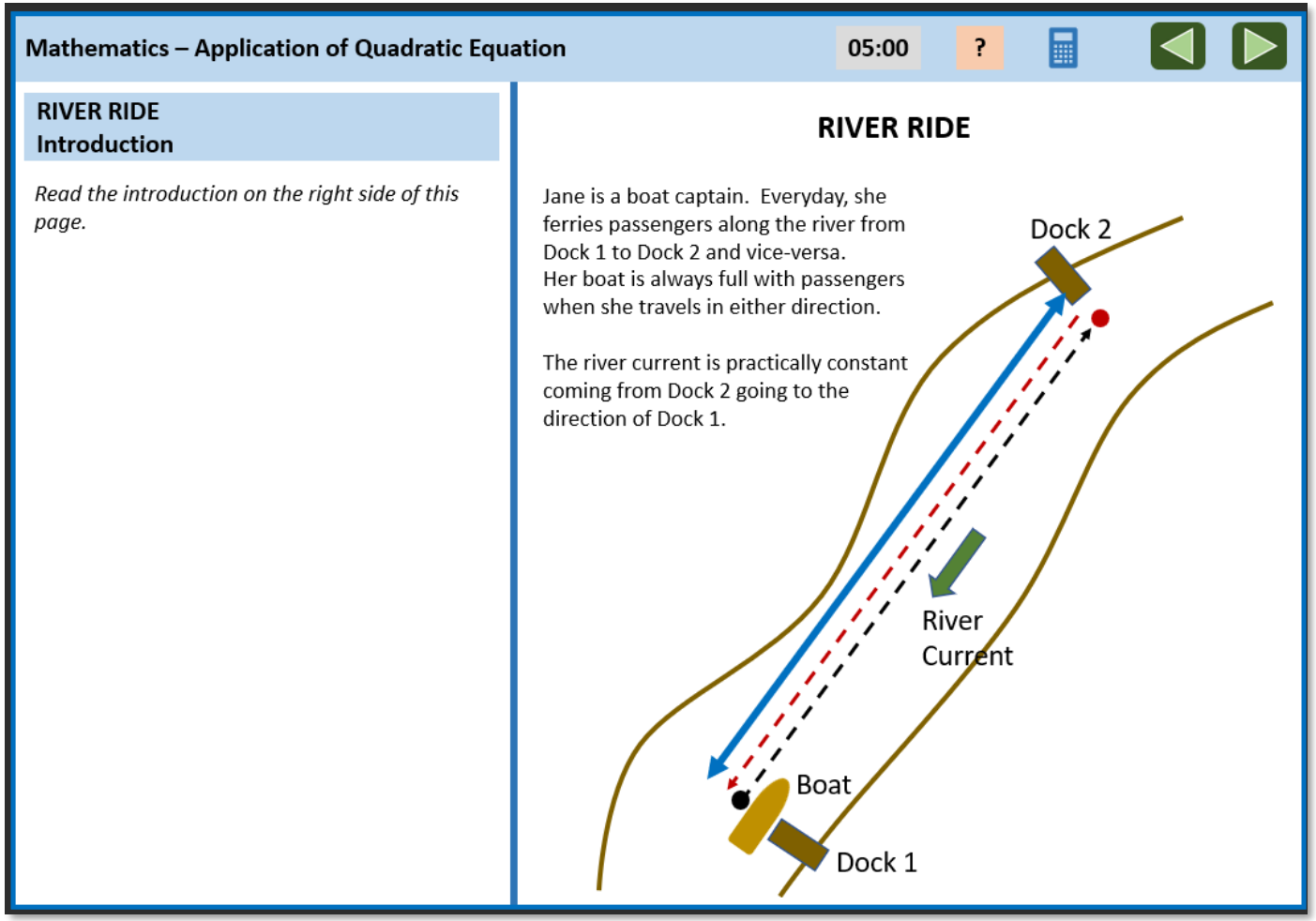


How to develop PISA-Like Assessments Resources?

USE DESIGN TEMPLATES

INTRODUCTION PAGE (Template and Example)

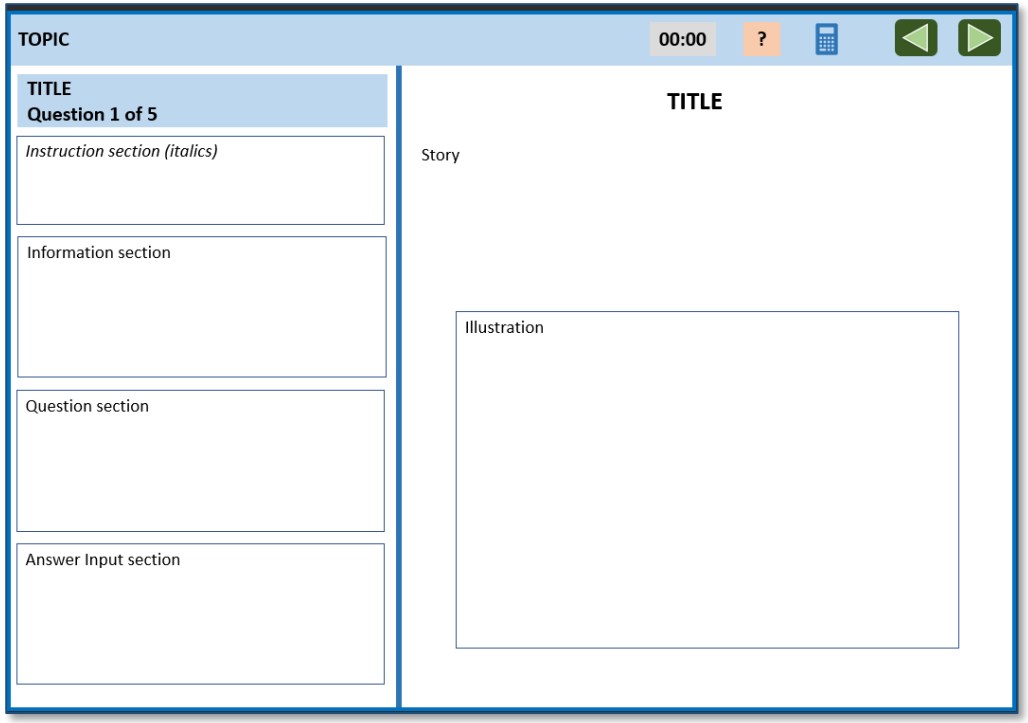


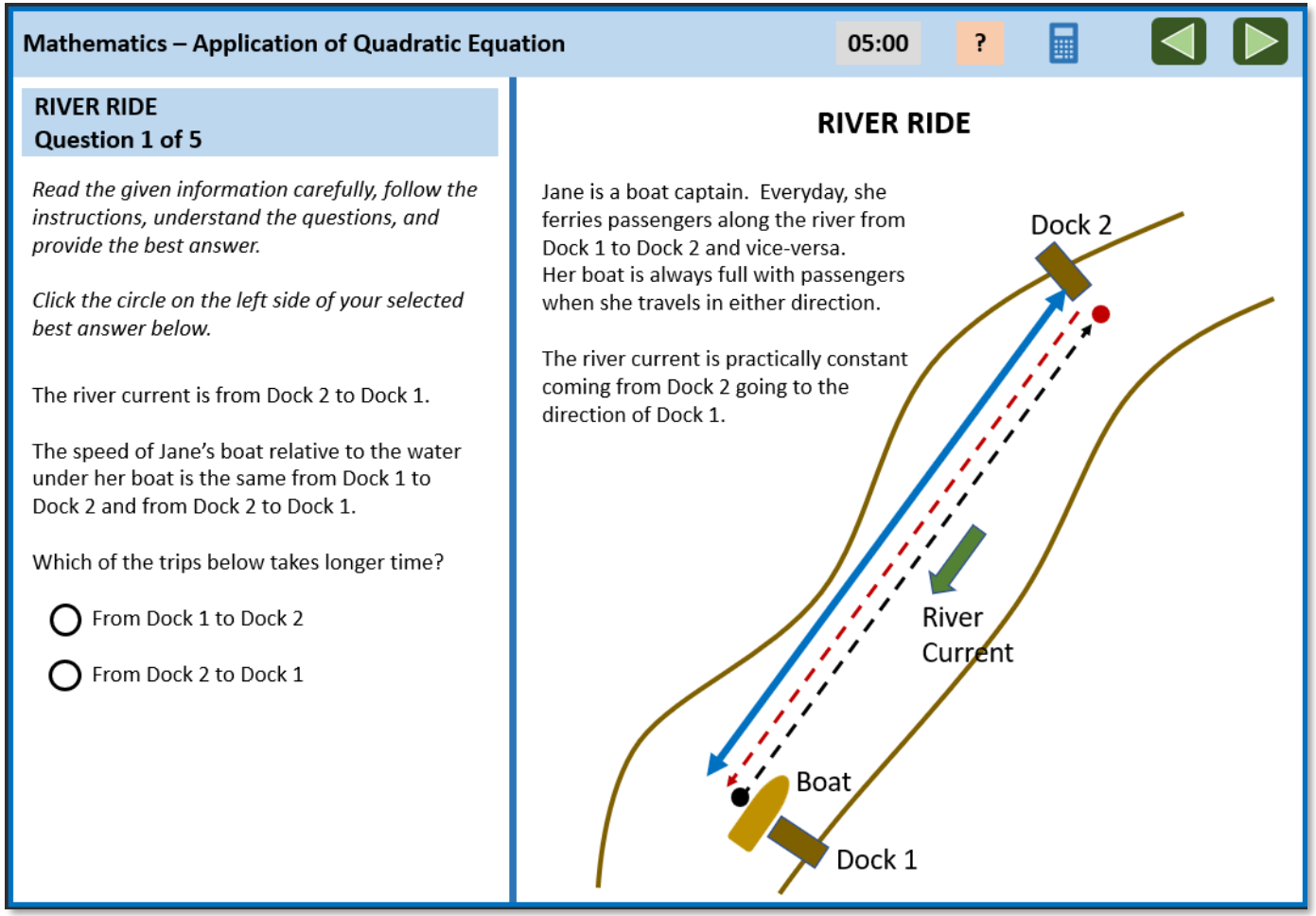


How to develop PISA-Like Assessments Resources?

USE DESIGN TEMPLATES

QUESTION PAGE (Template and Example)

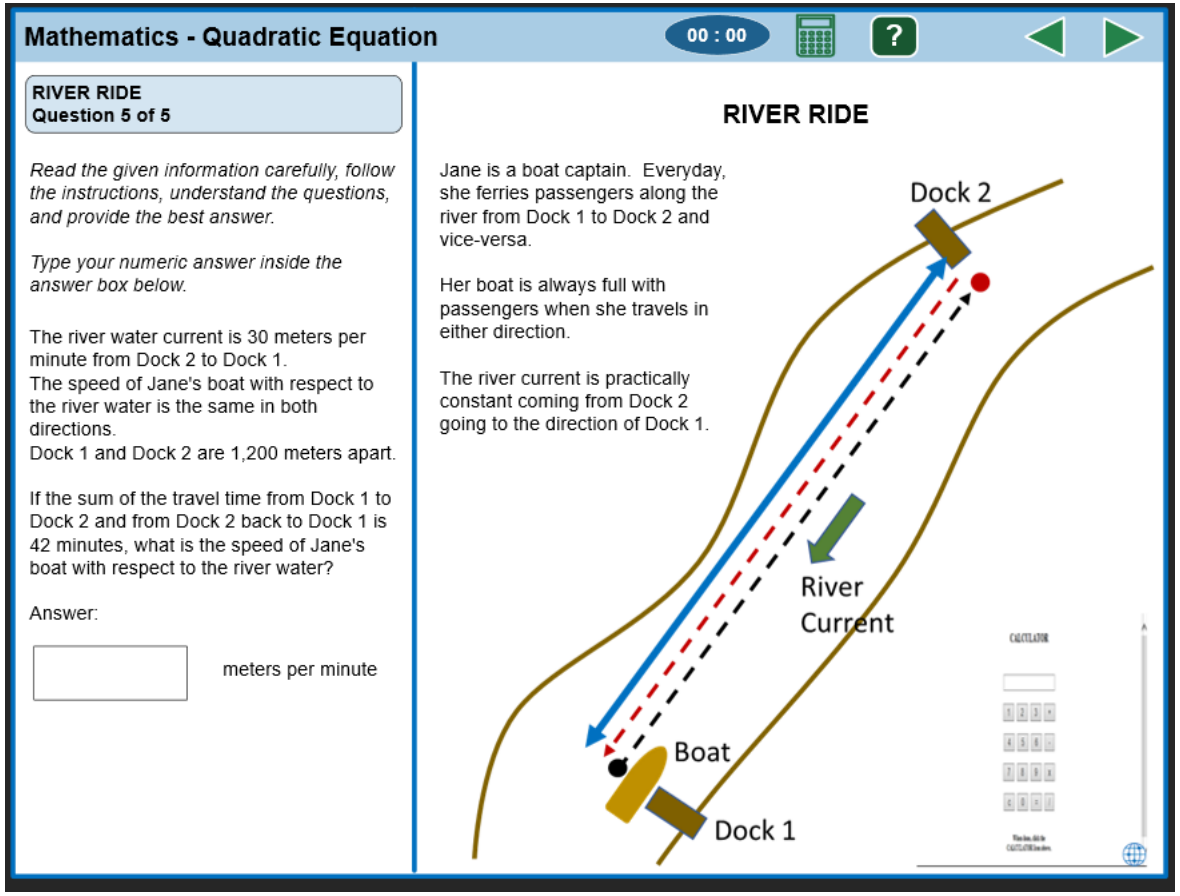




How to develop PISA-Like Assessments Resources?

USE DESIGN TEMPLATES

QUESTION PAGE (Example)



How to develop PISA-Like Assessments Resources?

MAP THE ASSESSMENT TO THE PISA PROFICIENCY LEVEL

Proficiency Levels - Mathematics

At Level 6, students can conceptualize, generalize and utilize information based on their investigations and modelling of complex problem situations, and can use their knowledge in relatively non-standard contexts. …….

At Level 5, students can develop and work with models for complex situations, identifying constraints and specifying assumptions. ……

At Level 4, students can work effectively with explicit models for complex, concrete situations that may involve constraints or call for making assumptions. ……

At Level 3, students can execute clearly described procedures, including those that require sequential decisions. ……

At Level 2, students can interpret and recognize situations in contexts that require no more than direct inference. ……

At Level 1, students can answer questions involving familiar contexts where all relevant information is present and the questions are clearly defined. ……..

Model Real-Life Situation Using Quadratic Function

Question 5

Question 1

https://www.oecd-ilibrary.org/docserver/5f07c754-en.pdf

How to develop PISA-Like Assessments Resources?

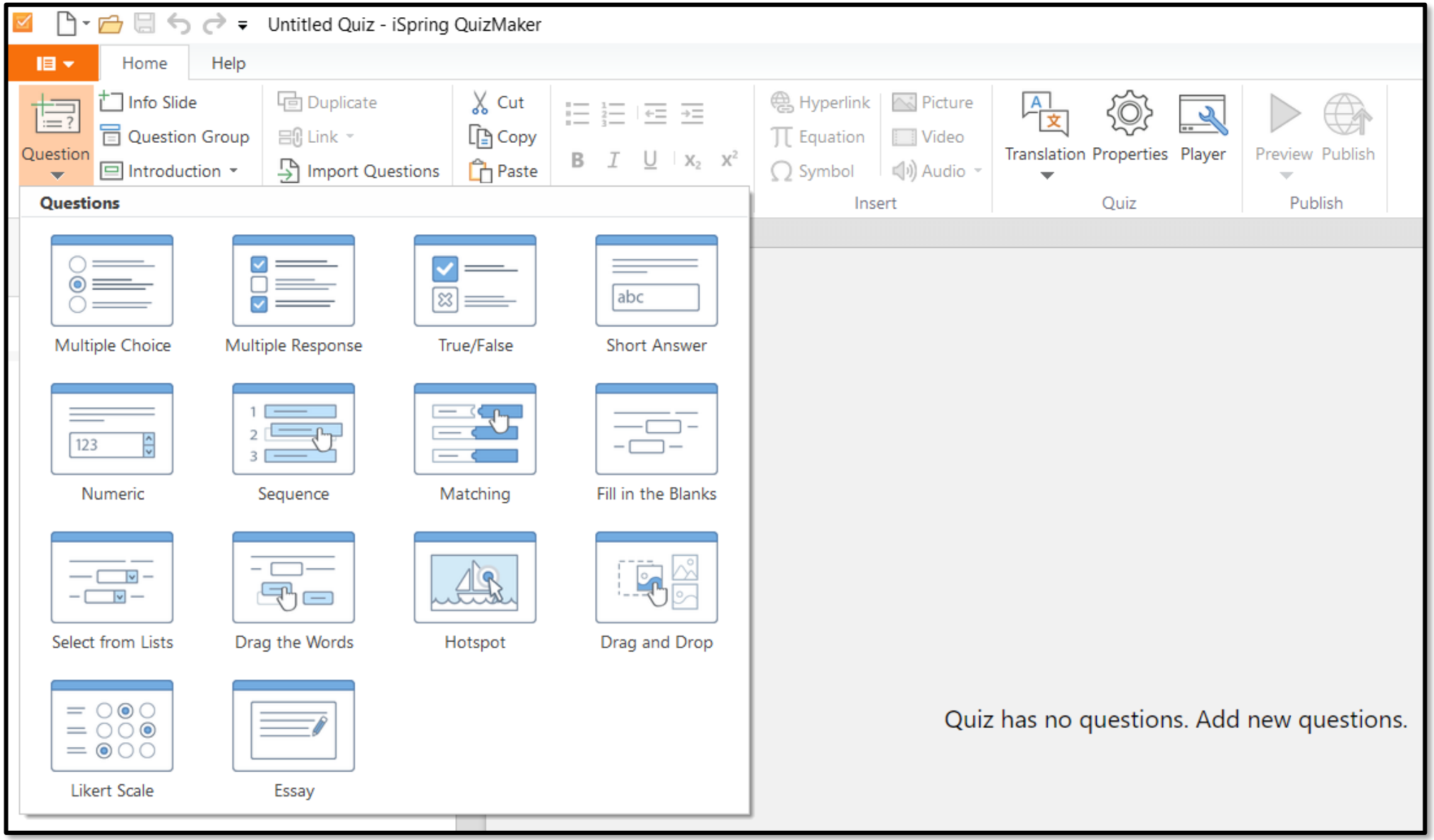
USE AUTHORING AND CONVERTER TOOLS

DRAFT/DESIGN	INTERACTIVE QUESTIONS & CONVERTER TO HTML5/SCORM			SPECIAL FUNCTIONS
				
PowerPoint *(Authoring)*	**iSpring Presenter** *(PowerPoint Plug-in or Stand-alone)*	**Articulate Studio** *(PowerPoint Plug-in or Stand-alone)*	**ActivePresenter** *(Stand-alone, can import PowerPoint)*	**JavaScript** *(Programming)*

How to develop PISA-Like Assessments Resources?

USE AUTHORING AND CONVERTER TOOLS

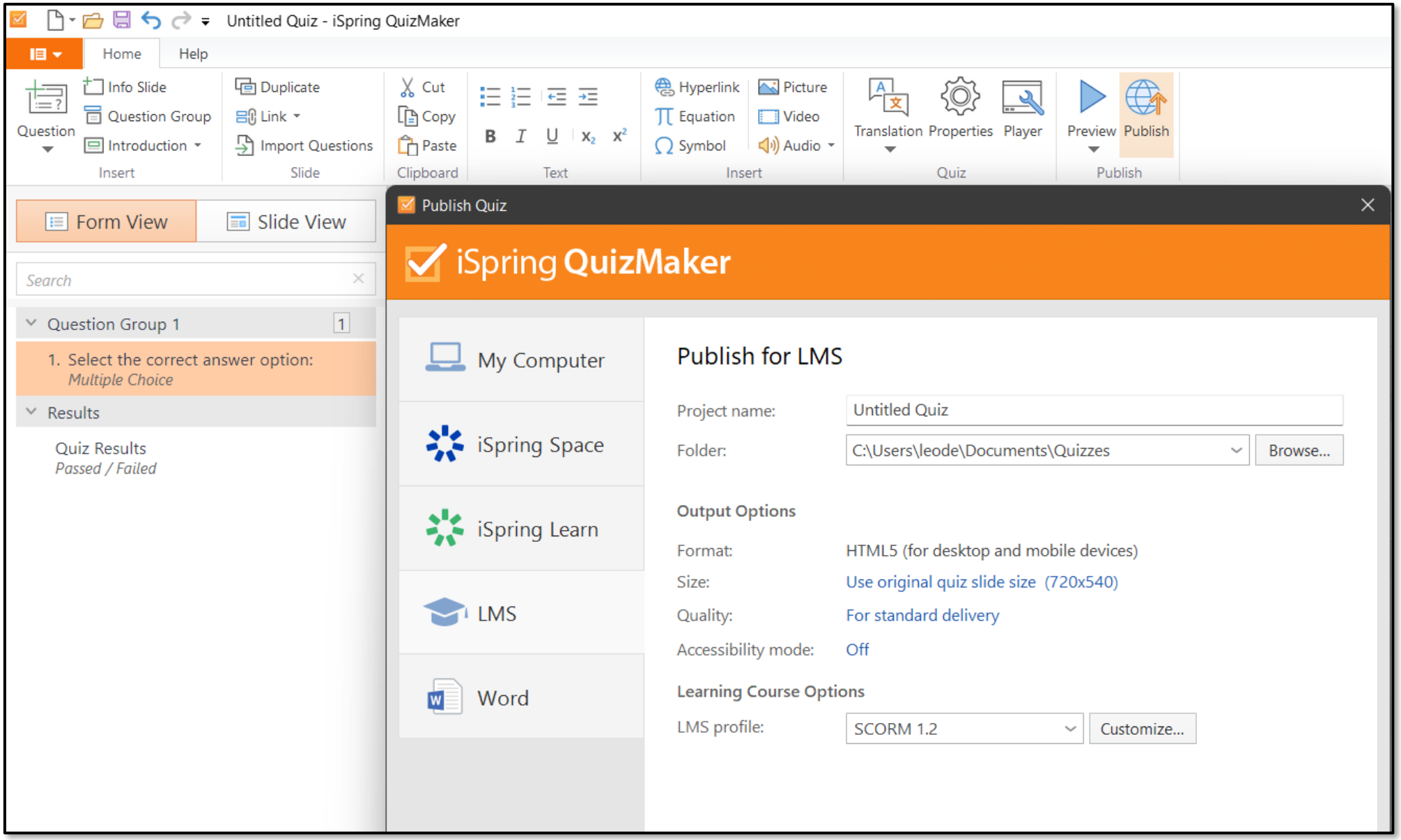
iSpring QuizMaker



How to develop PISA-Like Assessments Resources?

USE AUTHORING AND CONVERTER TOOLS

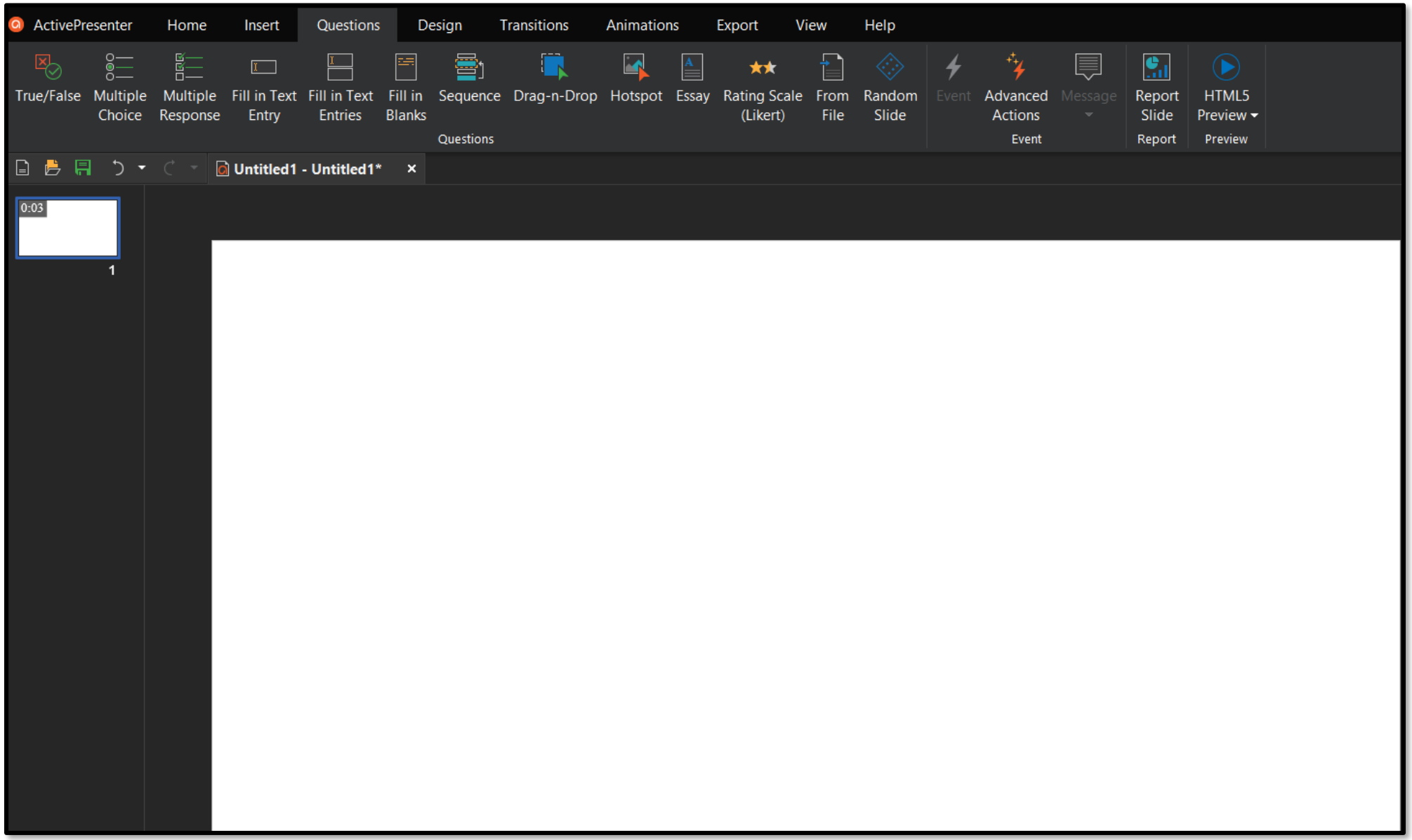
iSpring QuizMaker



How to develop PISA-Like Assessments Resources?

USE AUTHORING AND CONVERTER TOOLS

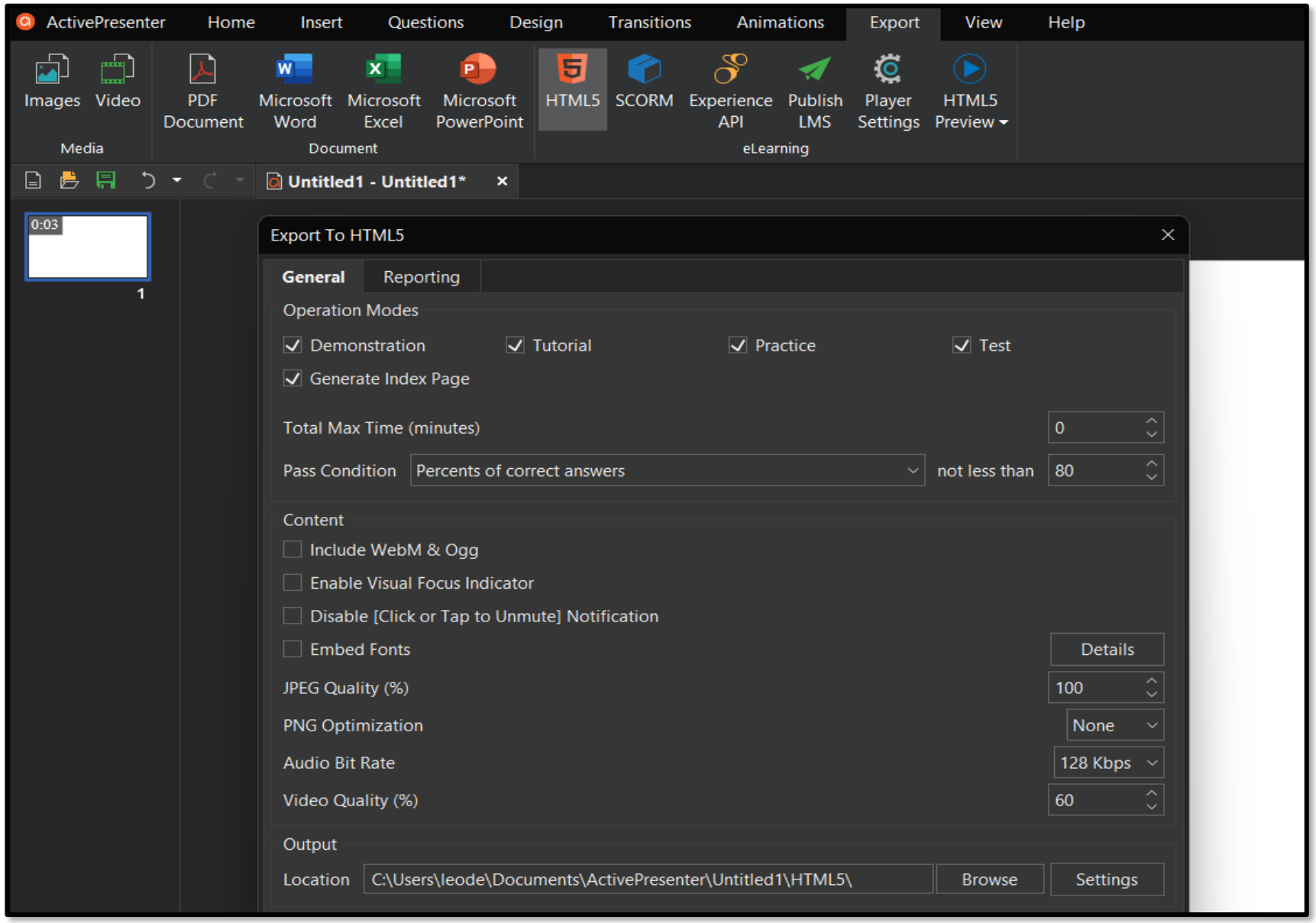
ActivePresenter



How to develop PISA-Like Assessments Resources?

USE AUTHORING AND CONVERTER TOOLS

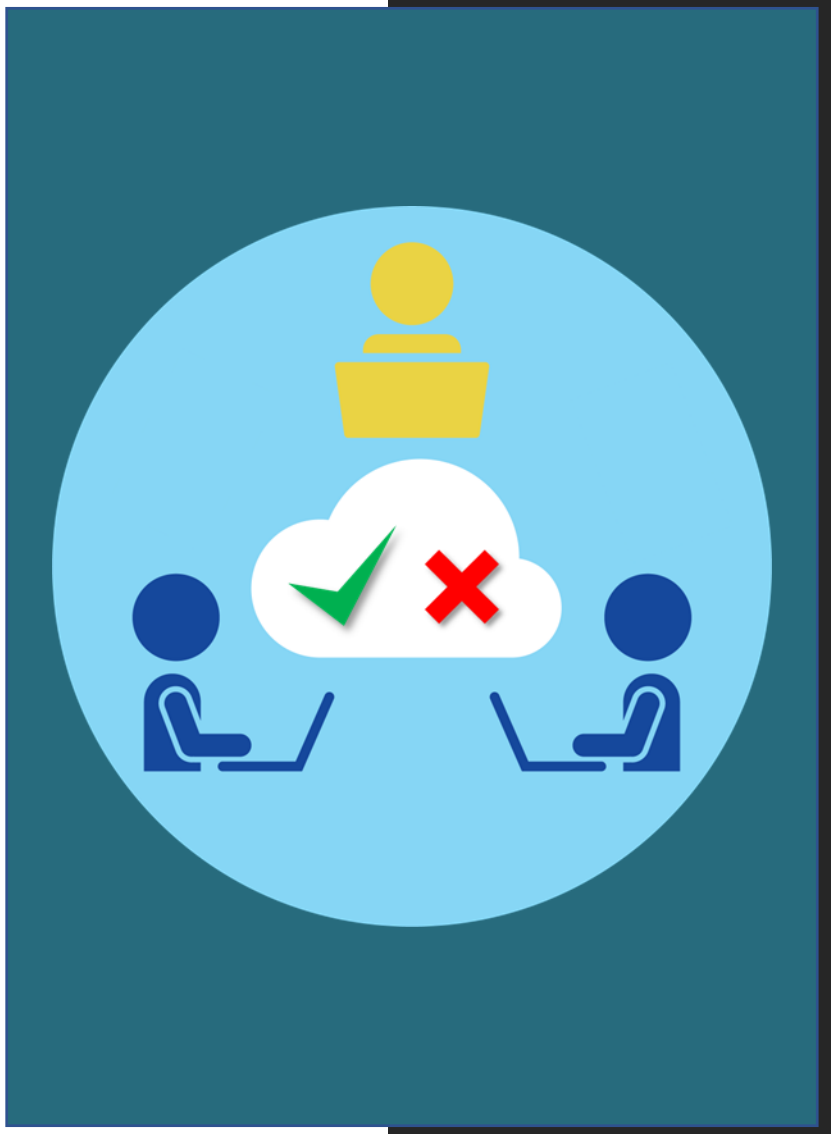
ActivePresenter



How to develop PISA-Like Assessments Resources?

LIVE DEMO

Developing Computer-Based PISA-Like Assessment Resources



THANK YOU

Expert in E-Learning Technology with more than 23 years of e-learning experience

EDUCATION:

Student	Asian Institute of Management – PhD in Data Science
MLA	Harvard University (Dean's Prize for Best Thesis)
MBA	University of the Philippines
BSME	University of the Philippines (cum laude, 1st Place Board Exam)
HS	Philippine Science High School

WORK:

Chairperson - Frontlearners, Inc.
Former Highly Technical Consultant (eLearning) – Department of Education
Former Asia Pacific Manager - Shell Eastern Petroleum Pte. Ltd., SG
Former Vice President – Pilipinas Shell Petroleum Corporation, PH

HONORS / AWARDS:

Inventor – Pocket-size Stand-alone Learning Server
Dean's Prize for Best MLA Thesis
Bantayog Awards - Natatanging CamNortenyo
Model OFW Family of the Year Award - National Winner - Land-based
Grand Prize Winner "Startups to the ResQ" – DRRM Prep-Net
Top Ten Startups Competition – Frontlearners, Inc.
Special Citation – Catholic Mass Media Awards for Using Internet for Educ.
First Place – Mechanical Engineering Board Examination
Cum Laude – BS Mechanical Engineering