

## ASER 2023: Assessment tasks

The ASER 2023 'Beyond Basics' assessment tested the functional competencies of youth by assessing them on the following broad domains:

1. Digital tasks like setting an alarm, browsing for information, finding and sharing a YouTube video, using Google Maps
2. Everyday calculations like calculating time, adding weights, measuring length, applying unitary method
3. Basic ASER assessment of reading, arithmetic and English
4. Reading and understanding written instructions (administered only to youth who were able to read at least a Std I level text in the ASER reading test)
5. Financial calculations (administered only to youth who were able to do at least subtraction in the ASER arithmetic test)

Assessment tools were developed in 14 languages across the country.

### 1. Digital tasks

#### Setting an alarm

**8:30 in the morning tomorrow**

Question: Set an alarm for 8:30 in the morning tomorrow.  
Instruction: If the phone has an AM-PM setting, ensure that the youth has selected the correct option before recording the answer.

#### Browsing for information

**First woman President of India**

Question: Search on the phone and tell me the name of the first woman President of India.  
Instruction: It does not matter which search engine the youth uses to find the answer; he/she could use Google, YouTube, or any other method. He/she should be able to point to/tell you the correct answer.

#### Using Google Maps

**Maps**

Question: Open Maps and tell me how much time it would take you to travel from your current location to <district name> bus/taxi stand by bike/two-wheeler?  
Instruction: The youth should be able to do the task on an app (like Google Maps), and not on any search engine (like Google). Even if the youth simply points to the correct answer, it will be considered as correct. Ensure that the youth has chosen the correct option from two-wheeler/four-wheeler on Maps. Do not ask the youth to turn on the location.

#### Finding and sharing a YouTube video


**PMGDISHA Module 1**

Question: Find the "PMGDISHA Module 1" video on YouTube.  
Send/share it with a friend/family member using WhatsApp or Telegram.  
Instruction: The youth should be able to point at the correct video after searching on YouTube.

For each task, the surveyor can read out the question twice and shows the keywords to the youth for the relevant question in the testing tool. The youth's responses are coded as correct or incorrect. If the youth does not respond, or says that he/she does not know the answer, or if the phone stops working in the middle of the task, then that is also coded.

## 2. Everyday calculations

### Calculating time

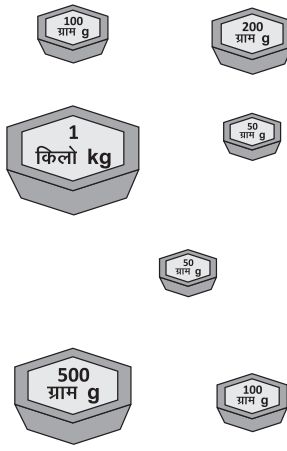


08:30 PM

04:30 AM

If this girl sleeps at this time at night and wakes up at this time in the morning then for how many hours does she sleep?

### Adding weights



100 ग्राम g

200 ग्राम g

1 किलो kg

50 ग्राम g

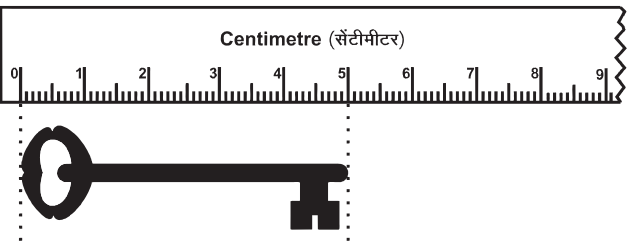
50 ग्राम g

500 ग्राम g

100 ग्राम g

What is the total weight shown in this picture? Add and give the answer in kilogram.

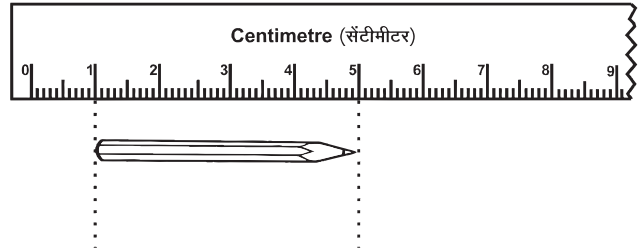
### Measuring length (easy)



Centimetre (सेंटीमीटर)

Using the scale shown, measure the length of the key. Give the answer in centimetre.


### Measuring length (hard)



Centimetre (सेंटीमीटर)

Using the scale shown, measure the length of the pencil. Give the answer in centimetre.

### Applying unitary method



15 Litres

25 Litres

If 3 chlorine tablets are needed to purify 15 litres of water, how many chlorine tablets are needed to purify 25 litres of water?

For each task, the surveyor shows the visual and can read out the question twice. The youth's responses are coded as correct or incorrect. If the youth does not respond or says that he/she does not know the answer, then that is also coded.

### 3. Basic ASER assessment

#### ASER reading tool

Std II level text

अमन के पिताजी दुकान चलाते थे। दिन भर सब ठीक रहता था। रात को चूहे बहुत परेशान करते थे। अमन ने चूहों को भगाने का एक तरीका सोचा। वह एक बड़ी बिल्ली ले आया। बिल्ली के डर से चूहे अब दुकान में नहीं आते हैं। पिताजी अमन से बहुत खुश हुए। वह अब आराम से दुकान चलाते हैं।

Std I level text

राजू के पास एक गाय है। वह हरी घास खाती है। वह बहुत दूध देती है। दूध से दही बनता है।

Letters

म	र	ध
ह	ट	
ड	ब	न
क	ज	

Words

नाक	चूहा
खेत	पीला
मोर	भैया
खुश	रोटी
तोता	गिन

#### ASER arithmetic tool

Subtraction

92	35
- 68	- 17
-----	-----
73	41
- 55	- 24
-----	-----
53	96
- 38	- 77
-----	-----
81	64
- 56	- 35
-----	-----

Division

7	883
4	537
6	778
8	925

Number recognition  
11-99

32	84
65	43
55	18
72	37
29	98

Number recognition  
1-9

3	6
9	2
4	7
8	5

#### ASER English tool

Capital letter

R	F	J
T	B	
M	K	H

Small letter

q	z	o
w	a	
d	s	c

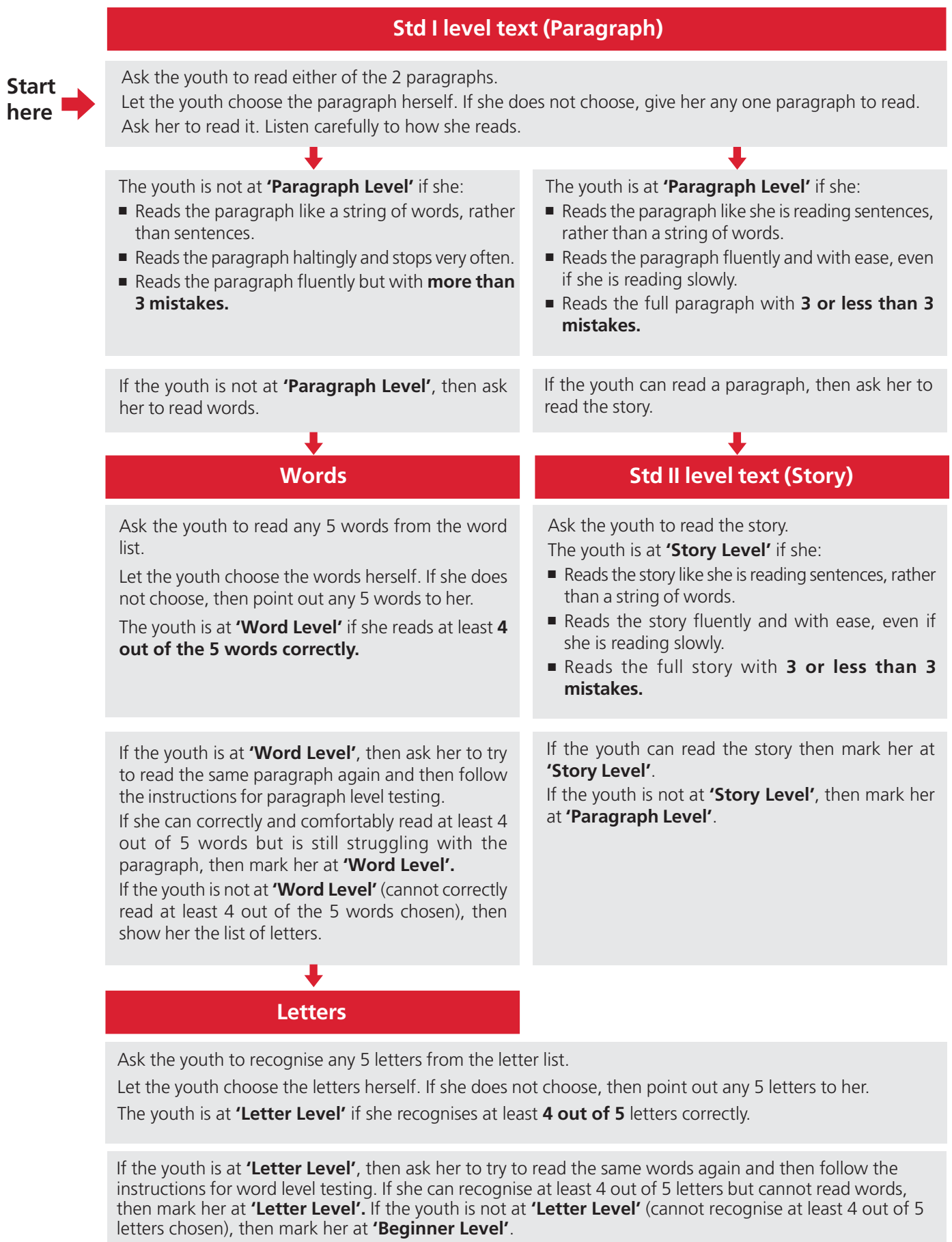
Word

fun	jug
hot	
bat	sun
dog	

Sentence

Where is your cow?  
This is a big shop.  
I like to read.  
She has a red kite.

## How to test reading?



**In the Youth Information Sheet, mark the youth at the highest level she can read.**

### Subtraction (2-digits with borrowing)

Start here →

The youth is required to solve 2 subtraction problems. Show her the subtraction problems. First ask her to choose a problem. If she does not choose, then you pick one problem for her.

**Ask the youth what the numbers are, and then ask her to identify the subtraction sign.**

If the youth is able to identify the numbers and the sign, then ask her to write and solve the problem in the rough booklet. Observe if the answer is correct.

**Even if the first subtraction problem is answered incorrectly, ask the youth to solve the second question following the process explained above. If the second problem is correct, then ask her to try and solve the first problem again.**

If she makes a careless mistake, then give her another chance with the same question.

If the youth **cannot do both** the subtraction problems correctly, then ask her to recognise numbers from 11-99. Even if she solves just one subtraction problem incorrectly, give her the number recognition (11-99) task.

If the youth solves **both** the subtraction problems correctly, then ask her to do a division problem.

### Number Recognition (11-99)

Ask the youth to identify any 5 numbers from the list. Let her choose the numbers herself. If she does not choose, then point out any 5 numbers to her. If she can correctly recognise at least **4 out of 5** numbers, then mark her at '**Number Recognition (11-99) Level**'.

### Division (3-digits by 1-digit)

The youth is required to solve 1 division problem. Show her the division problems. She can choose any one problem. If she does not choose, then you pick one for her.

Ask her to write and solve the problem.

Observe what she does. If she is able to correctly solve the problem, then mark her at '**Division Level**'.

**Note: The quotient and the remainder both have to be correct.**

If she makes a careless mistake, then give her another chance with the same question.

If the youth is not at '**Number Recognition (11-99) Level**' (cannot correctly recognise at least 4 out of 5 numbers chosen), then ask her to recognise numbers from 1-9.

If the youth is unable to solve a division problem correctly, mark her at '**Subtraction Level**'.

### Number Recognition (1-9)

Ask the youth to identify any 5 numbers from the list. Let the youth choose the numbers herself. If the youth does not choose, then point out any 5 numbers to her.

If she can correctly recognise at least **4 out of 5 numbers**, then mark her at '**Number Recognition (1-9) Level**'.

If the youth is not at '**Number Recognition (1-9) Level**' (cannot recognise at least 4 out of 5 numbers chosen), then mark her at 'Beginner Level'.

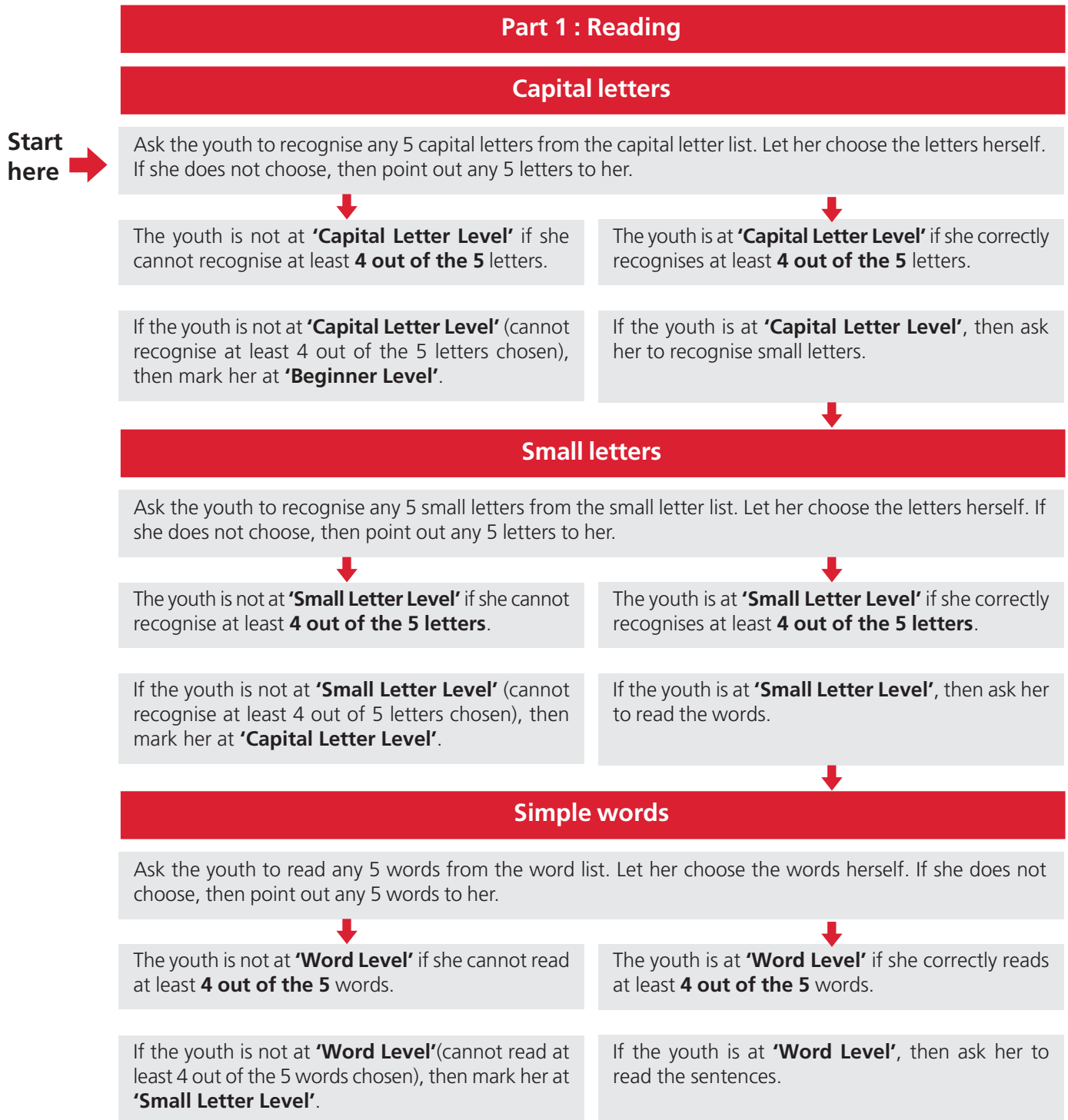
**The youth must solve the numerical arithmetic problems in the rough booklet.**

**In the Youth Information Sheet, mark the youth at the highest level she can reach.**

## How to test English?

There are 2 parts in the English testing: Reading and Meaning.

- First administer the reading section and mark the highest reading level of the youth.
- Then administer the meaning section. This is only for youth who are marked at word or sentence level in the English reading section.



*Continued on the next page...*

## Easy sentences

Ask the youth to read all four of the given sentences.

The youth is not at '**Sentence Level**' if she:

- Cannot read at least **2 out of the 4** sentences fluently.
- Reads the sentences like a string of words, rather than a sentence.
- Reads the sentences haltingly or stops very often.

If the youth is not at '**Sentence Level**', then mark her at '**Word Level**'

AND

Ask her to tell you the meaning of the words she has read correctly.

The youth is at '**Sentence Level**' if she:

- Reads at least **2 out of the 4** sentences fluently.
- Reads the sentence like a sentence and not a string of words.
- Reads the sentence fluently and with ease, even if she is reading slowly.

If the youth is at '**Sentence Level**', then mark her at '**Sentence Level**'

AND

*Ask her to tell you the meaning of the sentences she has read correctly.*

**On the Youth Information Sheet, mark the youth at the highest level she can reach.**

## Part 2: Meaning

### For 'Word Level' youth

#### Word Meanings

Ask the youth to tell the meaning of the words she has read correctly, in her **local language**.

The youth knows the meaning of the words, if she can correctly tell the meaning of at least 4 of the read words. She can tell the meaning of the words by:

- Saying the correct meaning in her local language
- OR
- Pointing to an object, which explains the meaning of the word. For example, pointing to her father while explaining the meaning of 'man'; pointing to something red to explain the meaning of 'red'.

If the youth can correctly tell the meaning of **at least 4** of the words, then mark her as '**Can say**' in the meaning column.

If the youth cannot correctly tell the meaning of **at least 4** of the words, then mark her as '**Cannot say**' in the meaning column.

### For 'Sentence Level' youth

#### Sentence Meanings

Ask the youth to tell you the meaning of the sentences she has read correctly, **in her local language**.

The youth knows the meaning of the sentences, if she can correctly tell the meaning of at least 2 of the read sentences. She can tell the meaning of the sentences by:

- Saying the correct meaning in her local language
- OR
- Explaining the meaning of at least the main underlined words in the sentence. For example, for a sentence like 'What is the time?' the youth should at least be able to say 'kya/kitna' and 'samay/waqt'.

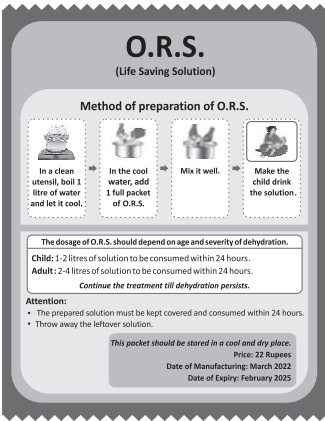
**Note: Do not ask the meaning of the main underlined words by pointing at them one by one.**

If the youth can correctly tell the meaning of **at least 2** of the sentences, then mark her as '**Can say**' under the meaning column.

If the youth cannot tell the meaning of **at least 2** of the sentences, then mark her as '**Cannot say**' under the meaning column.

**Note: If the youth is marked at 'Word Level', then ask only word meaning. If the youth is marked at 'Sentence Level', then ask only sentence meaning.**

#### 4. Reading and understanding written instructions\*

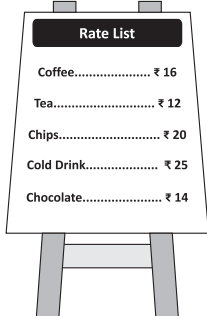


- How many packets of O.R.S. should be added to 4 litres of water?
- Within how many hours should the prepared solution of O.R.S. be consumed?
- How many litres of O.R.S. solution can be given to a 45 year old man within a span of 24 hours?
- Based on the information given, can this packet of O.R.S. be consumed in March 2024?

The surveyor shows the visual and can read out each question twice. The youth's responses are coded as correct or incorrect. If the youth does not respond or says that he/she does not know the answer, then that is also coded.

#### 5. Financial calculations\*\*

**Managing a budget**



You visit a shop where this rate list has been displayed. If you have to spend Rs. 50 completely and buy 3 different things, which 3 things can you buy?

**Applying a discount**



This is the price of this pair of shoes and it is available on a discount of 10 percent. If you buy this pair of shoes, how much money will you spend?

**Calculating repayment**

Rates of Interest offered by Banks	
Name of Bank	Interest Rate on loan
Hamara Bank	14% per year
Paisa Bank	12% per year
Naya Bank	13% per year

**Loan Amount = Rs. 20,000**

Ravi's mother has to buy a cow. For this, she has to take a loan from a bank. The rates of interest offered by 3 different banks have been listed here.

- Which of these banks should Ravi's mother take a loan from?
- Ravi's mother took a loan of Rs. 20,000. After 1 year, what is the total amount, including the interest, that she would have to return to the bank?

For each task, the surveyor shows the visual and can read out the question twice. The youth's responses are coded as correct or incorrect. If the youth does not respond or says that he/she does not know the answer, then that is also coded.

\*This task was administered only to youth who were able to read at least a Std I level text in the ASER reading test.  
 \*\*These tasks were administered only to youth who were able to do at least subtraction in the ASER arithmetic test.



## Alignment with learning outcomes

The National Council of Educational Research and Training's (NCERT) learning outcome indicators for elementary education highlight concepts that students are expected to be familiar with at the end of each grade.<sup>1</sup> The tasks in ASER 2023 'Beyond Basics' assess some of these concepts in the context of everyday usage. The application-based tasks of the ASER 2023 tool are mapped to corresponding learning outcomes below:

Sub-domain	Task	Corresponding grade of learning outcomes
Everyday calculations	Calculating time	Std IV
	Adding weights	Std IV
	Measuring length (easy/hard)	Std III
	Applying unitary method	Std VI
Reading comprehension	Reading and understanding written instructions on an ORS packet	Std V
Financial calculations	Managing a budget	Std III
	Applying a discount	Std VII
	Calculating repayment	Std VII

These application-based tasks were originally developed for the ASER 2017 'Beyond Basics' survey which was also focused on the 14-18 age group. A detailed note on the development of the tool can be found on page 37-38 of the ASER 2017 report.<sup>2</sup>



<sup>1</sup>See Learning Outcomes at the Elementary Stage on <https://nchttps://ncert.nic.in/pdf/publication/otherpublications/tilops101.pdf>

<sup>2</sup>See ASER 2017 report on <https://img.asercentre.org/docs/Publications/ASER%20Reports/ASER%202017/aser2017fullreportfinal.pdf>