

Ei ASSET

Scholastic Skills Assessment 2022



ABCD

DIAGNOSTIC
REPORT
STUDENT



Enhancing Learning Outcomes

We achieve this by building products and learning solutions that focus on diagnostic assessment and personalised learning. Our learning platforms cull relevant and customised intelligence from over five billion data points to deliver content in the form of questions, activities, games and videos to assess students' learning levels and provide explanations, feedback and learning inputs for all stakeholders. This data treasure has been built over two decades and is one-of-its-kind in the education industry.

We believe in a scientific approach to conceptualising, designing and building our products. This stems from a dream to discover SCIENCE OF LEARNING that can systematically be made available to teachers. Ei's mission is to build this 'Science of Learning' which provides a repository of data and techniques that can be used by teachers to help children learn better - a big improvement over today's situation where teachers struggle alone to help students learn. Ei's work on assessment and learning has already helped create banks of misconceptions, common student errors and the like and these are being shared as usable insights.



Ei ASSET

Know where your school stands

Ei ASSET is a skill-based test that measures students' conceptual understanding and benchmarks the school's performance at international, national & regional levels with actionable insights through easy-to-understand reports.



A test for every school, every class, every year

Grades and Subjects

3 to 10 – English, Math & Science
5 to 10 – Social Studies
4 to 8 – Hindi

Regions and Curriculum

The Ei ASSET exams cover all the major curricula being taught in India, UAE, Singapore, Gulf, & Africa.

Ei ASSET helps you gain these essential insights



Benchmark Performance

How does your school's students perform compared to other schools and what areas need improvement?



Diagnose Misconceptions

Do students understand concepts deeply and are there any critical learning gaps?



Assess Teacher Effectiveness

What should your teachers do to improve classroom instruction?



Get a complete picture of your school's performance



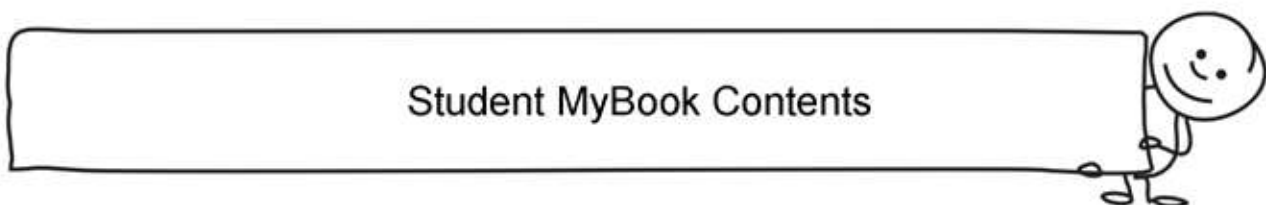
Know how well your students can think and apply concepts



Focu your teaching time on the most critical learning gaps

Sample Student Report Class (6)
Sample School
PAN No. 413424191
Winter 2017

205449 / 0096 / A91



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PERSONALISED STUDENT FEEDBACK

Sample Student Report ,

Congratulations on taking the ASSET test!

ASSET is a diagnostic test that tells you which skills you are strong at and which skills you should work on to develop further. The analysis given here is for all the subjects for which you have taken the ASSET test.

Subject	Highest-performing Skills	Lowest-performing Skills
English	Understands the usage of grammar concepts	Interprets the lines of a poem
	Knows correct spellings and phonics in words	Identifies synonyms, antonyms and other words
Maths	Measurement and data interpretation	Arithmetic operations: four basic operations, properties
	Applications in daily life: word/visual problems	Area and perimeter: concepts and computations
Science	Integrating different concepts or information for decision making	Hypothesis formulation; design of apparatus or experiment
	Extraction, translation and application of knowledge or information	Classification/comparison of organisms/processes; giving examples
हिन्दी	कथानक के मूल तथ्यों को समझना	रूढिगत शब्दों और मुहावरों का अर्थ और प्रयोग
		व्याकरण के तत्त्वों की व्यावहारिक जानकारी

Practice questions compiled especially for you!

This MyBook will guide you to improve those areas where your performance was low! In each subject, we have chosen two skills which includes at least one skill in which you have not performed well, and provided practice questions for the same. Answers to all these questions with explanations are provided at the end of this booklet.

Remember, this is YOUR practice book - no other student taking ASSET would get exactly the same set of questions! So do them carefully. Also write to us and tell us if you found the questions helpful. Email us at feedback@ei-india.com to share your comments and suggestions.

As you know, ASSET is offered in English, Maths and Science in classes 3-10, and in Hindi in classes 4-8, and Social Studies in classes 5-10. Practice questions are provided in all the subjects in which you took ASSET.

Read through your analysis carefully to know how you did on each skill and question. By working on areas that need attention, you can easily improve and do better!

Best of luck!

Regards,

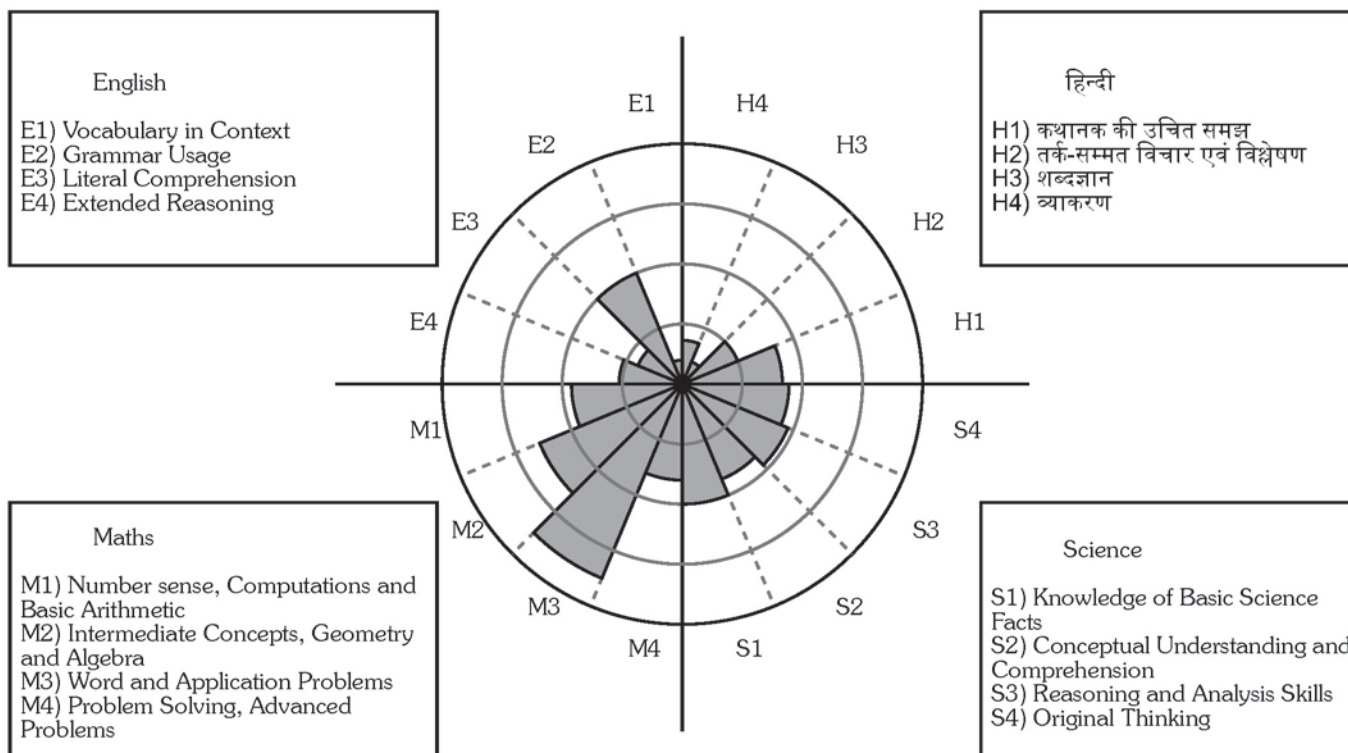


Pranav Kothari

CEO - Educational Initiatives

CIRCULAR SKILL PROFILE

Sample Student Report (6)



The Circular Skill Profile represents your performance on each core skill in each subject test of ASSET you have taken. The outer circle represents 100%. The section between two axes represents a core skill in a subject, and the shaded region plots your performance on the skill. The greater the height of the shaded section, the better the performance.

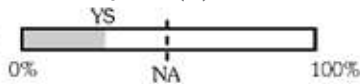
Understanding Skills

The main difference between the ASSET (Assessment of Scholastic Skills through Educational Testing) tests and the regular school tests lies in the fact that ASSET tests are SKILL-BASED. Skills or competencies refer to specific abilities that a student develops. A skill-based test can be contrasted with a fact- or memory-based test. In the latter type of tests, the student is asked to recall or reproduce facts more often than to apply the concepts taught to them. However, most competitive exams, entrance tests as well as international admission tests (like the GRE) tend to be skill-based. This is because it is being widely appreciated that a student's understanding can be tested better with a skill-based test rather than a fact-based one. Facts and their recall are important; however, they should not be overemphasized and ASSET believes in this.

ENGLISH PERFORMANCE

Sample Student Report (6)

Your Score: 17/60



YS - Your Score (%)
NA - National Average (%)

Percentile*: <50

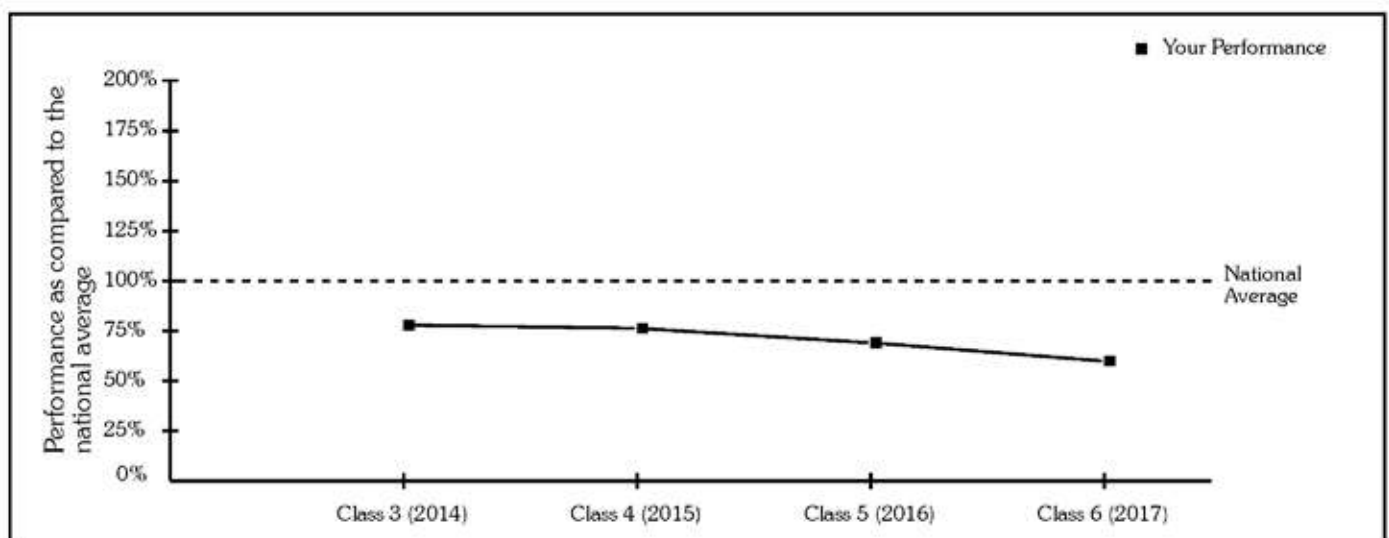
SKILL-BASED SUMMARY AND STRENGTH / WEAKNESS ANALYSIS

No.	Core Skill	Sub Skill	Answered Right	Answered Wrong	Graph	S/W
1	Vocabulary in Context	Deduces word meanings from contextual clues	54	1,19,35,53		W
2		Identifies synonyms, antonyms and other words		14,18,20,36,43		W
3	Grammar Usage	Knows correct spellings and phonics in words	15,17	24,58		
4		Knows punctuation and sentence formation	55,60	26,52,56,59		
5		Understands the usage of grammar concepts	46,47,49,50	16,48		
6	Literal Comprehension	Identifies and recalls direct facts in the passage	40	3,21,28,31,33		W
7		Understands idioms, proverbs and figures of speech	8	25,51,57		
8		Understands organisation and context of the passage	23	10,37,39,44		W
9	Extended Reasoning	Analyses characters and situations	6	4,5,7,22,42		W
10		Identifies the main idea and purpose of the passage	13	29,32,45		
11		Infers using contextual clues and prior knowledge	2,27,30	34,38,41		
12		Interprets the lines of a poem		9,11,12		

The graphs represent the percentage of questions answered correctly. Skills where the performance is <25% are marked as W and >75% are marked as S. Only skills having at least 5 questions are considered.

*Percentile refers to the percentage of students that scored lower than you in the test. E.g. If your percentile score is 72, this means that 72% of all other participating students have scored less than you have. Alternately, this means that you are in the top 28% of all participating students for this subject.

Performance History:



ENGLISH SCORE CARD

Sample Student Report (6)

1-Your Answer 2-Correct Answer 3-Result 4-National Performance

Q	Skill Tested	1	2	3	4	Error Indicated
1	Deduces word meanings from contextual clues	D	B	X	44%	unable to deduce meaning of words in context
2	Infers using contextual clues and prior knowledge	A	A	✓	64%	-
3	Identifies and recalls direct facts in the passage	D	C	X	82%	unable to recall ideas from a passage
4	Analyses characters and situations	D	C	X	68%	unable to analyse and infer situations
5	Analyses characters and situations	A	D	X	31%	unable to analyse and infer characters
6	Analyses characters and situations	D	D	✓	44%	-
7	Analyses characters and situations	A	B	X	51%	unable to analyse situations in a passage
8	Understands idioms, proverbs and figures of speech	B	B	✓	25%	-
9	Interprets the lines of a poem	D	A	X	63%	unable to interpret the lines of a poem
10	Understands organisation and context of the passage	B	D	X	56%	unable to understand context of the passage
11	Interprets the lines of a poem	C	A	X	45%	unable to interpret the lines of a poem
12	Interprets the lines of a poem	A	D	X	54%	unable to interpret the lines of a poem
13	Identifies the main idea and purpose of the passage	C	C	✓	64%	-
14	Identifies synonyms, antonyms and other words	A	D	X	55%	unable to identify antonyms of a word
15	Knows correct spellings and phonics in words	C	C	✓	63%	-
16	Understands the usage of grammar concepts	B	C	X	75%	unable to identify adverbs
17	Knows correct spellings and phonics in words	D	D	✓	48%	-
18	Identifies synonyms, antonyms and other words	D	A	X	43%	unable to identify antonym of a word
19	Deduces word meanings from contextual clues	C	B	X	55%	unable to deduce meaning of words in context
20	Identifies synonyms, antonyms and other words	B	C	X	44%	unable to identify synonym of a word
21	Identifies and recalls direct facts in the passage	A	B	X	51%	unable to recall ideas from a passage
22	Analyses characters and situations	C	A	X	58%	unable to analyse characters in a passage
23	Understands organisation and context of the passage	A	A	✓	26%	-
24	Knows correct spellings and phonics in words	C	B	X	33%	unable to identify correct spellings of words
25	Understands idioms, proverbs and figures of speech	C	B	X	52%	unable to understand idiomatic phrases
26	Knows punctuation and sentence formation	A	C	X	56%	unable to form a grammatically correct sentence
27	Infers using contextual clues and prior knowledge	B	B	✓	79%	-
28	Identifies and recalls direct facts in the passage	B	C	X	52%	unable to recall ideas from a passage
29	Identifies the main idea and purpose of the passage	A	C	X	38%	unable to identify the main idea of the passage
30	Infers using contextual clues and prior knowledge	D	D	✓	61%	-
31	Identifies and recalls direct facts in the passage	B	A	X	70%	unable to recall ideas from a passage
32	Identifies the main idea and purpose of the passage	D	C	X	38%	unable to identify the purpose of the passage
33	Identifies and recalls direct facts in the passage	B	C	X	54%	unable to recall ideas from a passage
34	Infers using contextual clues and prior knowledge	D	B	X	50%	unable to infer using contextual clues
35	Deduces word meanings from contextual clues	A	C	X	59%	unable to deduce meaning of words in context
36	Identifies synonyms, antonyms and other words	C	A	X	37%	unable to identify antonym of a word
37	Understands organisation and context of the passage	C	B	X	41%	unable to understand context of the passage
38	Infers using contextual clues and prior knowledge	A	D	X	40%	unable to infer using contextual clues
39	Understands organisation and context of the passage	C	B	X	32%	unable to understand context of the passage
40	Identifies and recalls direct facts in the passage	A	A	✓	42%	-

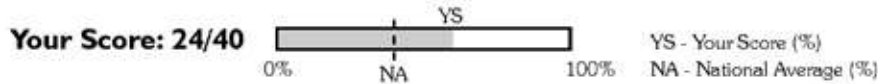
ENGLISH SCORE CARD

Sample Student Report (6)

Q	Skill Tested	1	2	3	4	Error Indicated
41	Infers using contextual clues and prior knowledge	B	C	X	27%	unable to infer using contextual clues
42	Analyses characters and situations	A	C	X	33%	unable to analyse situations in a passage
43	Identifies synonyms, antonyms and other words	C	B	X	54%	unable to identify synonym of a word
44	Understands organisation and context of the passage	A	C	X	33%	unable to understand context of the passage
45	Identifies the main idea and purpose of the passage	D	C	X	18%	unable to identify the purpose of the passage
46	Understands the usage of grammar concepts	D	D	✓	58%	-
47	Understands the usage of grammar concepts	B	B	✓	54%	-
48	Understands the usage of grammar concepts	A	D	X	38%	unable to apply grammar concepts
49	Understands the usage of grammar concepts	D	D	✓	58%	-
50	Understands the usage of grammar concepts	A	A	✓	73%	-
51	Understands idioms, proverbs and figures of speech	C	B	X	25%	unable to understand figure of speech
52	Knows punctuation and sentence formation	A	C	X	55%	unable to form a grammatically correct sentence
53	Deduces word meanings from contextual clues	B	A	X	28%	unable to deduce meaning of words in context
54	Deduces word meanings from contextual clues	C	C	✓	46%	-
55	Knows punctuation and sentence formation	D	D	✓	61%	-
56	Knows punctuation and sentence formation	A	D	X	47%	unable to form a grammatically correct sentence
57	Understands idioms, proverbs and figures of speech	B	A	X	39%	unable to understand the meaning of idioms
58	Knows correct spellings and phonics in words	B	D	X	32%	unable to identify phonetic sounds in words
59	Knows punctuation and sentence formation	B	A	X	38%	unable to form a grammatically correct sentence
60	Knows punctuation and sentence formation	A	*	✓	100%	(Question dropped - all given credit)

MATHEMATICS PERFORMANCE

Sample Student Report (6)



Percentile*: 82

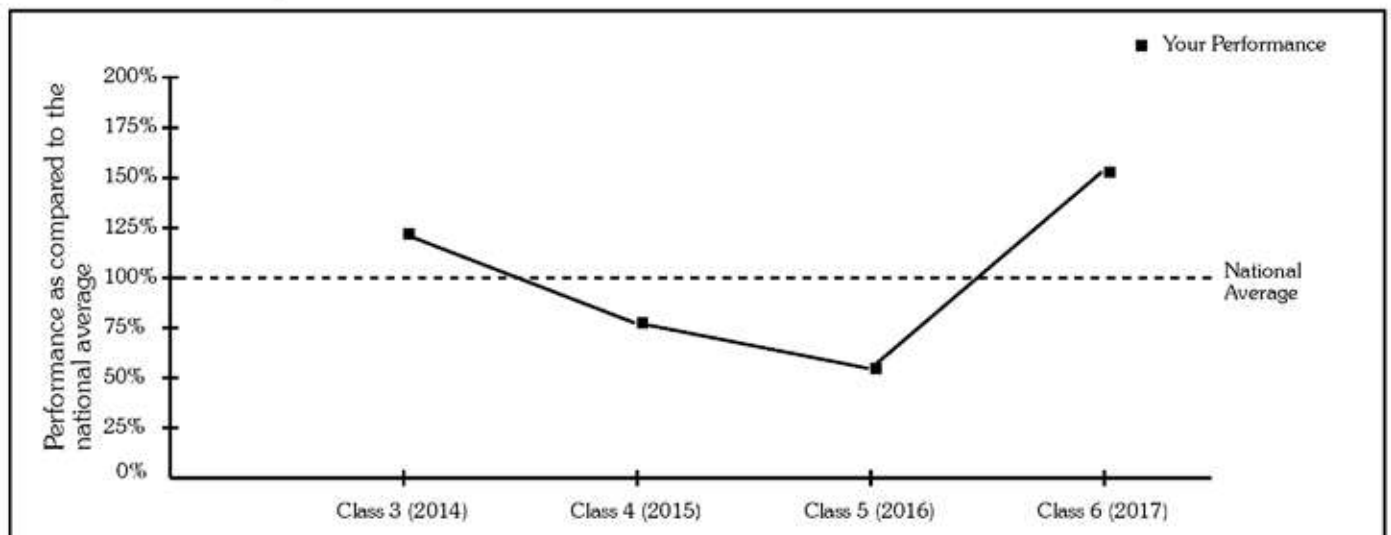
SKILL-BASED SUMMARY AND STRENGTH / WEAKNESS ANALYSIS

No.	Core Skill	Sub Skill	Answered Right	Answered Wrong	Graph	S/W
1	Number sense, Computations and Basic Arithmetic	Arithmetic operations: four basic operations, properties	27	2,19,26,34		W
2		Factors and multiples	22,39	10		
3		Number sense, related concepts and basic number competency	20,29,32	1,25		
4	Intermediate Concepts, Geometry and Algebra	Area and perimeter: concepts and computations	21	4,16		
5		Fractions and decimals: concepts, use and conversions	15,33,35,37	13		S
6		Geometry: concepts and applications	6,24	12		
7		Pre-algebra and algebra skills	11,14	23		
8	Word and Application Problems	Applications in daily life: word/visual problems	9,17,28,36	7		S
9		Measurement and data interpretation	3,5,31			
10	Problem Solving, Advanced Problems	Problem solving: advanced or challenging problems	8,18	30,38,40		

The graphs represent the percentage of questions answered correctly. Skills where the performance is <25% are marked as W and >75% are marked as S. Only skills having at least 5 questions are considered.

*Percentile refers to the percentage of students that scored lower than you in the test. E.g. If your percentile score is 72, this means that 72% of all other participating students have scored less than you have. Alternately, this means that you are in the top 28% of all participating students for this subject.

Performance History:



MATHS SCORE CARD

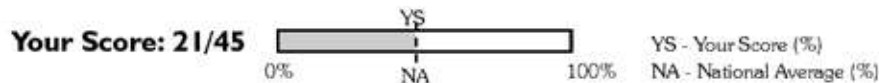
Sample Student Report (6)

1-Your Answer 2-Correct Answer 3-Result 4-National Performance

Q	Skill Tested	1	2	3	4	Error Indicated
1	Number sense, related concepts and basic number competency	C	A	X	64%	Weak number sense
2	Arithmetic operations: four basic operations, properties	A	D	X	22%	Division & Multiplication concepts are not clear
3	Measurement and data interpretation	B	B	✓	55%	-
4	Area and perimeter: concepts and computations	B	C	X	24%	Weaker understanding of area concepts
5	Measurement and data interpretation	A	A	✓	51%	-
6	Geometry: concepts and applications	A	A	✓	39%	-
7	Applications in daily life: word/visual problems	A	C	X	16%	Volume problem not analysed correctly
8	Problem solving: advanced or challenging problems	D	D	✓	31%	-
9	Applications in daily life: word/visual problems	B	B	✓	44%	-
10	Factors and multiples	B	C	X	31%	Concepts of common multiples is not clear
11	Pre-algebra and algebra skills	B	B	✓	65%	-
12	Geometry: concepts and applications	D	C	X	24%	Weaker understanding of views of solids
13	Fractions and decimals: concepts, use and conversions	D	A	X	64%	Basics of decimal fractions is not clear
14	Pre-algebra and algebra skills	A	A	✓	49%	-
15	Fractions and decimals: concepts, use and conversions	D	D	✓	45%	-
16	Area and perimeter: concepts and computations	C	D	X	19%	Weaker understanding of area concepts
17	Applications in daily life: word/visual problems	C	C	✓	47%	-
18	Problem solving: advanced or challenging problems	D	D	✓	31%	-
19	Arithmetic operations: four basic operations, properties	C	B	X	36%	Addition & Subtraction concepts are not clear
20	Number sense, related concepts and basic number competency	C	C	✓	52%	-
21	Area and perimeter: concepts and computations	B	B	✓	44%	-
22	Factors and multiples	B	B	✓	54%	-
23	Pre-algebra and algebra skills	C	D	X	50%	Weak reasoning with variable
24	Geometry: concepts and applications	B	B	✓	58%	-
25	Number sense, related concepts and basic number competency	C	D	X	31%	Weak number sense
26	Arithmetic operations: four basic operations, properties	D	A	X	31%	Division concepts not clear
27	Arithmetic operations: four basic operations, properties	C	C	✓	58%	-
28	Applications in daily life: word/visual problems	B	B	✓	27%	-
29	Number sense, related concepts and basic number competency	B	B	✓	45%	-
30	Problem solving: advanced or challenging problems	D	C	X	38%	Data analysed incorrectly
31	Measurement and data interpretation	C	C	✓	31%	-
32	Number sense, related concepts and basic number competency	B	B	✓	25%	-
33	Fractions and decimals: concepts, use and conversions	B	B	✓	42%	-
34	Arithmetic operations: four basic operations, properties	A	C	X	41%	Multiplication concepts are not clear
35	Fractions and decimals: concepts, use and conversions	C	C	✓	42%	-
36	Applications in daily life: word/visual problems	A	A	✓	24%	-
37	Fractions and decimals: concepts, use and conversions	B	B	✓	54%	-
38	Problem solving: advanced or challenging problems	A	C	X	29%	Problem analysed incorrectly; Weak number sense
39	Factors and multiples	D	D	✓	40%	-
40	Problem solving: advanced or challenging problems	C	B	X	28%	Data interpreted incorrectly

SCIENCE PERFORMANCE

Sample Student Report (6)



Percentile*: <50

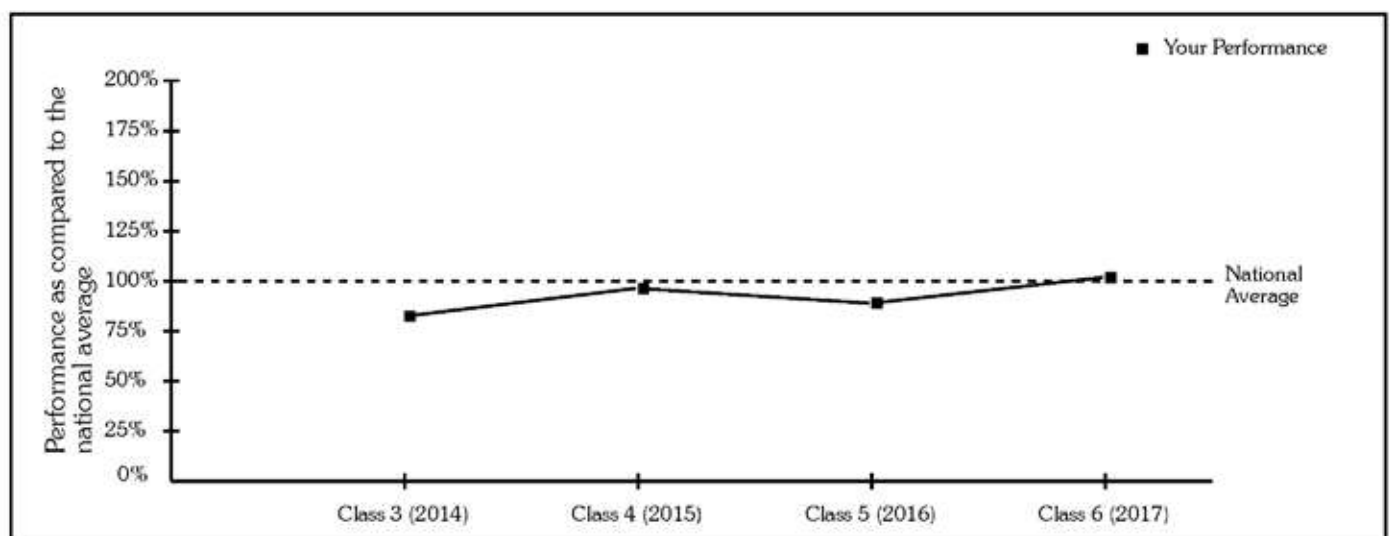
SKILL-BASED SUMMARY AND STRENGTH / WEAKNESS ANALYSIS

No.	Core Skill	Sub Skill	Answered Right	Answered Wrong	Graph	S/W
1	Knowledge of Basic Science Facts	Definition or description of scientific terms, organisms or materials	11,20,43	31,41		
2		Recollection or recognition of science facts and concepts	4	17,45		
3	Conceptual Understanding and Comprehension	Classification/comparison of organisms/processes; giving examples	24	25,32		
4		Knowledge of use of scientific instruments, tools and procedures	12,40	10,30		
5	Reasoning and Analysis Skills	Advanced or complex data representation or interpretation	6,34	21,29,37		
6		Analysis of information to identify trends or properties	13,28	15,23,27		
7		Extraction, translation and application of knowledge or information	3,16,18,26	2,35		
8		Representing, relating or explaining scientific processes or observed phenomena	7,39	1,5,36		
9	Original Thinking	Hypothesis formulation; design of apparatus or experiment	44	9,14,22,33,42		W
10		Integrating different concepts or information for decision making	8,19,38			

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Performance History:



SCIENCE SCORE CARD

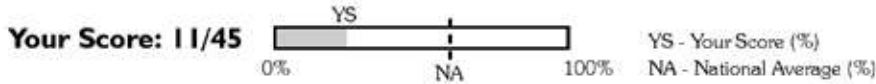
Sample Student Report (6)

1-Your Answer 2-Correct Answer 3-Result 4-National Performance

Q	Skill Tested	1	2	3	4	Error Indicated
1	Representing, relating or explaining scientific processes or observed phenomena	D	B	X	51%	Inadequate knowledge of scientific terms
2	Extraction, translation and application of knowledge or information	B	C	X	56%	Error in interpreting tabular information
3	Extraction, translation and application of knowledge or information	A	A	✓	29%	-
4	Recollection or recognition of science facts and concepts	C	C	✓	49%	-
5	Representing, relating or explaining scientific processes or observed phenomena	D	B	X	57%	Error in understanding the map
6	Advanced or complex data representation or interpretation	C	C	✓	60%	-
7	Representing, relating or explaining scientific processes or observed phenomena	C	C	✓	68%	-
8	Integrating different concepts or information for decision making	B	B	✓	64%	-
9	Hypothesis formulation; design of apparatus or experiment	C	D	X	23%	Error in interpreting pictorial information
10	Knowledge of use of scientific instruments, tools and procedures	D	A	X	48%	Inadequate knowledge of scientific processes
11	Definition or description of scientific terms, organisms or materials	A	A	✓	57%	-
12	Knowledge of use of scientific instruments, tools and procedures	C	C	✓	43%	-
13	Analysis of information to identify trends or properties	D	D	✓	26%	-
14	Hypothesis formulation; design of apparatus or experiment	D	C	X	28%	Inadequate knowledge of scientific processes
15	Analysis of information to identify trends or properties	D	A	X	65%	Error in prediction
16	Extraction, translation and application of knowledge or information	C	C	✓	77%	-
17	Recollection or recognition of science facts and concepts	A	C	X	43%	Relevant knowledge not recalled
18	Extraction, translation and application of knowledge or information	D	D	✓	64%	-
19	Integrating different concepts or information for decision making	D	D	✓	35%	-
20	Definition or description of scientific terms, organisms or materials	A	A	✓	68%	-
21	Advanced or complex data representation or interpretation	A	B	X	33%	Error in interpreting graphs
22	Hypothesis formulation; design of apparatus or experiment	B	A	X	58%	Error in prediction
23	Analysis of information to identify trends or properties	B	D	X	41%	Error in predicting correct cause
24	Classification/comparison of organisms/processes; giving examples	B	B	✓	62%	-
25	Classification/comparison of organisms/processes; giving examples	C	A	X	66%	Error in matching definitions with examples
26	Extraction, translation and application of knowledge or information	C	C	✓	59%	-
27	Analysis of information to identify trends or properties	A	D	X	25%	Error in prediction
28	Analysis of information to identify trends or properties	B	B	✓	54%	-
29	Advanced or complex data representation or interpretation	A	D	X	59%	Error in interpreting graphs
30	Knowledge of use of scientific instruments, tools and procedures	B	C	X	21%	Inadequate knowledge of scientific procedures
31	Definition or description of scientific terms, organisms or materials	D	C	X	21%	Reasons behind observations not understood
32	Classification/comparison of organisms/processes; giving examples	D	B	X	65%	Inadequate knowledge of defining properties
33	Hypothesis formulation; design of apparatus or experiment	D	C	X	42%	Inadequate knowledge of scientific processes
34	Advanced or complex data representation or interpretation	B	B	✓	45%	-
35	Extraction, translation and application of knowledge or information	A	C	X	36%	Error in reading the map
36	Representing, relating or explaining scientific processes or observed phenomena	A	D	X	24%	Error in drawing inference
37	Advanced or complex data representation or interpretation	A	C	X	48%	Error in interpreting pictorial information
38	Integrating different concepts or information for decision making	D	D	✓	45%	-
39	Representing, relating or explaining scientific processes or observed phenomena	A	A	✓	55%	-
40	Knowledge of use of scientific instruments, tools and procedures	C	C	✓	43%	-
41	Definition or description of scientific terms, organisms or materials	B	A	X	43%	Inadequate knowledge of classifying features
42	Hypothesis formulation; design of apparatus or experiment	A	B	X	46%	Error in prediction
43	Definition or description of scientific terms, organisms or materials	A	A	✓	61%	-
44	Hypothesis formulation; design of apparatus or experiment	D	D	✓	29%	-
45	Recollection or recognition of science facts and concepts	C	B	X	28%	Relevant knowledge not recalled

HINDI PERFORMANCE

Sample Student Report (6)



Percentile*: <50

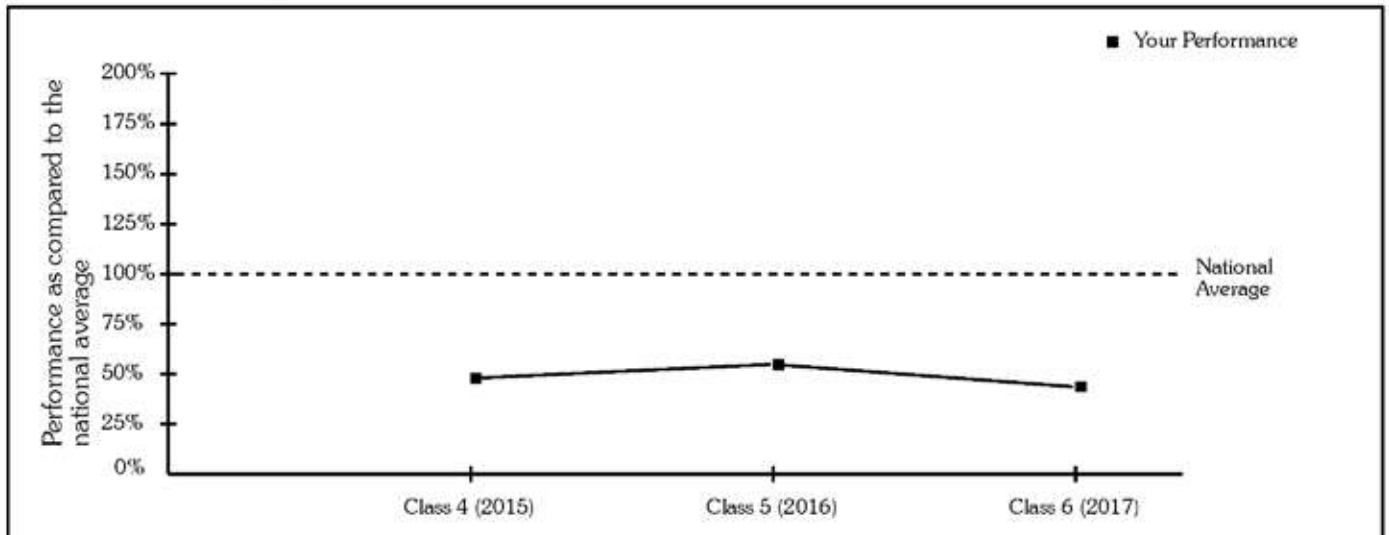
SKILL-BASED SUMMARY AND STRENGTH / WEAKNESS ANALYSIS

No.	Core Skill	Sub Skill	Answered Right	Answered Wrong	Graph	S/W
1	कथानक की उचित समझ	कथानक के मूल तथ्यों को समझना	5,9,21,23,31	3,11,12,17,20,22,29		
2	तर्क-सम्मत विचार एवं विश्लेषण	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	10,18,30	1,7,13,19,24,25,-32,33,34		
3	शब्दज्ञान	रूढ़िगत शब्दों और मुहावरों का अर्थ और प्रयोग		4,15,27,28,43		W
4		विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग	40	2,6,16,41		W
5	व्याकरण	वर्णमाला-क्रम एवं शब्दों की शुद्ध वर्तनी	45	14,26,42,44		W
6		व्याकरण के तत्त्वों की व्यावहारिक जानकारी	35	8,36,37,38,39		W

The graphs represent the percentage of questions answered correctly. Skills where the performance is <25% are marked as W and >75% are marked as S. Only skills having at least 5 questions are considered.

*Percentile refers to the percentage of students that scored lower than you in the test. E.g. If your percentile score is 72, this means that 72% of all other participating students have scored less than you have. Alternately, this means that you are in the top 28% of all participating students for this subject.

Performance History:



HINDI SCORE CARD

Sample Student Report (6)

1-Your Answer 2-Correct Answer 3-Result 4-National Performance

Q	Skill Tested	1	2	3	4	Q	Skill Tested	1	2	3	4
1	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	B	D	X	57%	26	वर्णमाला-क्रम एवं शब्दों की शुद्ध वर्तनी	C	B	X	38%
2	विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग	D	B	X	81%	27	रूढ़िगत शब्दों और मुहावरों का अर्थ और प्रयोग	B	C	X	68%
3	कथानक के मूल तथ्यों को समझना	C	B	X	75%	28	रूढ़िगत शब्दों और मुहावरों का अर्थ और प्रयोग	B	C	X	61%
4	रूढ़िगत शब्दों और मुहावरों का अर्थ और प्रयोग	B	D	X	70%	29	कथानक के मूल तथ्यों को समझना	A	D	X	53%
5	कथानक के मूल तथ्यों को समझना	C	C	✓	70%	30	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	D	D	✓	57%
6	विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग	C	B	X	65%	31	कथानक के मूल तथ्यों को समझना	A	A	✓	61%
7	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	B	C	X	58%	32	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	C	A	X	54%
8	व्याकरण के तत्त्वों की व्यावहारिक जानकारी	C	B	X	85%	33	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	A	B	X	38%
9	कथानक के मूल तथ्यों को समझना	A	A	✓	75%	34	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	A	C	X	49%
10	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	C	C	✓	74%	35	व्याकरण के तत्त्वों की व्यावहारिक जानकारी	B	B	✓	77%
11	कथानक के मूल तथ्यों को समझना	A	C	X	77%	36	व्याकरण के तत्त्वों की व्यावहारिक जानकारी	D	A	X	46%
12	कथानक के मूल तथ्यों को समझना	D	C	X	81%	37	व्याकरण के तत्त्वों की व्यावहारिक जानकारी	A	D	X	27%
13	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	B	D	X	66%	38	व्याकरण के तत्त्वों की व्यावहारिक जानकारी	C	A	X	51%
14	वर्णमाला-क्रम एवं शब्दों की शुद्ध वर्तनी	C	B	X	39%	39	व्याकरण के तत्त्वों की व्यावहारिक जानकारी	B	A	X	74%
15	रूढ़िगत शब्दों और मुहावरों का अर्थ और प्रयोग	A	B	X	58%	40	विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग	D	D	✓	61%
16	विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग	C	D	X	61%	41	विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग	B	A	X	42%
17	कथानक के मूल तथ्यों को समझना	C	D	X	53%	42	वर्णमाला-क्रम एवं शब्दों की शुद्ध वर्तनी	D	C	X	68%
18	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	A	A	✓	65%	43	रूढ़िगत शब्दों और मुहावरों का अर्थ और प्रयोग	C	D	X	71%
19	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	B	C	X	59%	44	वर्णमाला-क्रम एवं शब्दों की शुद्ध वर्तनी	B	C	X	43%
20	कथानक के मूल तथ्यों को समझना	B	D	X	37%	45	वर्णमाला-क्रम एवं शब्दों की शुद्ध वर्तनी	A	A	✓	45%
21	कथानक के मूल तथ्यों को समझना	A	A	✓	72%						
22	कथानक के मूल तथ्यों को समझना	C	B	X	74%						
23	कथानक के मूल तथ्यों को समझना	A	A	✓	73%						
24	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	D	B	X	33%						
25	तर्क-सम्मत निष्कर्ष निकालना / विश्लेषण करना	B	D	X	44%						

*Percentile refers to the percentage of students that scored lower than you in the test. E.g. If your percentile score is 72, this means that 72% of all other participating students have scored less than you have. Alternately, this means that you are in the top 28% of all participating students for this subject.

PRACTICE QUESTIONS

This section has been specially designed for you to practise your low-performing skills.

So, you have received your ASSET results. You have seen the scores, gone through the analysis, checked your answers with the given correct answers and understood your strengths and weaknesses.

Now, your question could be: How can I improve on the skills where I have performed low?

These practice questions have been designed to help you do exactly that. For every subject, we have picked your low-performing skills and provided practice questions with answers and explanations to help you do better next time.*

Try these out - discuss with your parents, teachers or friends if you need to. Answers and explanations are given at the end, but check them only after you have tried your best to answer on your own!

You can also write to us at info@ei-india.com and we'll help you out.

Good luck!

Regards,

The ASSET Team

*In English, if any reading comprehension skill is weak, an entire passage is provided for practice. In Hindi, only non-reading comprehension skills have been provided for practice.

Note: Due to technical limitations, image quality may not be uniform and some images may appear slightly unclear. This is not an error.

Skill: Identifies facts and makes important connections in comprehending a passage.

By reading a passage carefully, we will be able to identify facts that are clearly stated, sequence them correctly and deeply understand different events, characters and their feelings. We will also be able to use clues in the form of knowledge, words and expressions that we already know to connect important ideas and arrive at the correct answers.

My class has got a know-it-all--
the kind who likes to tell
the proper way to sit, and walk,
and count, and speak, and spell.

My class has got a know-it-all--
the kind who always knows
the stuff that happened yesterdays,
or even long-agos.

She's constantly correcting me
if I'm a little wrong.
Like when I shared my bug report,
or when I sing a song.

You wonder why a rooster crows?
Exactly how a flower grows?
Who invented radios?
Or even if a glowworm glows?
She knows.

You ask her why the sky is blue?
How my paper airplane flew?
If a fact is false or true?
Or when our book report is due?
She knows that too.

You might think I'd be angry with
this great-smart creature.
But someday I will be like her...
I'm going to be a teacher.

1. Which of these words from the poem is used as a noun?
 - A. kind (stanza 1)
 - B. bug (stanza 3)
 - C. glows (stanza 4)
 - D. paper (stanza 5)

2. What does 'stuff' in the poem refer to?
 - A. places
 - B. occurrences
 - C. people
 - D. weather

3. In which two stanzas, do all the lines end in a rhyme?
 - A. Stanza 1 and 2
 - B. Stanza 3 and 4
 - C. Stanza 4 and 5
 - D. Stanza 5 and 6

4. Who is the 'know-it-all' in the poet's class?
- A. a classmate
 - B. an older student
 - C. a teacher
 - D. a computer
-
5. Which of these lines shows a sign of inspiration and determination?
- A. My class has got a know-it-all-
 - B. She knows that too.
 - C. But someday I will be like her...
 - D. If a fact is false or true?
-
6. The poet's feeling for the know-it-all can best be described as one of
- A. fear
 - B. admiration
 - C. disgust
 - D. encouragement
-

Maths

Skill: Arithmetic operations: four basic operations, properties

This skill involves the understanding of the four basic operations, the short cuts that can be used to perform these, the properties of these operations like commutativity, associativity, distributive law etc. It also includes an understanding of the algorithm used to perform these operations.

7. 40012 divided by 22 leaves a remainder 16.
- What will be the remainder if 40012 is divided by 11?
- (Note: You need NOT actually calculate.)
- A. 1
 - B. 5
 - C. 11
 - D. 16
-
8. What will be the remainder when $(200+1) + (300+1) + (400+1) + (500+1) + (600+1)$ is divided by 10?
- A. 0
 - B. 2
 - C. 3
 - D. 5

9. Meena divides a number by 2. She then divides the answer by 2. This is the same as dividing the original number by

(Note: The number leaves no remainder each time.)

- A. 1.
 - B. 2.
 - C. 4.
 - D. (cannot be said as the original number is not known)
-

10. $8 - 4 \div 2 + 2$ is equal to

- A. 1
 - B. 4
 - C. 7
 - D. 8
-

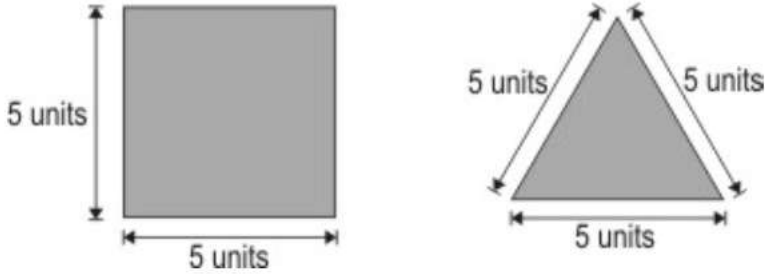
11. $(5698 + 3397) \times 5508 \times (0 \div 2754)$ equals

- A. 0.
- B. 9095.
- C. a number greater than a lakh.
- D. (none of the above as we cannot divide 0 by a number)

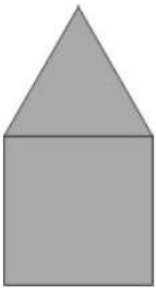
Skill: Area and perimeter: concepts and computations

This skill involves understanding the concepts of area and perimeter and the ability to calculate these for different shapes, and how they change with the shape.

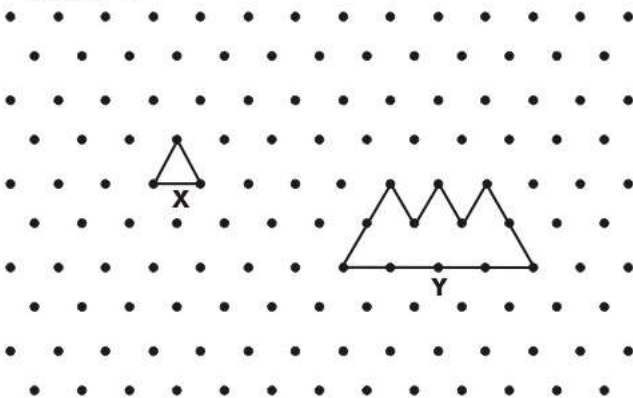
12. Each side of the square and the triangle shown below is 5 units long.



They are arranged to form the shape shown below. What is the perimeter of the shape?



- A. 20 cm
 - B. 25 cm
 - C. 30 cm
 - D. 35 cm
13. Two shapes are shown on the dot grid. If the perimeter of shape X is 3 units, what is the perimeter of shape Y?



- A. 10 units
- B. 12 units
- C. 30 units
- D. 36 units

14. Shaheen has many triangular pieces, each of area 1 sq unit and many rectangular pieces, each of area 2 sq unit.

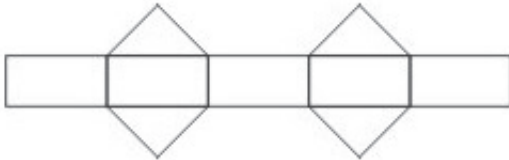


area = 1 sq unit

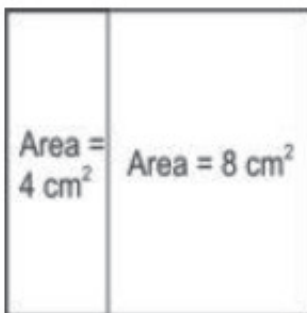


area = 2 sq unit

If she arranges these to form a shape as shown below, what would be the area of this shape?



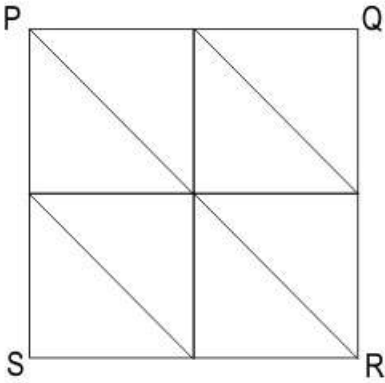
- A. 9 sq unit
B. 13 sq unit
C. 14 sq unit
D. 18 sq unit
-
15. Two smaller rectangles of areas 4 cm^2 and 8 cm^2 are joined along one of their sides to form a bigger rectangle as shown in the figure below.



What is the area of the bigger rectangle so formed?

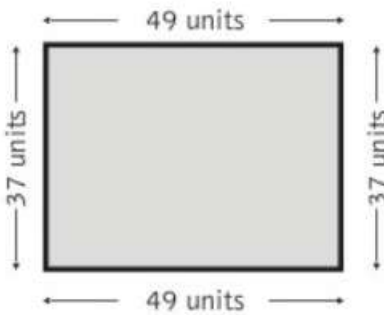
- A. 2 cm^2
B. 4 cm^2
C. 12 cm^2
D. 32 cm^2

16. The area of each small triangle is 2 square units. What is the area of square PQRS (in square units)?



- A. 8
- B. 16
- C. 32
- D. 48

17. A rectangular garden has sides as shown.



How will its area be calculated in square units?

- A. $49 + 37 + 49 + 37$
 - B. $49 \times 37 \times 49 \times 37$
 - C. $49 + 37$
 - D. 49×37
18. What can be said about the two figures given below?



figure 1

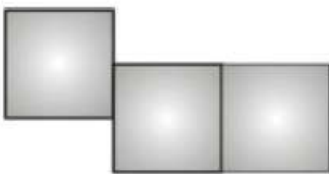
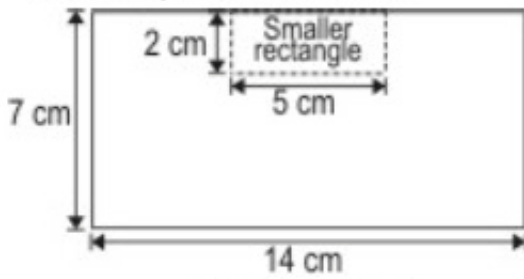


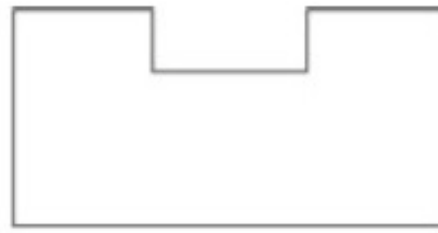
figure 2

- A. Area of figure 1 is more than area of figure 2.
- B. Area of figure 2 is more than area of figure 1.
- C. Perimeter of figure 2 is same as perimeter of figure 1.
- D. Perimeter of figure 2 is more than perimeter of figure 1.

19. A rectangle of sides 5 cm and 2 cm is cut out from a bigger rectangle of sides 14 cm and 7 cm to form a new shape as shown below.



Original rectangle



New shape after the smaller rectangle is cut out

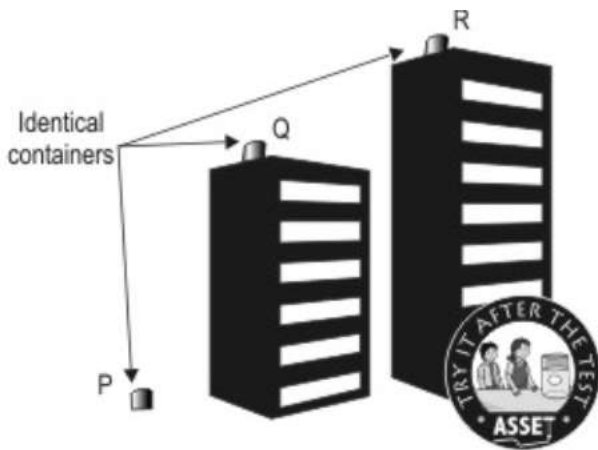
What is the perimeter of the new shape formed ?

- A. 46
 - B. 40
 - C. 22
 - D. 20
- Science**
- Skill: Hypothesis formulation; design of apparatus or experiment**
- A hypothesis is an idea, based on various observations, which can be tested further. We build hypotheses in our heads to explain how things work or to predict how things may happen. However, to confirm whether the hypothesis is accurate, we need to conduct some experiments. These experiments need to be conducted carefully, so that the results can be compared and verified.
20. The picture shows coconut palms growing on a deserted island. How do you think the coconut trees first began to grow there?

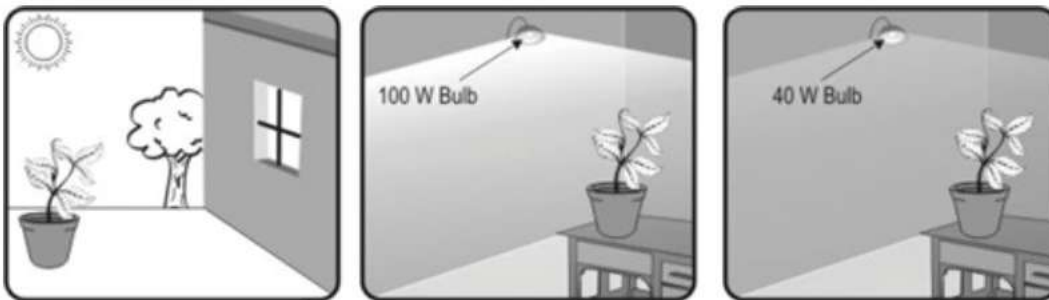


- A. The first coconut tree in the island may not have required a seed to grow.
- B. The first coconut may have floated to the island, carried by ocean currents.
- C. The log of a coconut tree may have floated to the island and grown into the first tree.
- D. The fibrous 'hair' of the first coconut helped the wind carry it to the island.

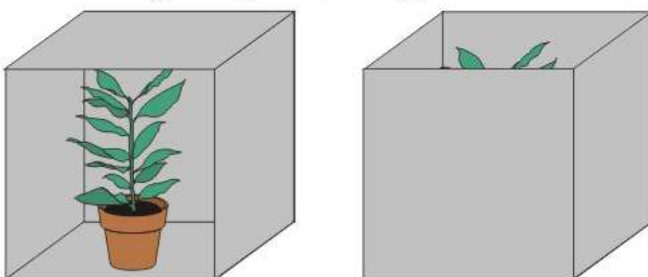
21. Three identical containers P, Q and R are taken, and kept - one on the terrace of a tall building; another on the terrace of a shorter building; and the third in an open space. After a rain, which one will have the highest level of water, assuming no overflow and no obstructions near the containers?



- A. P
 B. Q
 C. R
 D. All three will have the same level
-
22. During photosynthesis plants make food (starch) and it is stored in the leaves or other parts. The plant uses this starch for its growth. Mary took three potted plants similar in every way and kept them in a dark room for 48 hours. The morning after, she tested for starch in the leaves and found it almost absent. She placed the first plant in bright sunshine, the second one inside a room with a 100 W bulb, and the third one inside a room with a 40 W bulb. In the evening she again tested for starch. Answer the question from given information. What was Mary probably trying to find out?



- A. Is air needed for photosynthesis?
 B. Do plants need light for photosynthesis?
 C. Do plants make food in artificial yellow light?
 D. Do plants make more food in some types of light?
-
23. Suresh is growing two plants, placed as shown here in two identical cardboard boxes.



What is he probably trying to test?

- A. Is plant growth affected by the direction of light?
 B. How much light do plants need in order to grow?
 C. Is plant growth affected by gravity?
 D. Do plants grow better in a garden or in a container?

24. **Manu wanted to verify if fertilizers help plants to grow well. He took a potted plant, mixed fertilizer to the soil and took good care of the plant. He also maintained a record of the growth of the plant. The error in Manu's experiment was**
- A. mixing fertilizer to the soil.
 - B. maintaining a growth chart.
 - C. not growing a similar plant without fertilizer.
 - D. watering the plant regularly.
-
25. **Anita conducted a scientific experiment and reported the results. If Anita's results are valid, then others in her class should be able to**
- A. perform the same experiment under the same conditions and obtain the same results.
 - B. perform the same experiment under the same conditions and obtain different results.
 - C. perform the same experiment under different conditions and obtain the same results.
 - D. perform a different experiment and obtain the same results.
-
26. **If the earth were to reverse its direction of rotation, which of these changes is likely to be observed?**
- A. No change is likely to be observed on Earth.
 - B. The sun will rise in the West and set in the East.
 - C. Days will become longer and nights much shorter.
 - D. In India, summer will begin as early as December.
-
27. **If you're standing on the moon holding a pen, and you let it go, it will**
- A. float away.
 - B. float where it is.
 - C. fall to the ground.
 - D. float towards the earth.
-

Skill: Classification/comparison of organisms/processes; giving examples

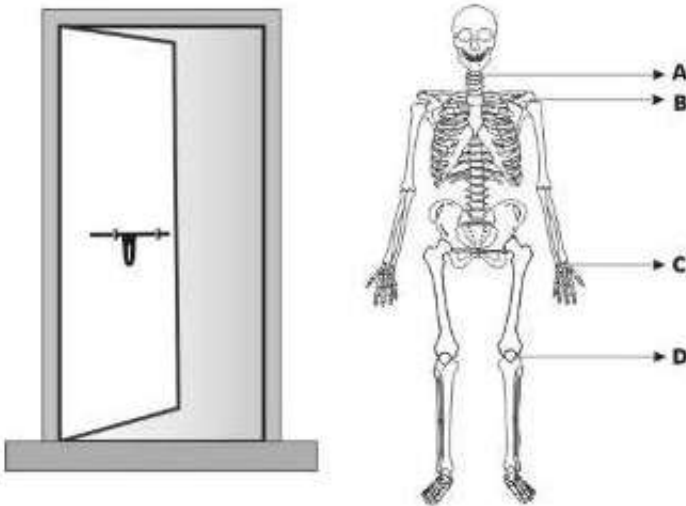
Once we know what the basic characteristics of substances or organisms or processes are, we should be able to group or classify them according to their similarities or differences. The skill of classification is important and is often an essential step in many scientific investigations.

28. **Gitanjali and Rabindra are playing a game. Gitanjali has to find out what Rabindra is thinking about by asking questions. Gitanjali: Is it an animal? Rabindra: YES Gitanjali: Does it have bones? Rabindra: NO Gitanjali: Does it have external ears? Rabindra: NO Gitanjali: Can it fly? Rabindra: YES**

Which of these could be Rabindra's guess?

- A. bat
- B. worm
- C. snake
- D. mosquito

29. In the skeleton shown below, at which joint can the movement be ONLY like the opening and closing of a door?



30.

Opaque	Transparent	Soluble in water	Sinks in water
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Mona was asked to name an example for each of the above mentioned categories. Here is what she found out.

Opaque	Transparent	Soluble in water	Sinks in water
Copper	Mirror	Sugar	A glass bottle completely filled with water

Which of her examples is WRONG?

- A. Copper, because light does pass through it.
 B. Mirror, because light cannot pass through it.
 C. Sugar, because it does not dissolve in water.
 D. A glass bottle completely filled with water, because it will not sink in water.
31. Which option shows the correct order in the life cycle of a plant.

Germination	Flower production	Seed dispersal	Plant growth	Pollination
1	2	3	4	5

- A. 1 - 2 - 3 - 4 - 5
 B. 3 - 2 - 4 - 1 - 5
 C. 5 - 3 - 1 - 4 - 2
 D. 2 - 5 - 1 - 3 - 4
32. Living things are classified into major groups like 'plants' or 'animals'. These major groups are classified into smaller groups based on the similarities between them. Which of the following statements about classification of some living things is true?
- A. A fly is an insect, and also a bird.
 B. A fly is an insect, but not an animal.
 C. A pigeon is a bird, and also an insect.
 D. A pigeon is a bird, and also an animal.

33. A plant's leaf turns sunlight into another form of energy. Which man-made structure is most similar to the plant leaf?
- An electric bulb
 - A solar cell
 - A windmill
 - A candle
-
34. Which of these is OPAQUE?
- Cooking oil
 - A mirror
 - Spectacles
 - River water
-
35. A plant folding its leaves with the slightest touch is similar to
- a cockroach moving away from light
 - a lizard growing a new tail
 - a water lily having a soft stem
 - a fish breathing through its gills
-

Hindi

Skill रुटिगत शब्दों और मुहावरों का अर्थ और प्रयोग

रुटिगत शब्दों का अर्थ है ऐसे शब्द जो एक विशेष अर्थ में ही प्रयोग किये जाते हैं, जैसे-समय बताने वाले विभिन्न प्रकार के प्रचलित नाम जैसे-सवा, डाई, पीना आदि; विभिन्न ध्वनियों के नाम, किसी कार्य का विशेष नाम आदि इनकी जानकारी से भाषा की पकड़ बनती है और उसका सही भाव स्पष्ट होता है। मुहावरे/कहावतें भाषा को सशक्त बनाते हैं। अनेक शब्दों के प्रयोग से भी जो बात अच्छे तरीके से नहीं कह पाते वह मुहावरों के द्वारा कम शब्दों में ही कही जा सकती है। यदि मुहावरों और कहावतों का सही अर्थ मालूम नही हो तो अर्थ का अन्वर्थ हो सकता है।

36. 'अपनी प्रशंसा सुन कर राघव फूला न समाया।' रेखांकित मुहावरे का सही अर्थ क्या होगा?
- खूब मोटा हो गया
 - फूल कर कुम्पा हो गया
 - बहुत शर्मा गया
 - खूब खुश हो गया
-
37. घात्री जगह के लिए उचित (सही) शब्द लिखें- फूलों की कलियों जब _____ हैं तब फूल खिलता है।
- जगती
 - उगती
 - चटकती
 - मुरझाती

38. 'साहिल के जन्मदिन पर सभी मित्रों ने रसगुल्ले खूब मजे से पेट भर कर खाए।' गहरे किए शब्दों के स्थान पर वाक्य को छोटा और रोचक बनाने के लिए इस समाचार में से किस मुहावरे को लिया जा सकता है?
- दावत उड़ाई
 - गुलछर्रे उड़ाए
 - भरपेट खाए
 - छक कर खाए

39. 'मेरी माँ घर आए मेहमानों को देख खुशी से _____।' इस वाक्य में किस मुहावरे का प्रयोग उचित होगा।
- फूली न समाई
 - हक्की-बक्की रह गई
 - आँख चुराने लगी
 - पानी-पानी हो गई

Skill विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग

भाषा में कुशलता लाने के लिए शब्दों और उनके उचित प्रयोग का काफी महत्व होता है। कभी-कभी शब्दों के वाक्य में प्रयोग करने से भी हम उसके अर्थ का अनुमान कर लेते हैं। शब्द कई तरह के होते हैं, समान अर्थ वाले, विपरीत अर्थ वाले, अनेक अर्थ वाले, पर्याय अर्थ वाले, समान सी ध्वनि वाले, कई शब्दों के लिए एक शब्द, शब्द-युग्म, विभिन्न ध्वनियों के नाम, संख्याओं के नाम आदि।

40. 'तुम गलत तरीके से बाइक चला रहे थे, इसलिए वह दुर्घटना तो होनी ही थी।' इस वाक्य में रेखांकित शब्द बनाने के लिए हम कौन-सा शब्द जोड़ सकते हैं?
- अ
 - अन
 - अनु
 - अप
41. 'बिजली के _____ से करंट लगा तो वह बेहोश हो गया। सीमा को जल्दी से बुलाने के लिए _____ भिजवा दो।' इन दोनों रिक्त स्थानों पर एक ही शब्द का प्रयोग करना है, वह शब्द कौन-सा है?
- खंभे
 - तार
 - चिट्ठी
 - संदेश
42. नीचे जो दो वाक्य दिए जा रहे हैं, उनमें दोनों खाली जगहों पर एक ही शब्द आएगा, वह कौन-सा है? (1) तुम्हारे जन्म की क्या _____ है? (2) तुमने जो _____ भेजी है, मुझे मिल गई है।
- तिथि
 - मुद्रा
 - राशि
 - शुल्क
43. 'जब स्वाति के परीक्षा में कम नंबर आए तो उसे बहुत _____ हुई।' रिक्त स्थान के लिए उचित शब्द चुनें।
- डर
 - खुशी
 - दुख
 - प्यार

Answers & Explanation

English

Skill: Identifies facts and makes important connections in comprehending a passage.

1. A: The word "kind" in stanza - 1 of the poem is used as a noun referring to a class of people. In the line from the first stanza - "the kind who likes to tell", the poet is clearly referring to a person. We know this because the poet tells us more about "the kind" using the pronoun "who". "Who" is used only in reference to persons. The word "kind" follows an article (the). Since there are no adjectives between "the" and "kind" and more importantly, as there are no other nouns following "kind", we can safely say that "kind" in stanza - 1 is a noun. Option - D is wrong because although "paper" is usually used as a noun, its work in stanza - 5 of the poem is that of "AN ADJECTIVE". If we look at the line of the poem and consider "paper airplane", we can understand that "paper" is used as an adjective describing the "airplane" (adjective followed by a noun).
2. B: The word "stuff" is found in the third line of the second stanza of the poem.
"the stuff that happened yesterdays, or even long-agos."
In the second stanza, the poet gives us an idea of how good his teacher is in matters related to history. To support the basic idea, the poet talks about things and "occurrences that happened" at some point of time. The poet refers to these happenings and occurrences as "stuff". Option - C: "people" is not correct because the poet goes on to explain "stuff" as that which happened the previous day or several days ago. Something that "happened" cannot simply be persons or "people". Something that "happened" must be some events or "occurrences".
3. C: All the lines in the fourth and the fifth stanzas of the poem end in a rhyme. In the fourth stanza, the lines end with the "ss - sounding" rhyming words: "crows", "grows", "radios", "glows" and "knows". In the fifth stanza of the poem, the lines end with the following "u or you - sounding" rhyming words: "blue", "few", "true", "due" and "too". Option - B is not the correct answer because NOT all the lines of the third stanza end with words that rhyme. The first and the third line of the third stanza end with words like "me" and "report" which neither rhyme with each other nor with the other endings like "wrong" and "song".
4. C: The "know-it-all" in the poet's class is "a teacher". The last two lines of the poem gives us a clear answer: "But someday I will be like her... I'm going to be a teacher." Option - A (a classmate) is NOT correct because the poet clearly states in these two lines that "someday" he wants to become "like her". In the last line, the poet declares that "he will become a teacher". We can also understand that the poet is indeed talking of his teacher and NOT one of his classmates in the beginning of the third stanza: She's constantly correcting me ...if I'm a little wrong. It is our teacher who often corrects us when we do wrong or make mistakes and NOT "one of our classmates".
5. C: In the line "But someday I will be like her..." at the end of the poem, the poet announces that someday he will be like her. The fact that the poet declares "I will be like her..." is "a sign of determination". It also gives "a sign of inspiration" that the poet draws from "her", in this case from "his teacher". Option A cannot be the correct answer as it is a basic statement that the poet makes and contains NO "signs of inspiration and determination". The poet not only uses the given line in the poem, he also gives the poem the same title: "My Class Has Got a Know-It-All" to put the basic idea of the poem forward.
6. B: The word "admiration" sums up the poet's feeling for the person who "knows-it-all". We can understand the poet's feeling from the last stanza of the poem. The poet tells us: "You might think I'd be angry with this great-smart creature." But the poet soon clarifies that he is NOT angry with the "Know-it-all". He, in fact, goes on to say: "But someday I will be like her..." This shows great "admiration" for this person. Option - D (encouragement) is not correct because we can clearly see that throughout the length of the poem, the poet speaks very highly of the "Know-it-all". This "feeling" cannot be anything but "admiration". "Encouragement" is not of "feeling". "Encouragement" is something you either give to someone to raise that someone's confidence or you get from someone that results in an increase in your own confidence. So you don't feel "encouragement", you either give or get it.

Maths

Skill: Arithmetic operations: four basic operations, properties

7. B: The problem is the same as that "if 40012 objects are put into groups of 22 each, it leaves out 16 of the objects. If 40012 objects are put into groups of 11 each instead of 22, how many objects will be left out?"
Each group of 22 can be split into 2 groups of 11. Of the 16 objects remaining, one can form a group of 11 leaving out 5 objects. So, 5 is the remainder if 40012 is divided by 11.
8. D: Can you see that the sum $(200+1) + (300+1) + (400+1) + (500+1) + (600+1)$ is the same as $(200 + 300 + 400 + 500 + 600) + (1 + 1 + 1 + 1 + 1)$? The number in the first bracket is exactly divisible by 10. So the given sum will leave the remainder 5.
9. C: Can you see that the problem is the same as "Meena divided some objects into 2 equal groups. She then further divided each group into two equal groups. This is same as dividing objects into ___equal groups.?"
The result is the same as that if she divided these objects into 4 equal groups. Thus, what Meena did is the same as dividing the original number by 4.

10. D: We need to use BODMAS rule to decide the order of operations and not perform them left to right. That is we need to perform the operations in the order Brackets, of, Division, Multiplication, Addition and then Subtraction. So here division is to be performed first. So, $8 - 4 \div 2 + 2 = 8 - (4 \div 2) + 2 = (8 - 2) + 2 = 6 + 2 = 8$.
11. A: $0 \div 2754 = 0$ and $5508 \times 0 = 0$. So, $(5698 + 3397) \times 5508 \times (0 \div 2754) = (5698 + 3397) \times 0 = 0$.
Note that we are here dividing 0 by a number and not dividing a number by 0.

Skill: Area and perimeter: concepts and computations

12. B: The square has a perimeter of $5 + 5 + 5 + 5 = 20$ units. When the new shape is formed by placing the triangle on the square, 2 additional sides of 5 units each are added and one side of the square and one side of the triangle are no longer on the boundary. So the boundary of the new shape is made of 3 sides of the square and 2 of the triangle, each 5 units long. So the perimeter is $5 \times 5 = 25$ units.
13. B: We are given that the perimeter of shape X is 3 units. Its boundary is made up of 3 straight lines of equal length. So each is of length 1 unit. That is the distance between two neighboring dots on the grid is 1 unit. Going along the boundary of shape Y, counting the number of such units, we see that there are 12 units. So the perimeter of shape Y is 12 units.
14. C: The given shape is made of 5 rectangles and 4 triangles. The area of the shape is the sum of the area of these individual shapes. The area of each rectangle is 2 square units, so the area of 5 such rectangles is $5 \times 2 = 10$ square units. The area of each triangle is 1 square unit. So the area of 4 such triangles is 4 square units. So the total area of the shape is $10 + 4 = 14$ square units.
15. C: When we join two smaller rectangles to form a larger one, the area covered by the larger rectangle is the sum of the areas of the 2 smaller rectangles. So the area of the larger rectangle here is $8 + 4 = 12 \text{ cm}^2$. When we have a rectangle whose length is 8 cm and breadth is 4 cm, we multiply 8×4 to get the area. But that is NOT the case here. Here 8 and 4 are the areas of the smaller rectangles.
16. B: We see that the square is divided into 8 identical small triangles. We are given that the area of each small triangle is 2 square units. So the area of the square = area of 8 such small triangles = $8 \times 2 = 16$ square units.
17. D: The area of the figure in square units is the number of unit squares required to just cover the figure completely. Let us try covering the figure with unit squares. We need to have 49 unit squares in a row (along the length of the figure) as the length of the figure is 49 units. (Remember a unit square is a square whose side is 1 unit long.) To completely cover the figure we need to have 37 such rows. So the total number of unit squares = 49×37 . This is the area of the figure in square units.
18. D: Figure 2 is formed from figure 1 by just moving one of the tiles. Both the figures are still made of 3 identical tiles, and so their areas will be the same. The perimeter of a figure is the total length of its boundary. Compare the boundaries of the 2 figures. In figure 2 do you see that some parts of the boundaries of the first 2 tiles, that were inside the figure in figure 1, are exposed in figure 2, as a result of the movement? Also no part of the boundary that is exposed in figure 1 is covered up in figure 2. So the total length of the boundary of figure 2 is greater and so it has a greater perimeter.
19. A: The perimeter of the larger rectangle = $7 + 14 + 7 + 14 = 42 \text{ cm}$. Let us see how the boundary of the larger rectangle changes when we cut out the smaller rectangle. A portion of the boundary of the larger rectangle of length 5 cm is cut off when the smaller rectangle is cut out. To compensate for this decrease, another length of 5 cm is added to the boundary further down. Also two 2 cm lengths corresponding to the width of the smaller rectangle are also added to the boundary. So the total change is 4 cm added to the boundary of the larger rectangle. So The perimeter of the new shape is $42 + 4 = 46 \text{ cm}$.

Science

Skill: Hypothesis formulation; design of apparatus or experiment

20. B: Most trees grow from seeds. Humans can use other plant-parts and grow trees using different techniques, but this would not happen on a deserted island. Hence, A and C cannot be correct. Option D cannot be correct because a coconut is too heavy to be carried by the wind, even with the hair or husk of the coconut. A coconut must have floated and landed on this island and then grown to form a tree, from which other trees grew.
21. D: If 3 identical containers are kept in places that are unobstructed, which means that there is nothing covering it and rain can fall into them directly, then they will all contain the same levels of water if they are in the same region. Thus, option D is the correct answer.
22. D: In each of the cases, the plant is exposed to different amounts of light and when Mary checks the amount of starch at the end of each of these cases, the effect of light on the amount of starch produced can be checked. A and B cannot be correct as air and light are present in all three cases and C is not correct because there would be no need for two cases with artificial light.
23. A: The only thing different in both the cases is the direction from which light is available to the plant. In one case, the light comes from the side and in one case, it comes from the top. The amount of light and gravity is not different in both cases, so options B and C cannot be answered by this setup. Also, both plants are in containers, so option D also cannot be answered.

24. C: When you want to compare whether a plant can grow faster with fertilizer, you also need to grow a plant without any fertilizer, but keep all the other conditions exactly the same. If you don't do this, you will not be able to compare the results scientifically. This was Manu's error. He did all the right things by mixing fertilizer to the soil, maintaining a growth chart and watering the plant regularly, so options A, B and D cannot be the correct answer.
25. A: When an experiment is done under the same conditions, the results obtained would also be the same. If the results seem different, we are probably not considering some conditions that may have varied a bit.
26. B: We see the Sun rising from the East and setting in the West because the Earth rotates from West to East. If this direction of rotation is reversed, the Sun would appear to rise from the West and set in the East. Also, simply changing the direction of rotation will not change the period of time for which the Sun faces different parts of the Earth and hence, the length of the days and nights will not change. Hence, option B is the only correct answer.
27. C: Although slightly less than the Earth's gravity, the Moon also exerts a gravitational pull. So, if you were to let go of a pen on the Moon, it would fall to the ground.

Skill: Classification/comparison of organisms/processes; giving examples

28. D: Those living organisms which cannot make their own food and depend on others for food are called 'animals'. Bat, snake, insects like mosquitoes and worms are all animals. Some of them have bones, like bats and snakes while some do not, like all insects and worms. Such animals without bones do not have any external ears. Some animals with bones have external ears and are known as mammals, like the bat. Hence A is incorrect.
29. D: The knee joint is a type of hinge joint. It is allowed to move in only direction and not in any other (that is why we can only bend our knees backwards and not forwards) like a door on a door hinge. The wrist joint is a type of gliding joint where two bone plates slide against one another. Hence C is incorrect.
<http://www.elcosh.org/en/document/521/d000506/knee-pain-and-discomfort.html>
<http://arthritis.about.com/od/arthritisbyanatomy/g/joint.htm>
30. B: Light rays cannot pass through a mirror but are reflected from its surface, hence it is opaque and not transparent. It appears shiny because of reflection on its smooth surface which forms images. An empty glass bottle will float in water but if the same bottle is completely filled with water, it will sink. Hence D is incorrect.
31. C: Pollen is transferred from one flower to another by pollination. This leads to fertilization in the flowers leading to formation of fruits containing seeds. The seeds are further dispersed to other places and they germinate under favourable conditions. A plant grows from the germinated seed and produces flowers. Seeds do not directly produce flowers, nor does germination lead to pollination hence B is incorrect.
32. D: Generally, living things that produce their own food with the help of sunlight are called plants and those that are dependent on other living beings for food are called animals. A fly as well as a pigeon fall under the Animal group. However, flies are insects and pigeons are birds. Hence, option B is incorrect.
33. B: The leaf of a plant uses sunlight, carbondioxide and water to make food which is later used to give energy. A solar cell also captures sunlight and converts it into some other form of energy. Hence B is correct. A windmill does not use sunlight but uses wind energy which is converted to some other form of energy. Hence C is incorrect.
34. B: A mirror is opaque, that is light rays cannot pass through it but they are reflected from its surface. As its surface is smooth, images are formed due to reflection and it appears shiny. The glasses used in spectacles and water are both transparent materials through which light can pass through. Some light will pass through even the darkest of the cooking oils. Hence A, C and D are incorrect.
35. A: Living organisms respond in some way to different external conditions like light, smell, touch etc. Some plant leaves respond to external touch by folding leaves while some insects like cockroach prefer dark places and respond to light by moving from bright places to dark ones. A water lily having a soft stem is characteristic of its parts and is not a response to any external condition hence C is incorrect.

Hindi

Skillरूढिगत शब्दों और मुहावरों का अर्थ और प्रयोग

36. D: इस मुहावरे का अर्थ होता है- बहुत खुश होना। अतः D ही इसका सही उत्तर है। वाक्य में बताए गए वर्णन से भी इसके अर्थ का अनुमान लगाया जा सकता है। विकल्प A और C वाक्य के भाव से मेल नहीं खाते। B विकल्प में भाव सही है, पर यहाँ पर मुहावरे का अर्थ नहीं बताया गया है, बल्कि इसी अर्थ का दूसरा मुहावरा दिया गया है।
37. C: कली जब फूल बनती है तो शुरु में उसमें एक पतली सी दरार आ जाती है, जिसे कली के लिए या किसी शीशे की चीज के लिए 'चटकना' बोला जाता है। 'जागना' शब्द इंसानों अथवा जानवरों के लिए प्रयोग किया जाता है। जो ज़मीन में से निकलता है, उसे 'उगना' कहते हैं और जो खिलने के बाद सिकुड़ जाते हैं, उसे 'मुरझाना' कहते हैं।
38. D: 'खूब मज़े से पेट भर कर खाए'- इसमें यह वाक्य मुख्य है, इसलिए यहाँ 'छक कर खाए' वाला मुहावरा आएगा। A इसलिए नहीं आएगा क्योंकि यहाँ रसगुल्लों की बात हो रही है, दावत तो चल ही रही है, C इसलिए नहीं हो सकता क्योंकि भरपेट में आनन्द का भाव नहीं है। 'छक कर खाने' में आनन्द का भाव छुपा है।

39. A: 'फूली न समाई' मुहावरे का अर्थ है बहुत अधिक खुश हो जाना। इस वाक्य में यही भाव आ रहा है, अतः यहाँ इसी मुहावरे का प्रयोग उचित होगा। 'हक्की-बक्की रह गई' का अर्थ होता है चकित हो जाना, 'आँख चुराने लगी' का अर्थ है सबसे बचना और 'पानी-पानी होने' का अर्थ है- शर्मिन्दा होना। यह सभी अर्थ इस वाक्य के साथ मेल नहीं खाते इसलिए A ही सही विकल्प है।

Skill विभिन्न प्रकार के शब्दों का ज्ञान एवं उचित प्रयोग

40. B: 'होनी' शब्द का विलोम शब्द होगा 'अनहोनी', सो 'अन' लगाने से होनी शब्द उसके विपरीत अर्थ वाला बन जाएगा। अन्य शब्द 'अ', 'अनु', 'अप' यदि लगा कर देखें तो सही शब्द नहीं बनेंगे।
41. B: दोनो वाक्यों में जिस एक शब्द का प्रयोग किया जा सकता है वह है- तार। तार का एक अर्थ जल्दी से भेजा जाने वाले संदेश होता है और दूसरा तार जिसमें बिजली का करंट होता है। यही वह शब्द है जो दोनों वाक्यों में अर्थ दे रहा है।
42. C: दिए हुए दोनों वाक्यों में एक ही शब्द का प्रयोग है पर उसके अर्थ अलग-अलग हैं। राशि शब्द ऐसा है जिसके दो अर्थ हैं- (1) नक्षत्र / ग्रह / विशेष तारा समूह ; (2) मूल धन / समूह में किसी वस्तु का होना, जैसे- धन-राशि, जल-राशि, रत्न-राशि आदि। तिथी का अर्थ है दिन, मुद्रा का अर्थ किसी भी देश में चलने वाला सिक्का, शुल्क का अर्थ फीस होता है। तिथी शब्द का प्रयोग पहले वाक्य में सही लग रहा है पर दूसरे वाक्य में सही नहीं है।
43. C: कम नम्बर आने पर खुशी और प्यार शब्द नहीं आ सकते। डर शब्द भी नहीं आ सकता क्योंकि डर के साथ लगा (डर लगा) शब्द आता है, इसलिए यहाँ दुख शब्द ही सही प्रयोग होगा।



Ei Mindspark

Ei Mindspark is a personalised learning software that allows children to effectively advance at their own pace. Everyday, Ei Mindspark delivers over 2 million questions, and the data collected is used to enhance the child's learning pathway.

Ei Mindspark

Maths

Aligned to CBSE, ICSE, IGCSE, Common Core State Standards (U.S curriculum), CAPS (South African curriculum)

Available for classes 1 - 10

Ei Mindspark

English

Follows international learning and literacy standards

Available for classes 3-9

Ei Mindspark

Science

Aligned to CBSE and ICSE

Available for classes 6-10

Ei Mindspark is recognised by the world



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Ei Mindspark has been part of the HBS CASE Citation
Cole, Shawn, and Tony L. He. "Ei Mindspark: Improving Educational Outcomes in India." Harvard Business School Case 217-060, March 2017.



Ei Mindspark selected as a top innovation for ICT in education award in 2018 & 2019 for use of Artificial Intelligence to improve teacher learning processes & was a Finalist of the UNESCO King Hamad Bin Isa Al-Khalifa Prize"



Abdul Latif Jameel Poverty Action Lab (J-PAL)

In independent research led by Economist Karthik Muralidharan from J-PAL South Asia has proved that Ei Mindspark is a top-notch ed-tech solution to improve elementary education. A randomized control trial (RCT) of Ei Mindspark by J-PAL shows 2-2.5x gains in students' learning outcomes relative to control schools and a 7-8x gain in DIB Lucknow.



One of the interventions tried in Rajasthan- Ei Mindspark, which is run by a private company, has proved effective with science and math learning for kids. It identifies the stage at which the child is and takes him or her to the next level through a personalised learning journey.

– **Nobel Laureate, Abhijit V Banerjee**
Professor of Economics at MIT and
Co-Chair of the Global Education Evidence Advisory Panel



I saw the potential in using Ei Mindspark. So we took it and there was no looking back. Mindspark is hugely popular with the parents, the children and the teachers. Though we have changed many other resources, Mindspark has stayed.

– **Asha Alexander**
Principal at GEMS Legacy School, Dubai



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