

BIOTECHNO ACTIVITY BOOK

CLASS - I

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EDUHEAL FOUNDATION
• LEARNING FOR LIFE •

Enhancing awareness & knowledge in children about BIOTECH



Preface

Biotechno Activity Book is a small step towards encouraging school students to take up Biotechnology. These activity books, meant for free distribution to students enrolled for Nationwide Biotechnology Olympiad (NBtO) will help students generating interest for Biotechnology. We at EduHeal Foundation still need a lot of help and encouragement from school teachers and Principal in accomplishment of our goal. It is you, who form the vital link between EduHeal Foundation and students as you can further encourage students to know about Biotechnology on a day to day basis. We will also not sit idle but make all possible efforts to increase interest :

- By publishing books like **Biotechno Activity Book**.
- Create awareness by conducting Nationwide Biotechnology Olympiad.
- Teacher Training Programme in pure and applied sciences.
- Career Development Workshop for Students.
- **Online course management system** so as to provide an affordable platform to schools for online teaching and testing.
- Networking to enhance school/Govt./ Industry Interface.

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With best wishes

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CLASS - 1

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SYLLABUS GUIDELINES

(based on National Curriculum frame work issued by NCERT)

1. About Plants

What are their types, how do they grow, what they give us. How they are useful to us. What are major parts of plants, seed, flower, leaves.

2. About Animals

World of animals, types of animals, what they eat, where they live, what are their groups called, what are the names of their home, how they grow.

3. Air

What is Air, why it is necessary, fun with air, what can we do with air.

4. Water

Why we need water. What are the work where we use water. Forms of water.

5. Weather

Day and night, Sunny day, Cold day, Rainy day, Summer, Monsoon.

6. Sky & Space

General idea about Sun, Moon, Stars. Indian people at moon and space.

7. Our needs & habits

What we need to keep ourselves healthy : cleanliness, Good food, exercise, walk, clothing etc. What good habits we should follow.

8. Safety First

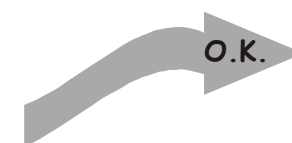
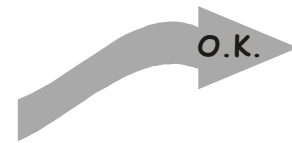
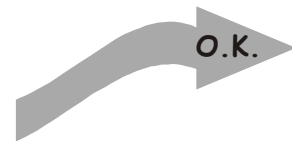
Precautions to take while on Roads, when plaing outdoor games, when in home.

LOOKING AROUND

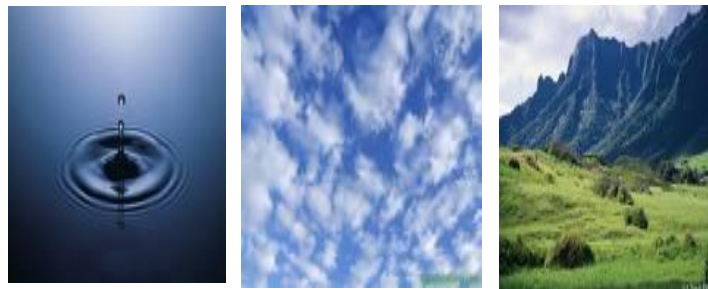
Hello friends !

Don't look here & there ! You cannot see me. So, only hear me and enjoy the things.

Tell me what are the things that you see here.



Anything else ?



I know that your answer will be **humans, Plants, Animals etc.**

Do you know what all these are called ?

They all form our **ENVIRONMENT** or **SURROUNDINGS**.

Plants

They are of different sizes.

Trees are large and tall. They have strong trunk.

They live for many years.



Neem



Mango

Tell me two more trees name and paste their leaves.



Shrubs are smaller than trees.

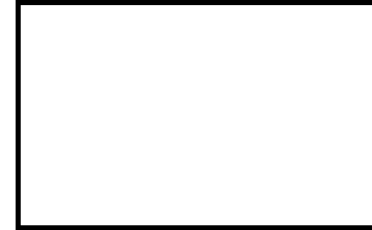


Rose plant



Cotton plant

Tell me two more shrubs name and paste their leaves.



Herbs are very small and have soft stems.



Rice plant



Brinjal plant

Tell me two more herbs name and paste their leaves.



Apart from these some plants are weak. They can not even stand their own. They need support to stand. These are climbers.



Bean plant



Pea plant

Tell me two more climbers name and paste their leaves.



Animals

Some are big and some are small.



Whale and

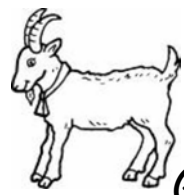
are big animals.



Elephant



Deer



Goat



Dog

are small animals.

Birds like



Crow



Sparrow

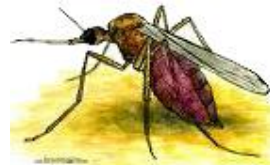


Parrot can fly in the air.

Insects are very very small animals.



Butterfly



Mosquito



Housefly

Do you know any other type of animals or plants ?

Oh ! No! I forgot to tell you about myself. There are some other things which are very very very small. You

can not see them with your eye. You may have heard about **germs**. They are also called **microbes**.

Know more about me in **Biotechno Activity Book** for class 5 & 6.

ACTIVITY - 1 :

Match the following

1.



(A) Tree

2.



(B) Shrub

3.



(C) Climber

4.



(D) Herb

THIS IS DNA



Hey! Kids do you know what the following structure represents.



This is DNA

I won't tell you the full name as it will be too difficult for you. But I think you must have heard about it in the detective serial CID shown on T.V.

DNA itself is a topic for higher classes but as the world is moving with a fast speed you must be aware that it is the DNA which makes you YOU and me ME. DNA responsible for making changes in the plants, animals and humans. You are somewhat similar to your mom and somewhat similar to your dad. This is also because of DNA. DNA is unique for a person and hence

CID is able to catch criminals with the help of DNA.

What does this resemble?

A ladder (twisted)

B pencil

C pen

D eraser

BIOTECHNOLOGY

Ask me what is Biotechnology ?

Biotechnology is using of microbes, plants or animals to make good foods, crops and other things useful to us. Curd, cheese, bread are made by this technology.



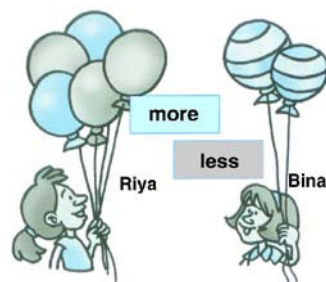
Cows that give more and more milk, plants that give more and more crops can also be made. Vaccines protect you from bad germs.

So, work hard to become a Biotechnologist.

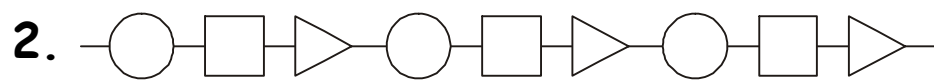
SAMPLE PAPER

MENTAL ABILITY

1.



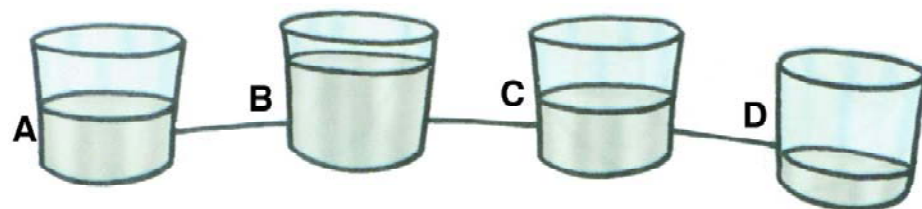
What is the total number of balloons in the picture?
(a) 7 (b) 5 (c) 6 (d) None of these



Which shape comes next

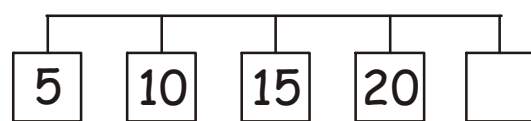
(a) (b) (c) (d) None of these

3.



Which two glasses have an equal amount of juice?
(a) A, B (b) C, D (c) A, C (d) None of these

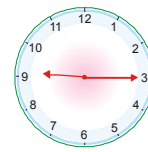
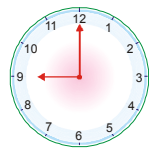
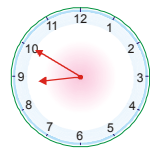
4.



What comes in the empty box

(a) 30 (b) 25 (c) 40 (d) None of these

5. Monday Tuesday Wednesday






Geeta went to school for last three days as shown.
When did she reach school on Wednesday?

- (a) 10 O'clock (b) 9 O'clock
(c) 9:15 O'clock (d) None of these

SCIENCE

6. Which of the following is not living?

- (a)  (b)  (c)  (d) None of these



These plants are mostly found in
(a) water (b) mountains
(c) desert (d) None of these

8. Fruits are formed from
(a) leaves (b) flowers (c) stem (d) None of these

9. The valuable part of elephant is/are
(a) ears (b) teeth (c) trunk (d) None of these



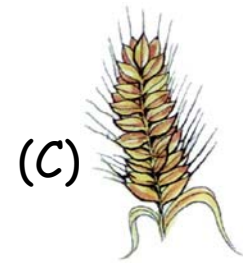
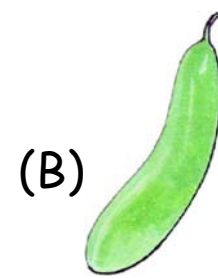
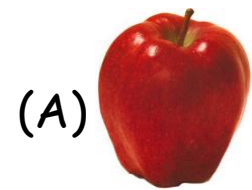
10. Balloon becomes bigger and bigger when you

blow air into it because,

- (a) moisture in the mouth takes space
(b) balloon takes space
(c) air takes space
(d) none of these
11. Which is correctly matched.
- | | |
|-----------|-------|
| (a) Sun | cold |
| (b) Moon | green |
| (c) water | clean |
| (d) plant | hot |
12. Water is not used for
- | | |
|----------------|-------------------|
| (a) drinking | (b) washing |
| (c) irrigation | (d) None of these |
13. Which of the following you don't do at night?
- | | |
|---------------|---------------|
| (a) dinner | (b) see stars |
| (c) breakfast | (d) sleep |
14. Seed needs _____ to become a small plant.
- | | |
|----------|----------------|
| (a) food | (b) air, water |
|----------|----------------|

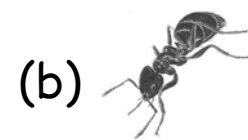
(c) air, water and light (d) none of these

15. Which of the following is a cereal ?



(D) None of these

16. Find the odd one



17. Snake lives in / on

(a) trees

(b) mountains

(c) burrows

(d) None of these

18. Which of the following is right ?

- (a) frog is bird (b) fish has wings
(c) pigeon is an insect (d) snake has no legs

19. Why should we have to brush our teeth each day?

- (a) Mom will beat you
(b) Your elders brush everyday, so you have to follow them.
(c) Germs in the mouth make the teeth unhealthy
(d) Teeth will become black

20. The flower that bends towards sun is

- (a) cauliflower (b) rose flower
(c) sunflower (d) lilly flower

BIOTECHNOLOGY

21. Biotechnology uses

- (a) plants (b) animals (c) humans (d) all

22. Mom forgot to boil the milk yesterday. What happened with the milk.

- (a) It changed to cheese
(b) It changed to Butter
(c) It changed to curd
(d) None of these

23. What is made by biotechnology?



Bread



Book



House

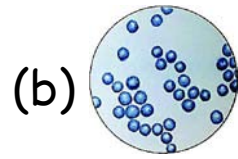


Computer

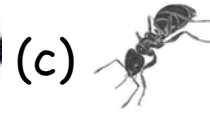
24. Which of the following is smallest?



mouse



microbe



ant

(d) None of these

25. _____ of cow is used as fuel.

(a) Milk (b) Skin (c) dung (d) None of these

ANSWERS

- | | | | | |
|---------|---------|---------|---------|---------|
| 1. (a) | 2. (a) | 3. (c) | 4. (b) | 5. (c) |
| 6. (a) | 7. (c) | 8. (b) | 9. (b) | 10. (c) |
| 11. (c) | 12. (c) | 13. (c) | 14. (c) | 15. (c) |
| 16. (d) | 17. (c) | 18. (d) | 19. (c) | 20. (c) |
| 21. (d) | 22. (a) | 23. (a) | 24. (b) | 25. (c) |