

Literacy – sample items

Literacy is the ability to understand and use information from written texts in a variety of contexts to achieve goals and develop knowledge and potential. This is a core requirement for developing higher-order skills and for positive economic and social outcomes. Previous studies have shown reading literacy to be closely linked to positive outcomes at work, to social participation, and to lifelong learning.

Literacy - Sample Items


Two examples of the literacy items used in the Survey of Adult Skills (PIAAC) are presented below. Both use print-based stimuli. The sample problem-solving items presented separately give an idea of the type of “digital” stimulus material used.

The items are presented in the form delivered by the computer-based version of the assessment. To answer the questions, respondents highlight words and phrases or click on the appropriate location on the screen using a mouse.

Sample Item 1: Preschool rules


Preschool rules represents an item of average difficulty and focuses on the following aspects of the literacy construct:

<i>Cognitive process</i>	Access and identify
<i>Context</i>	Personal
<i>Medium</i>	Print



Look at the list of preschool rules. Highlight information in the list to answer the question below.

What is the latest time that children should arrive at preschool?



Preschool Rules

Welcome to our Preschool! We are looking forward to a great year of fun, learning and getting to know each other. Please take a moment to review our preschool rules.

- Please have your child here by 9:00 am.
- Bring a small blanket or pillow and/or a small soft toy for naptime.
- Dress your child comfortably and bring a change of clothing.
- Please no jewelry or candy. If your child has a birthday please talk to your child's teacher about a special snack for the children.
- Please bring your child fully dressed, no pajamas.
- Please sign in with your full signature. This is a licensing regulation. Thank you.
- Breakfast will be served until 7:30 am.
- Medications have to be in original, labeled containers and must be signed into the medication sheet located in each classroom.
- If you have any questions, please talk to your classroom teacher or to Ms. Marlene or Ms. Tree.

Sample Items 2 and 3: Physical Exercise Equipment

In many cases, several questions are associated with the same stimulus material. In the case of the stimulus relating to physical exercise equipment, there are two associated questions or test items.

The first item represents a relatively easy item and focuses on the following aspects of the literacy construct:

Cognitive process	Access and identify
Context	Personal
Medium	Print

Respondents answer the question by clicking on the cell in the chart that contains information about exercise equipment. Each of the cells and all of the images are “clickable” and multiple cells can be selected.

Look at the exercise equipment chart. Click on the chart to answer the question below.

Which muscles will benefit most if you use the gym bench?

Physical Exercise Equipment

How to choose?

- Decide what effect you want the exercise to have on your body.
- Assess the space you have available at home.
- Choose the equipment that suits your objectives. If necessary ask a specialist for advice.

For example:

OBJECTIVE	STRATEGY	EQUIPMENT
Burn off calories	Cardiovascular exercises	Rowing machine, Bicycle, Skimachine, Treadmill, Stairs, ...
Strengthen your muscles	Endurance exercises	Bench for Press-ups, Weights and Dumbbells, Elastic Tubes, ...

Effects on...	Cardio-Training						Muscle Building							
	Exercise bicycle	Rowing machine	Stepper	Treadmill	Air trainer	Dumbbells, weights	Elastic	Gym bench	Muscle-building bench	Multi-trainer	AB trimmer	AB shaper	AB roller	
Arm strength	Ineff-ective	Good	Average	Ineff-ective	Good	Very good	Very good	Good	Good	Good	Very good	Good	Good	
Leg strength	Good	Very good	Average	Very good	Good	Ineff-ective	Good	Average	Good	Good	Ineff-ective	Good	Good	
Abdominal muscles	Average	Very good	Good	Good	Average	Ineff-ective	Good	Very good	Good	Average	Very good	Very good	Very good	
Overall muscle building	Ineff-ective	Very good	Ineff-ective	Average	Ineff-ective	Average	Good	Good	Good	Average	Good	Good	Good	
Heart/arteries	Very good	Good	Very good	Very good	Good	Ineff-ective	Average	Average	Average	Good	Average	Average	Average	
Flexibility	Ineff-ective	Good	Ineff-ective	Ineff-ective	Average	Average	Average	Good	Ineff-ective	Ineff-ective	Average	Good	Good	
Joints	Good	Very good	Good	Good	Good	Good	Average	Average	Good	Good	Average	Average	Average	
Slimming	Good	Average	Very good	Good	Good	Ineff-ective	Average	Good	Average	Average	Good	Good	Good	
Dangers	None	Back	None	Legs		It is best to learn to use these types of apparatus properly before you make a major effort								

The second item represents a relatively easy item and focuses on the following aspects of the literacy construct:

<i>Cognitive process</i>	Integrate and interpret
<i>Context</i>	Personal
<i>Medium</i>	Print

Look at the exercise equipment chart. Click on the chart to answer the question below.

Which piece of equipment listed received the largest number of "Ineffective" ratings?

Physical Exercise Equipment

How to choose?

- 1 Decide what effect you want the exercise to have on your body.
- 2 Assess the space you have available at home.
- 3 Choose the equipment that suits your objectives. If necessary ask a specialist for advice.

For example:

OBJECTIVE	STRATEGY	EQUIPMENT
Burn off calories	Cardiovascular exercises	Rowing machine, Bicycle, Skimachine, Treadmill, Stairs, ...
Strengthen your muscles	Endurance exercises	Bench for Press-ups, Weights and Dumbbells, Elastic Tubes,

Effects on...	Cardio-Training					Muscle Building							
	Exercise bicycle	Rowing machine	Stepper	Tread-mill	Air trainer	Dumb-bells weights	Elastic	Gym bench	Muscle-building bench	Multi-trainer	AB trimmer	AB shaper	AB roller
Arm strength	Ineff-ective	Good	Average	Ineff-ective	Good	Very good	Very good	Good	Good	Good	Very good	Good	Good
Leg strength	Good	Very good	Average	Very good	Good	Ineff-ective	Good	Average	Good	Good	Ineff-ective	Good	Good
Abdominal muscles	Average	Very good	Good	Good	Average	Ineff-ective	Good	Very good	Good	Average	Very good	Very good	Very good
Overall muscle building	Ineff-ective	Very good	Ineff-ective	Average	Ineff-ective	Average	Good	Good	Good	Average	Good	Good	Good
Heart/arteries	Very good	Good	Very good	Very good	Good	Ineff-ective	Average	Average	Average	Good	Average	Average	Average
Flexibility	Ineff-ective	Good	Ineff-ective	Ineff-ective	Average	Average	Average	Good	Ineff-ective	Ineff-ective	Average	Good	Good
Joints	Good	Very good	Good	Good	Good	Good	Average	Average	Good	Good	Average	Average	Average
Slimming	Good	Average	Very good	Good	Good	Ineff-ective	Average	Good	Average	Average	Good	Good	Good
Dangers	None	Back	None	Legs		It is best to learn to use these types of apparatus properly before you make a major effort							

Reading Components – sample items

The literacy assessment in the Survey of adult skills is complemented by a test of “reading components” skills to provide more detailed information about adults with poor literacy skills. These are the basic set of decoding skills that enable individuals to extract meaning from written texts: knowledge of vocabulary, ability to process meaning at the level of the sentence, and fluency in reading passages of text.

Reading Components - Sample Items

Print vocabulary

Items testing print vocabulary consist of a picture of an object and four printed words, one of which refers to the pictured object. Respondents are asked to circle the word that matches the picture.



ear

egg

lip

jar

Sentence processing

The sentence-processing items require the respondent to assess whether a sentence makes sense in terms of the properties of the real world or the internal logic of the sentence. The respondent reads the sentence and circles YES if the sentence makes sense or NO if the sentence does not make sense.

Three girls ate the song.	YES	NO
The man drove the green car.	YES	NO
The lightest balloon floated in the bright sky.	YES	NO
A comfortable pillow is soft and rocky.	YES	NO
A person who is twenty years old is older than a person who is thirty years old.	YES	NO

Passage comprehension

In items assessing passage comprehension, respondents are asked to read a passage in which they are required at certain points to select the word that makes sense from the two alternatives provided.

To the editor: Yesterday, it was announced that the cost of riding the bus will increase. The price will go up by twenty percent starting next wife / month. As someone who rides the bus every day, I am upset by this foot / increase. I understand that the cost of gasoline / student has risen. I also understand that riders have to pay a fair price / snake for bus service. I am willing to pay a little more because I rely on the bus to get to object / work. But an increase / uncle of twenty percent is too much.

This increase is especially difficult to accept when you see the city's plans to build a new sports stadium. The government will spend millions on this project even though we already have a science / stadium. If we delay the stadium, some of that money can be used to offset the increase in bus fares / views. Then, in a few years, we can decide if we really do need a new sports cloth / arena. Please let the city council know you care about this issue by attending the next public meeting / frames.

Numeracy – sample items

In the Survey of adult skills (PIAAC), numeracy is defined as the ability to use, apply, interpret, and communicate mathematical information and ideas. It is an essential skill in an age when individuals encounter an increasing amount and wide range of quantitative and mathematical information in their daily lives. Numeracy is a skill parallel to reading literacy, and it is important to assess how these competencies interact, since they are distributed differently across subgroups of the population.

The items are presented in the form delivered by the computer-based version of the assessment. To answer the questions, respondents need to click in the appropriate box, and/or type figures in the space provided.


Numeracy - Sample Items

Sample Item 1: Thermometer

This item (of low difficulty) focuses on the following aspects of the numeracy construct:

<i>Content</i>	Dimension and shape
<i>Process</i>	Act upon, use (measure)
<i>Context</i>	Every day or work

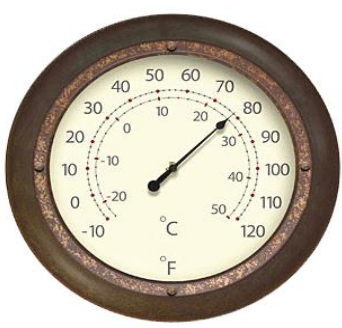
Respondents are asked to type in a numerical response based on the graphic provided.




Look at the thermometer. Using the number keys, type your answer to the question below.

If the temperature shown decreases by 30 degrees Celsius, what would the temperature be in degrees Celsius (°C)?

 °C






Sample Item 2: Wind power stations

This sample item (of medium difficulty) focuses on the following aspects of the numeracy construct:

Content	Quantity and Number
Process	Act upon, use (compute)
Context	Community and society

Section _4


Unit 11 - Question 1/1

Read the article about wind power stations. Using the number keys, type your answer to the question below.

How many wind power stations would be needed to replace the power generated by the nuclear reactor?

Wind Power Stations


In 2005, the Swedish government closed the last nuclear reactor at the Barsebäck power plant. The reactor had been generating an average energy output of 3,572 GWh of electrical energy per year.



Work continues in Sweden on installing large offshore wind farms using wind power stations. Each wind power station produces about 6,000 MWh of electrical energy per year.

For your information:
Electrical energy is measured in Watt hours (Wh)

1 kWh	= 1 kilo Wh	= 1,000 Wh
1 MWh	= 1 Mega Wh	= 1,000,000 Wh
1 GWh	= 1 Giga Wh	= 1,000,000,000 Wh




Sample Item 3: Births in the United States

This item (of medium difficulty) focuses on the following aspects of the numeracy construct:

<i>Content</i>	Data and chance
<i>Process</i>	Interpret, evaluate
<i>Context</i>	Community and society


Respondents are asked to respond by clicking on one or more of the time periods provided in the left pane on the screen.



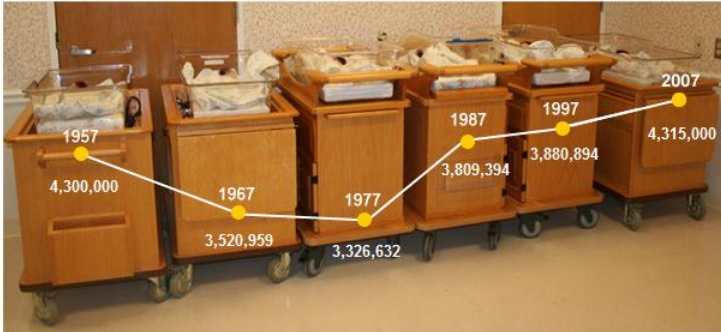
Look at the graph about the number of births. Click to answer the question below.

During which period(s) was there a decline in the number of births? Click all that apply.

- ☐ 1957 - 1967
- ☐ 1967 - 1977
- ☐ 1977 - 1987
- ☐ 1987 - 1997
- ☐ 1997 - 2007



The following graph shows the number of births in the United States from 1957 to 2007. Data are presented every 10 years.



Year	Number of Births
1957	4,300,000
1967	3,520,959
1977	3,326,632
1987	3,809,394
1997	3,880,894
2007	4,315,000

Problem solving in technology-rich environments– sample items

Problem solving in technology-rich environments in the Survey of adult skills (PIAAC) refers to the ability to use technology to solve problems and accomplish complex tasks. It is not a measurement of “computer literacy”, but rather of the cognitive skills required in the information age – an age in which the accessibility of boundless information has made it essential for people to be able to decide what information they need, to evaluate it critically, and to use it to solve problems. In this survey, higher-order skills are identified along with basic proficiency.


Problem Solving in Technology-Rich Environments - Sample Items

An example of a problem solving item is provided below. This item involves a scenario in which the respondent takes the role of a job seeker. Respondents access and evaluate information relating to job search in simulated web environment. This environment includes tools and functionality similar to those found in real-life applications. Users are able to:

- Click on links on both the results page and associated web pages;
- Navigate using the back and forward arrows or the Home icon; and
- Bookmark web pages and view or change those bookmarks.

The screenshot shows a simulated web browser interface. On the left, a light blue sidebar contains the text: "Unit 10 - Part 1", "You are looking for a job and have located these five websites.", "You want to use a site that does not require you to register or pay a fee.", "Bookmark all the sites that meet your requirements.", and "Once you have bookmarked the sites, click Next to go on." The main browser window has a blue header with "Section 1" and a "Web" title bar. The address bar shows "URL: www.websearch.com/jobsearch". The page content includes a "Web Search" section with a magnifying glass icon and a search box containing "Job search". Below this are five job search results, each with a link, a description, and a URL: "Find Your Job - JobSearch.com" (The best job search site on the web. Check with us first! www.jobsearch.com), "Work Links" (We connect you with the best jobs on the web. www.worklinks.com), "Looking for a job?" (Start your job search here. www.careerstarters.com), "Connections.com" (We provide access to the best jobs www.connections.com), and "The best jobs online" (If you are looking for the perfect job, start right here. www.greatjobs.com). The browser interface includes navigation buttons (back, forward, home, search) and a status bar at the bottom.

The first stimulus accessed by respondents is the results page of the search engine application which lists five employment agency websites. To complete the task successfully, respondents have to search through the pages of the listed websites to identify whether registration or the payment of a fee is required in order to gain further information about available jobs. Respondents can click on the links on the search page to be directed to the websites identified, for example, by clicking on the 'Work Links' link, the respondent is directed to the home page of 'Work Links'.

Section 1

Unit 10 - Part 1

You are looking for a job and have located these five websites.


You want to use a site that does not require you to register or pay a fee.

Bookmark all the sites that meet your requirements.


Once you have bookmarked the sites, click Next to go on.

Web

File Edit Bookmark Help




URL:




Work links

Connecting you to the BEST Jobs




Learn More

Thousands of new jobs in the last 7 days
Search job sites, newspapers, associations and company career pages.



Web



In order to discover whether access to the information on available jobs requires registration with the organisation or payment of a fee, the respondent must click the “Learn More” button which opens the following page. The respondent would then return to the search results page to continue evaluating the sites in terms of the specified criteria, using the back arrows without bookmarking the page (correct answer) or having bookmarked the page (incorrect answer).

OECD PIAAC

Unit 10 - Part 1

You are looking for a job and have located these five websites.

You want to use a site that does not require you to register or pay a fee.

Bookmark all the sites that meet your requirements.

Once you have bookmarked the sites, click Next to go on.

Section 1

Web

File Edit Bookmark Help

URL:

Work links

Connecting you to the BEST Jobs

To search for your new job, sign up for Work Links now!

First Name	Last Name
<input type="text"/>	<input type="text"/>
Your Email Address	Re-Enter Email
<input type="text"/>	<input type="text"/>
Create a password	Re-Enter Password
<input type="text"/>	<input type="text"/>

\$15.00 for 1 month or \$33.00 for monthly access plan

Credit Card Type:

Credit Card Number:

Expiration Date: