



SCIENCE

SAMPLE BOOK



SCIENCE



I'm the
Intelli Kid

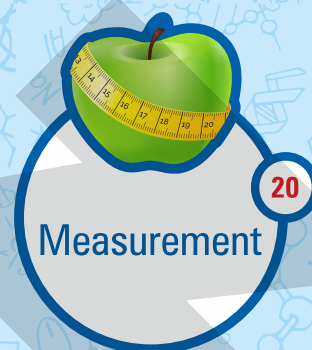
and
I'm becoming the
Best Version
of myself with





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GRADE-3






I AM PROGRESSING

(Tick mark the columns after achieving the Learning Milestones)



TOPIC	1 st Learning	Exercise Solving	1 st Revision	2 nd Revision
 Matter & Materials				
 Air, Water & Weather				
 Measurement				
 Earth & The Universe				
 Light, Sound & Force				
 Transport & Communication				
 Rock, Soil & Minerals				
 Good Habits & Safety Rules				
 Pollution				

SCIENCE

SAMPLE THEORY

CHAPTER 5

LIGHT, SOUND & FORCE

Light

Light is a form of energy which excites our sense of sight.

The stars are natural sources of light.



The Sun is the most important source of light.

Speed of light is 3×10^8 m/s.

Luminous & Non-Luminous Objects

Luminous Objects

The objects which emit their own light are called "luminous objects".

Examples:



Sun



Star



Tubelight



Candle

Non-Luminous Objects

The objects which do not emit their own light are called "non-luminous objects".

Examples:



Moon



Plant



Chair



Parachute

Opaque, Translucent & Transparent objects

Opaque



Opaque objects don't let the light to pass through them & reflect all of it.

Translucent



Translucent objects blur the light that passes through them & reflect it partially.

Transparent



Transparent objects allow almost all light to pass through them & don't reflect it.

Shadow

A shadow is an area where direct light from a light source cannot reach due to obstruction by an object. A shadow is a dark area where light from a light source is blocked by an opaque object. The size of the shadow depends on the size of the object, the distance from the light source to the object and the distance from the light to the screen. Shadow is always formed on the opposite side of the light source.



Sound

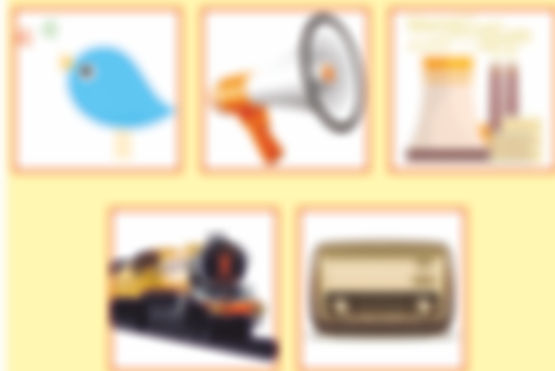
We hear various types of sounds every day. The chirping of birds, the ringing of the doorbells, the honking of horns and mobile ringtones are some of them. When we speak or laugh, we produce sound. Some sounds make you feel happy while others irritate you. Everyone gets disturbed by a loud noise. The speed of sound in air is 343 m/s.

Standard Unit: dB (decibel)



Have you ever noticed the sound from a low flying jet rattling the dishes in the kitchen? When an object makes sound, it vibrates back and forth. The vibrations of a drum alternately squeeze air particles and then spread them out.

Different types of Sound



Some objects produce very sharp sounds. Such sharp sounds are known as high pitch sounds. **Example:** Female voice, sound of a whistle, call of a cuckoo bird etc.

Some objects produce heavy sounds which are known as low pitch sounds. **Example:** Male voice, a frog's croak, drum beats etc.

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SAMPLE EXERCISE









EXERCISE

GRADE-3

Light, Sound & Force



Directions: Solve the following multiple choice questions by choosing the most appropriate option.

1. **The standard unit of sound is _____.**
(1) newton (2) decibel (3) kelvin (4) metre
2. **Mehar's brother visits the gym daily to burn his fat. Which of the following forces are being applied by his muscles to carry out this activity?**
(1) Muscular force (2) Magnetic force
(3) Gravitational force (4) Both (2) and (3)

3. **A magnet will attract which of the following materials?**
(1)  (2)  (3)  (4) 
4. **The trolley bags that we use while travelling are easy to carry because the wheels minimize the _____ force.**
(1) gravitational force (2) frictional force
(3) magnetic force (4) All of the above

5. **An apple always drops down on the ground because of the _____ of the Earth.**
(1) beauty (2) water
(3) gravity (4) purity
6. **Manoj made the following pairs on the basis of the similarity in the pitch of the sound. Which of the following is an INCORRECT pair?**
(1) Female voice, Whistle
(2) Male voice, Cuckoo bird
(3) Drum, Frog
(4) School bell, Fireworks

7. Ramesh accidentally dropped some oil on a white A4 size paper. Which of the following changes may have happened to the paper?

- (1) Opaque to Transparent (2) Translucent to transparent
(3) Opaque to Translucent (4) Transparent to Translucent



8. Pick out the luminous object from the following.

- (1)  (2)  (3)  (4) 

9. Ramesh placed the following objects in the sunlight. Which of these objects won't make any shadow on the ground?

- A.  B.  C.  D. 

- (1) Both A and B (2) Both B and C (3) Both C and D (4) Only D

10. Which of the following body parts do we use for hearing sound?

- (1) EARS  (2) NOSE  (3) HANDS  (4) EYES 

11. In a scrapyard, iron objects are often separated out with the help of a crane. According to you, which of the following materials is present in the crane that attracts all the iron objects towards it?

- (1) Steel (2) Magnet
(3) Ceramic (4) Wood



12. Ramesh went to the market and bought some vegetables and clothes in two different bags made of plastic and cloth respectively. In which of the bags will the material kept inside be clearly visible?

- (1) Plastic bag
(2) Cloth bag
(3) Both Plastic and Cloth bag
(4) Depends on the transparency of the material used for making these bags

