## Catalogue

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\text { TOY FAIR - } 2021
$$ <br> <br> DIGITAL GAMES 

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## THE INDIA TOY FAIR - 2021

## About Us

Central Institute of Educational Technology (CIET), a constituent unit of NCERT, came into existence in 1984 with the merger of Centre for Educational Technology and Department of Teaching Aids. CIET is a premiere national institute of educational technology. Its major aim is to promote utilization of educational technologies viz. radio, TV, films, satellite communications and cyber media either separately or in combinations. The institute undertakes activities to widen educational opportunities, promote equity and improve quality of educational processes at school level. The institute develops and maintains various online education platforms and repositories that house thousands of eContent based on the National Curriculum Framework and the textbooks of NCERT. CIET-NCERT has developed digital games for curricular learning and gamified assessment of Learning Outcomes. The integration of digital games in teaching learning will not just transform the way students learn in the classroom but will also enhance their learning outcomes. Digital Games is an active area for extensive research both on the technological as well as educational fronts and their potential need to be tapped for realising the learning goals of the 21st Century.

## Gamified Learning

Gamified learning is an educational approach which includes game elements in the learning environment. The main purpose of gamified learning is to motivate students to learn more by enhancing their interest and making the process of learning more enjoyable.

## Digital Games at Different Levels

The digital games are classified as per the new pedagogical and curricular structure envisaged by the New National Education Policy (NEP)-2020 which includes, foundational (age 3-8 years), preparatory (age 8-11 years), middle (age 11-14 years) and secondary (age 14-18 years). There are other categories of games as well such as miscellaneous and 'Heritage games'.

## Available Content

[^0]
## Contents

## I Digital Games for Foundational Level

## Mathematics

| S.No. | Title |
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| 02 | Subtraction |
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| 04 | Matching of numbers to numerals-I |
| 05 | Matching of numbers to numerals-II |
| 06 | Estimation of Length |
| 07 | Counting in groups of tens and ones |
| 08 | Classification |
| 09 | Counting in groups of tens and ones |
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| 14 | घटाव |
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| 17 | लम्बाई का अनुमान |


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| 20 | पैटर्न |
| 21 | एक और दस के समूह में गिनना |
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| 26 | Addition |
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| 28 | Numbers from 10 to 20 |
| 29 | Time |
| 30 | Measurement |
| 31 | Numbers from 21 to 50 |
| 32 | Data handling |
| 33 | Patterns |
| 34 | Numbers from 51 to 100 |
| 35 | Money |
| 36 | Numbers |
| 37 | आकृतियाँ और स्थान |
| 38 | 1 से 9 तक की संख्याएँ |
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| 48 | मुद्रा |
| 49 | संख्याएँ |
| 50 | खिसकना और लुढ़कना |
| 51 | समूह में गिनना |
| 52 | हल्का और भारी |
| 53 | त्रि आयामी (3D) वस्तुओं का द्वि आयामी (2D) निरूपणँ |
| 54 | धारिता का अनुमान और माप़ |
| 55 | संख्या |
| 56 | समय |
| 57 | जोड़ |
| 58 | सीधी और मुड़ी हुई रेखाएँ |
| 59 | जोड़ और घटाव |
| 60 | लम्बाई का अनुमान |
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| 62 | जोड़ का क्रम विनिमेय गुणधर्म |
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| 67 | Data Handling |
| सीधी और टेढ़ी रेखाएँ |  |

## English

| S.No. | Title |
| :--- | :--- |
| 01 | Clap, Clap, Clap |
| 02 | Chhotu |
| 03 | Fruits and Vegetables |
| 04 | Hide and Seek |
| 05 | Colours |
| 06 | Action |
| 07 | Words |
| 08 | Mohan, the potter |
| 09 | My village |
| 10 | Work |
| 11 |  |

Our National Symbols-II

The Festivals of India

Going to the Fair

Colours

## | Digital Games for Preparatory Level

## Environmental Studies

S.No.

Title
गैस सिलेंडर रसीद
आओ नक्शा पढ़े
छोटी सी जीभ पर काम हैं बड़े
किसकी छाप
नृत्य शैली
फूल खिले हैं गुलशन दृगुलशन
परछाई
राजीव गाँधी खेल पुरस्कार
Whose Print
खाएं आम बारह महीने
कहाँ से आया किसने पकाया (भोजन प्रक्रिया)

| 12 | क्या-क्या खाते हम? |
| :---: | :---: |
| 13 | चलें रसोईघर |
| 14 | देश का गौरव |
| 15 | मुहावरों की पहचान |
| 16 | Identify the Occupation |
| 17 | दादी की रसोई से |
| 18 | पहुँचाएं सामान यहाँ से वहाँ |
| 19 | बूँद-बूँद से |
| 20 | सावधानी की सुरक्षा |
| 21 | जन्म प्रमाण पत्र |
| 22 | समय बदल गया |
| 23 | सिलेंडर लो, मगर ध्यान से |
| 24 | झूम खेती |
| 25 | अनीता की मधुमक्खियां -व्यवसाय |
| 26 | हाथी दृ जिग-सॉ पहेली |
| 27 | स्वाद-स्वाद में |
| 28 | पानी पानी पानी |
| 29 | किलोमीटर या मीटर |
| 30 | बढ़े चलो ! |

## Mathematics

| S.No. | Title |
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| 01 | Mirror Half |
| 02 | Place Value(Ones, Tens and Hundreds) |
| 03 | Addition and Subtraction |
| 04 | Measurement of length |
| 05 | Shapes and Designs |
| 06 | Fun with give and take |
| 07 | Heavy and Light |
| 08 | Multiplication as repeated addition |
| 09 | Patterns |
| 10 | Estimation and Measurement of capacity |
| 11 | Relationship between Division and Multiplication |
| 12 | Smart charts |
| 13 | Money |
| 14 | प्रतिबिंब समरूपता |
| 15 | स्थानीय मान |
| 16 | जोड़ और घटाव |
| 17 | लंबाई का माप |
| 18 | आकृतियाँ |
| 19 | लेने देने का खेल |
| 20 | कैलेंडर |


| 21 | बार दृ बार जोड़ कर के गुना करना |
| :---: | :---: |
| 22 | पैटर्न |
| 23 | धारिता का अनुमान और माप |
| 24 | समार्ट चार्ट |
| 25 | रुपए और पैसे |
| 26 | Patterns |
| 27 | How Far? |
| 28 | Tick-Tock |
| 29 | The Way The World Looks |
| 30 | Large Numbers |
| 31 | How many millilitres? - Jugs and Mugs |
| 32 | Patterns |
| 33 | Multiplication |
| 34 | Add and Equate |
| 35 | Area estimation game |
| 36 | Smart Charts |
| 37 | पैटर्न |
| 38 | कितनी दूर |
| 39 | संख्या संक्रियाएं |
| 40 | दुनिया कुछ ऐसी दिखती है |
| 41 | बड़ी संख्याएँ |
| 42 | जग और मग |


| 43 | भिन्न |
| :---: | :---: |
| 44 | पैटर्न |
| 45 | वजन मापना |
| 46 | क्षेत्रफल का अनुमान |
| 47 | समार्ट चार्ट |
| 48 | Dealing with Large Numbers |
| 49 | Using protractor to measure the angles of a figure |
| 50 | Area |
| 51 | Fractions |
| 52 | Rotational Symmetry |
| 53 | Relationship between Division and Multiplication |
| 54 | Map Reading |
| 55 | Observing shapes from different perspective |
| 56 | Tenths \& Hundredths |
| 57 | Spaces of Leaves |
| 58 | Smart Charts |
| 59 | Factors and Multiples |
| 60 | How Big? How Heavy |
| 61 | बड़ी संख्याएँ |
| 62 | आकृतियाँ और कोण |
| 63 | क्षेत्रफल |
| 64 | भिन्न |


| 65 | घूर्णी समरूपता |
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| 67 | नक्शा पढ़ना |
| 68 | आकृतियों को अलग-अलग परिप्रेक्ष्य से देखना |
| 69 | दसवाँ और सौवां भाग |
| 70 | क्षेत्रफल और घेरा |
| 71 | स्मार्ट चार्ट |
| 72 | गुणा और भाग के तरीके |
| 73 | धारिता |

## English

| S.No. | Title |
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| 01 | मीठी सारंगी |
| 02 | गतिविधि: 1 |
| 03 | गतिविधि: 2 |
| 04 | गतिविधि: 3 |
| 05 | पत्ते ही पत्ते |
| 06 | गतिविधि 3: ध्वनियों को सही चित्र के साथ मिलाओ। |
| 07 | गतिविधि 3: कहानी |

## I Digital Games for Middle Level

| History |  |
| :---: | :---: |
| S.No. | Title |
| 01 | Qawwal |
| 02 | Palm Leaf Manuscripts - Art of Writing And Preserving our Heritage |
| 03 | Zafar Mahal-The Last Monumental Structure Of The Mughals |
| 04 | Vital villages Thriving Towns |
| 05 | Traders, Kings and Pilgrims |
| 06 | Tribes, Nomads and settled communities |
| 07 | Timeline of the Coming Of The Europeans To The Revolt Of 1857 |
| 08 | Our Clues to the Past |
| 09 | Status of Women in India(Pre-Independence Period) |
| 10 | Timeline of Governor Generals in British India- From 1773-1857 |
| 11 | Emergence of New States after the Decline of Mughals |
| 12 | Colonial Education and National Education |
| 13 | Causes of the Revolt of 1857 |
| 14 | Coins as Sources of study |
| 15 | An Activity for Chapter I-Meaning of Terms |
| 16 | Kunwar Singh and Nahar Singh : Unsung heroes of 1857 |
| 17 | The Sufi culture in India |
| 18 | Rebellion After 1857 |

KATHAK- Origin and development

KATHAK- Origin and development
History (Our Pasts)
Developments in Science and Mathematics in Ancient India
Paintings as Sources of Study of The British Period

In the Earliest Cities

Sufism- Concept and four main Sufi Silsilahs
Indian trade and origin of words
Rise of Mahajanapadas
Bhakti Movement in Medieval India (Mind Map)
The Past Through The Eyes Of Chinese Travellers: The Account of Xuanzang
Discovery of Arikamedu - An Ancient port Town of India
Categories of Towns in Medieval India
Ahoms

SAVITRIBAI PHULE : A Life that continues to inspire
The Sufi culture in India

Devotional Paths to the Divine- Symbolism in Sufi Whirling During the Sama

The Four Varnas

Vital Villages and Thriving Towns (Mathura and Arikamedu around 2500 years ago)

The Delhi Sultans- Main Rulers of Delhi (Early 12th century to Early 16th century)- A Timeline

Ruling the Countryside-3 (True \& False / Say Yes or No)

Rigveda
New Empires and Kingdoms
Rigveda
New Empires and kingdoms
Kingdoms,Kings and An Early republic
How, When and Where
Categories of Towns in Medieval India
Sufism- Concept and four main Sufi Silsilahs

In the Earliest Cities

History and their Sources
Tracing changes Through a Thousand Years
Planning for Development
Status of Women in India(Pre-Independence Period)
Ahoms
Our Clues to the Past

Coins as Sources of study
An Activity for Chapter I - Meaning of Terms

## Geography

S.No.

## Title

Interior of the Earth

| 02 | Work of wind (Mushroom Rock) |
| :---: | :---: |
| 03 | Work of Ice (Glacial Moraines) |
| 04 | Mountain Range |
| 05 | Disaster Management - Earthquake |
| 06 | Land, Soil, Water, Natural Vegetation |
| 07 | Open Cast Mining |
| 08 | Shaft Mining |
| 09 | Research Station in Antarctica - Maitri |
| 10 | Our Country: India |
| 11 | Wind Energy |
| 12 | Research Station in Antarctica - Bharati |
| 13 | Breaking up of Rocks |
| 14 | Basin |
| 15 | Sea Arch |
| 16 | Hemispheres |
| 17 | Major Landforms |
| 18 | Disaster Management - Flood |
| 19 | Disaster Management - Landslide |
| 20 | Sea Stack |
| 21 | Tundra vegetation |
| 22 | Ocean's depth |
| 23 | Tides |

Full moon and New moon

River
Life in Cold Deserts

Sericulture

Flora and Fauna

The Cold Desert of Ladakh
Our Country: India
Our Country-India

Volcano

Work of River

## Mathematics

S.No.

01
Properties of Triangles
02
Fill in the missing words

03
Understanding Polygons

Understanding place value

Exchange the digits

Understanding Geometrical Shapes

Fill in the missing words: Circles

Name a polygon

Missing words : Lines and Angles

Types of polygons

Missing words : Integers

Missing words : Geometry

Lines of symmetry
Fill in the missing words : Algebra

Rational numbers

Rational numbers II

Knowing our Numbers: Roman numerals

Knowing our Numbers : Estimation

Indian and International system of numeration

Knowing our Numbers: Place value

Comparing Numbers
Prime numbers

Common Factors

Visualising solid shapes

Fill the blanks: solid shapes

| 26 | Solid shapes: 2D and 3D |
| :---: | :---: |
| 27 | 2D and 3D Shapes |
| 28 | Rational Numbers |
| 29 | Rational Numbers II |
| 30 | Rational Numbers III |
| 31 | Comparing Quantities |
| 32 | Data Handling I |
| 33 | Data Handling II |
| 34 | Data Handling III |
| 35 | Data Handling IV |
| 36 | Data Handling V |
| 37 | Practical Geometry |
| 38 | Practical Geometry II |
| 39 | Practical Geometry III |
| 40 | Decimals |
| 41 | Decimals II |
| 42 | Decimals III |
| 43 | Playing with Numbers |
| 44 | Knowing our numbers |
| 45 | Knowing our numbers II |
| 46 | Knowing our numbers III |

## English

| S.No. | Title |
| :---: | :---: |
| 01 | Three Questions |
| 02 | The Squirrel |
| 03 | A Gift of Chappals |
| 04 | The Rebel |
| 05 | Gopal and the Hilsa Fish |
| 06 | The Shed |
| 07 | The Ashes That Made Trees Bloom |
| 08 | Chivvy |
| 09 | Quality |
| 10 | Trees |
| 11 | Expert Detective |
| 12 | Mystery of the Talking Fan |
| 13 | Dad and the Cat and the Tree |
| 14 | The Invention of Vita-Wonk |
| 15 | Meadow Surprises |
| 16 | Fire: Friend and Foe |
| 17 | A Bicycle in Good Repair |
| 18 | Garden snake |
| 19 | The Story of Cricket |

## Science

S.No.

Title
Vector \& Disease

Diagram of a Leaf
Material Soluble or Insoluble in Water

Human Digestive System
Vaccine

06
Discovery of Penicillin

## I Digital Games for Secondary Level

## Biology

S.No.

01
Vectors in rDNA technology

02
Agarose Gel Electrophoresis

Gametogenesis (Spermatogenesis)
Label the parts of a flower

Deoxyribonucleic Acid (DNA)
06
Hormonal Regulation of Male Reproductive System
07
Identification of sites on Plasmid DNA

08
Human Reproduction- Testis

Human Reproduction- Oogenesis
Human Reproduction- Mammary Gland
Glossary
Female Reproductive Systema
Types of Placentation in Plants
Issues in PCR and discovery of TAQ Polymerase
Microspore Mother Cell
Chemical Bonding and Molecular Structure
(Single Choice Correct Questions)
Separating Transformants from Non-transformants
i.e.Recombinants from non-recombinants

Restriction Enzymes
Artificial Plasmid/Cloning vector
Male Reproductive System- an overview
Isolation of DNA from green peas in the classroom/ laboratary
Sectional View of Seminiferous Tubules
Simple Stirred Tank Bioreactor
A diagrammatic representation of mature Embryo Sac
A diagrammatic view of a typical anatropous ovule
A diagrammatic view of Mammary gland in Humans
Recombinant DNA Technology
Parts of a leaf
Human Digestive System

A quiz on'Endocrine glands \& Hormones'
Quiz on'Plant Tissues-l'
Quiz on 'Respiration'
Quiz on 'Excretory System'
Quiz on 'Heterotrophic Nutrition'
Quiz on ‘Cellular Respiration'
Quiz on 'Heart'
Quiz on 'Human Digestive System'
Quiz on Plant Tissues-II

Quiz on 'Connective Tissue'
Quiz on 'Epithelial Tissue'
Quiz on 'Muscular Tissue'
Quiz on 'Tissues-II'
Quiz on 'Sexual Reproduction in Plants'
Quiz on 'Reproduction in Single Celled Organisms'
Importance of Variation
Parts of a Dicot Seed
Vegetative Propagation in Potato
Label the Parts of a Dicot Seed
Biogeochemical Cycles \& Ozone Layer
Air, Water \& Soil

## Chemistry

S.No.

Title
01
Thermodynamics

02
A quiz on States of Matter
A quiz on 'Reactivity \& Extraction of Metals'

04
Quiz on 'Physical \& Chemical Changes'

Quiz on 'Mixture \& Separation of Components'

## Physics

## S.No.

01
States of Matter (Multiple Choice Questions)

02
Environmental Chemistry- Multiple Choice Questions

03
States of Matter

04
Digital Electronics

05
Semiconductors

06
Self-Assessment Questions on SI units

07
Pendulum Lab

08
Self-Assessment Questions on Work, Energy \& Power

09
Transistor

10

11
Rutherford Scattering

Hooke's Law

Faraday's Law

Colour Vision

Circuit Construction Kit

Capacitor Lab: Basics

Current Electricity

Ohm's Law

Nuclei

Gravity \& Orbits

Magnetism \& Matter
Build an Atom

Bending Light

Gravity \& Orbits

Quiz on'Work \& Energy'

Quiz on 'Work \& Energy-l'

Quiz on Work

Quiz on'Sound Production \& Propagation'

Quiz on 'Sound Production \& Propagation-III'
Quiz on ‘Sound Production \& Propagation-II'

Quiz on 'Sound Production \& Propagation-I'

Quiz on'Sound-II'

Quiz on 'Sound-I'

## English

Evelyn Glennie: Deborah Cowley, Evelyn Glennie Listens

The Sound of Music Part - 2 Bismillah Khan
The Shehnai of Bismillah Khan
S.No.

01
Title
The Fun They Had
to Sound without Hearing it

04

05

06

07
08
09
10

11

12

13

14

15
02

03

04

| 16 | His First Flight |
| :--- | :--- |
| 17 | Black Aeroplane |
| 18 | From the Diary of Anne Frank |
| 19 | The Hundred Dresses - I |
| 20 | Baker from Goa |
| 21 | Coorg |
| 22 | Tea from Assam |
| 23 | Mijbil the Otter |
| 25 | Madam Rides the Bus - II |
| 26 | The Sermon at Benares |
| 27 | The Proposal |
| 24 |  |

## Mathematics

S.No.

01
Title
Factors That Influence Attitude Formation

## History

## S.No.

Inventions of the Industrial Revolution
US Vietnam War

Drainage/Flood Plain
Drainage/Breaded System
Drainage/Delta
Drainage/Trellis pattern

Drainage/ Dendritic pattern
Title
Industrialisation and Collectivisation in USSR

The Rowlatt Satyagraha
Through the Eyes of Travellers: Perceptions of Society
Print Culture and The Modern World

Phan Boi Chau

Russia and the World War I

Industrial revolution

Through the Eyes of Travellers: Perceptions of Society
Exploring the Mahanavami Dibba
Through the Eyes of Travellers: Perceptions of Society

Town Planning in Harappa
Timeline of Development Mansabdari System

Layout of the Houses in Harappa
Kinship , Caste and Class
Understanding Seals And Their Importance In Harappa
Womens 'Voices in the Making of the Constitution

Town planning in Harappa
Impact of Partition of India

Town Planning in Harappa

## Geography

## S.No.

Drainage/Perennial/Non-perennial Rivers
Drainage/Meanders
Drainage/Radial Pattern
Plate Tectonics
Drainage/Flood Plain
Drainage/Breaded System
Drainage/Delta
Title
The Himalyan Mountain

Drainage/Trellis pattern
The Himalyan Mountain

## Accountancy

S.No.

GAAP

## Economics

S.No.

Title
आय का चक्रीय प्रवाह

National Income

Theory of demand

Government Budget
Receipts and Expenditures

Production possibility curve and opportunity cost

07

Methods of measuring National Income
Presentation of data
पूर्ति की कीमत लोच
Outsourcing
Normal Distribution

National Income

National Income and Related Aggregates
Multilateral and Bilateral Trade
Money Supply
Measures of central Tendency -Mode
Medium of Exchange
Measures of central Tendency -Medium
Limitations of using per capita Gross Domestic Product (GDP) as a measure of welfare/Development

Inflation

Indian Economy on the Eve of Independence
Human Development Index
Graphs, curve and slope
Goods and services Tax
Global Warming
India's Five Year Plans

Demand

Elasticity of Supply

Elasticity of demand

Understanding different rates under monetary policy of India

Determinants of Supply by a Firm

Impact of Demonetisation in India

Demand for Money

Credit Creation by Commercial Banks

Indifference Curve

Circular Flow of income

Central Bank

Causes of Inflation

Lorenz Curve

Mean Deviation, Standard Deviation

Range, Quartile Deviation

Collection of Data

Spearman's Rank Correlation

Karl Pearson's Coefficient of Correlation

Scatter Diagram
Mode

Median

Quartiles and Percentiles

Arithmetic Mean

| 50 | Presentation of Data-I |
| :--- | :--- |
| 51 | Presentation of Data-II |
| 52 | Organisation of Data II |
| 53 | What is Economics |

## |e-Books

| Accessible e-Comic Book |  |
| :--- | :--- |
| S.No. | Title |
| 01 | Priya Accessible Warrior |
| 02 | प्रिया सुगम्यता योद्धा |
| 03 | ईंधन और पर्यावरण संरक्षण |
| S.No. | Interactive e-Comic Book |
| 01 | Title |

## \| Heritage Content

|  | Virtual Tour |
| :--- | :--- |
| S.No. | Title |
| 01 | Tour of The Great Buddha Statue |
| 02 | Tomb of Ghiyasuddin Tughlaq |
| S.No. | Khol Khel |
| 01 | Title |
| 02 | Buddhi Yoga |



Let's explore the world of Gamified Learning
https://iffdigitalgames.ncert.org.in/


Central Institute of Educational Technology
National Council of Educational Research and Training
Sri Aurobindo Marg, New Delhi - 110016
www.ciet.nic.in, www.ncert.nic.in


[^0]:    - Interactive Games
    - Accessible E-Comic Books
    - Interactive E-Books
    - Heritage Games

