

HOLIDAYS HOMEWORK (SCIENCE) 2026-27

Class 8

1. Interdisciplinary project-

“Nature’s Treasure: National Parks and Sanctuaries of Andaman & Nicobar”

Due to geographical isolation, the Andaman and Nicobar Islands are home to a variety of unique endemic animals and plant species. The islands’ isolation from mainland India has allowed several birds, mammals, and reptiles to evolve into distinct subspecies found nowhere else on Earth.

Lush evergreen forests cover almost 80% of the land area of the islands.

Although taxonomic studies are still far from complete, current species lists include over 60 species of mammals (33 endemics), 214 species of birds (106 endemics), 72 species of reptiles (25 endemics), and 19 species of amphibians (10 endemics).



Answer the following questions-

- 1) Locate any 5 National Park, wildlife sanctuary and one biosphere reserve of Andaman Nicobar Island on India’s Map.
- 2) Write the names of some endemic and endangered species of flora and fauna of these places with pictures.

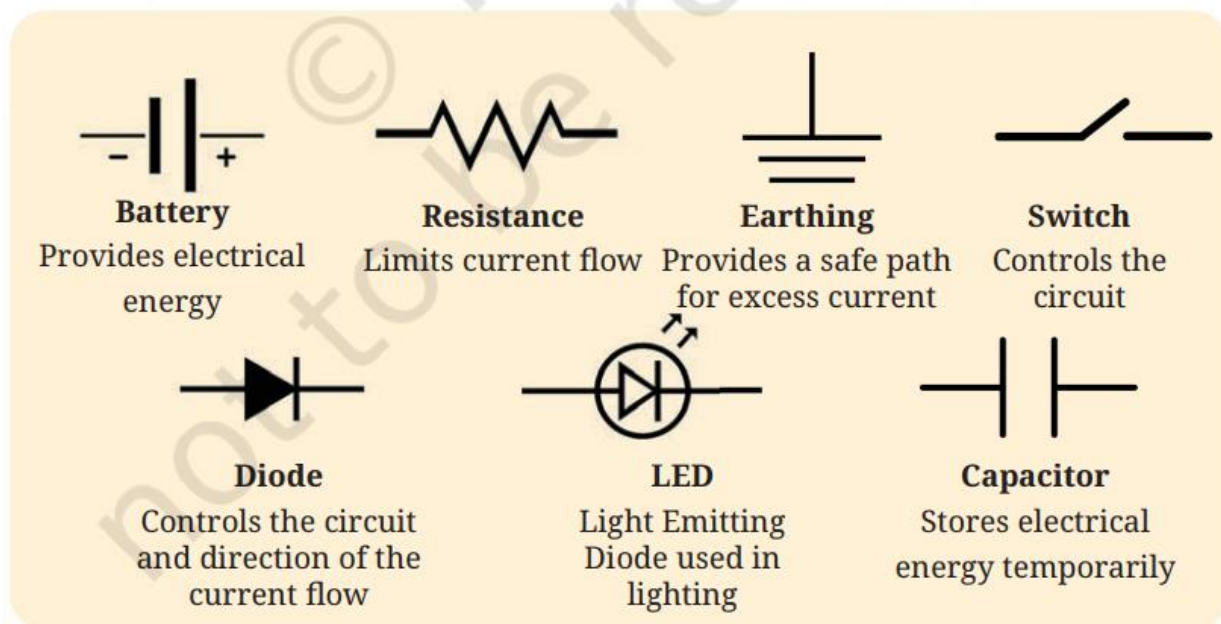
3) What are various Acts implemented by DEPARTMENT OF ENVIRONMENT & FOREST Andaman & Nicobar Administration for the conservation of wildlife?

4) What is the importance of “Chidiyatappu” in Andaman Nicobar Island. Paste relevant pictures.

Note- Do this work in a scrap file.

2) VOCATIONAL EDUCATION (KAUSHAL BODH PROJECT): Automation means using technology to control everyday devices automatically.

Study few circuit symbols here-



Explore Now: Tinkercad is a simulation platform. You can explore other platforms using the following search words: Simulation for building circuits for beginners Platform for making circuits You can search for tutorials for simulations. For example, you can use the search keywords, ‘Tutorial for making electronic circuit + Tinkercad’.

Now, make a simulated circuit using the following components: LED, 220 ohms resistor, DC battery 9V, switch y Buzzer, 220 ohms resistor, DC battery 9V, switch Follow the steps in Figure 4.6 to make and test circuits.

Step 1: Draw the circuit you want to test.



Step 2: Open Tinkercad or any other simulation platform.

Step 3: Open workplace and place the required components.



Step 4: Make connections and test the circuit.

Figure 4.6: Using simulation to build and test circuits

Now, design a few circuits on your own and try them out. Answer the following questions based on the circuits you designed on the simulation platform.

1. Which software did you use?

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2. Did your circuits work? Try different components, such as other batteries and resistance values. Write down your observations of changes as a result of these trials.

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3. Draw circuit diagrams of the circuits you designed.



Following are examples of few automation systems. You can search for their tutorial online by putting them in the 'search words'.

- Instructions + automatic plant watering system + using Arduino (or any microcontroller)
- DIY + automatic obstacle detecting system + using Arduino (or any microcontroller)
- DIY + beginners + automatic fire alarm system + using Arduino (or any microcontroller)
- DIY + automatic + gate opening system
- DIY + automatic + theft detection alarm system
- Instruction + smart fan + (or any microcontroller)

If not exactly, then you can get programme or instructions close to your application. You can take it as a reference and build on it to make programme for your application.

Design any one automatic system given above or any other. Bring it after vacation. It will be displayed at the exhibition.

3) Revise all the work done so far in the book and notebook. Go through the worksheets of lesson 3 in the science exercise book and write down the answers.

4) Do the worksheet in your science register-

SCIENCE REVISION WORKSHEET - CLASS 8

Ch 1: Exploring the Investigative World of Science

Ch 2: The Invisible Living World

A. MCQs

- 1. Science begins with: a) Memorisation b) Curiosity c) Reading d) Writing**
- 2. Investigation in science involves: a) Guessing answers b) Careful observation and experiments c) Only reading books d) Ignoring questions**
- 3. Which is important in experiments? a) Changing many variables b) Changing one variable at a time c) Not recording d) Avoiding repetition**
- 4. The 'root' symbol represents: a) Growth b) Foundation c) Flying ideas d) Curiosity**
- 5. Science helps us to: a) Study theory only b) Solve real-life problems c) Avoid questioning d) Memorise only**
- 6. The basic unit of life is: a) Tissue b) Organ c) Cell d) Organ system**
- 7. Who discovered cells? a) Newton b) Robert Hooke c) Einstein d) Darwin**
- 8. Microorganisms are seen using: a) Telescope b) Microscope c) Binoculars d) Naked eye**
- 9. Which is unicellular? a) Human b) Amoeba c) Tree d) Mushroom**
- 10. Yeast is used in bread because it: a) Produces oxygen b) Produces carbon dioxide c) Absorbs water d) Produces nitrogen**

B. Short Answer Questions

- 11. What is scientific investigation?**
- 12. Why should only one variable be changed in an experiment?**
- 13. Give one example of a scientific question.**

14. Why do microorganisms do not infect the pickles and murabbas?

15. Name the three main parts of a cell.

16. How do microbes act as a source of biogas?

C. Case Based Questions

17. A student studies why puris puff.

a) What method is used?

b) Why change one factor at a time?

18. Plants grow faster in sunlight.

a) Identify observations and suggest an experiment.

19. Onion peel shows rectangular structures.

a) What are they?

b) Why is it closely packed?

20. Dough with yeast becomes fluffy.

a) Which bowl and why?

b) What gas is released?

D. Long Answer Questions

21. Explain how investigation connects observation, questioning and experimentation.

22. Describe the structure of a cell and functions of its parts.

5). Reading and vocabulary enrichment

  Story Time with Science!

Lazy summer afternoons are perfect for reading! Choose an interesting science-based storybook, read it (online/offline), and enjoy discussing it with your family.

Your Task

Read any ONE book from the list below

Discuss the story with your family

- **Write in your science copy.**
- **A short summary of the story**
- **New words you learned**
- **Scientific concepts you discovered**

Book Suggestions-

- **The Thing About Jellyfish – Ali Benjamin Story of a girl trying to understand her friend’s death She explores marine biology (jellyfish, ocean life) through curiosity Mix of emotions + science facts.**
- **Animorphs – K.A. Applegate Kids gain ability to transform into animals using alien technology Introduces ideas of biology, ecosystems, and survival Very engaging, fast-paced science fiction series**
- **Daughter of the Deep – Rick Riordan Adventure inspired by Jules Verne’s science fiction world Includes submarines, ocean science, futuristic technology, Bestseller with a strong mix of science + adventure.**
- **Laika – Nick Abadzis Story of the first dog sent to space (Laika) Combines space science + emotional storytelling Easy to read (graphic novel format)**

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