

कार्यकलाप प्रतिवेदन

Activity Report

2020-2021



National Science Centre, Delhi



Ministry of Culture
Government of India



With Best Wishes

कार्यकलाप प्रतिवेदन Activity Report

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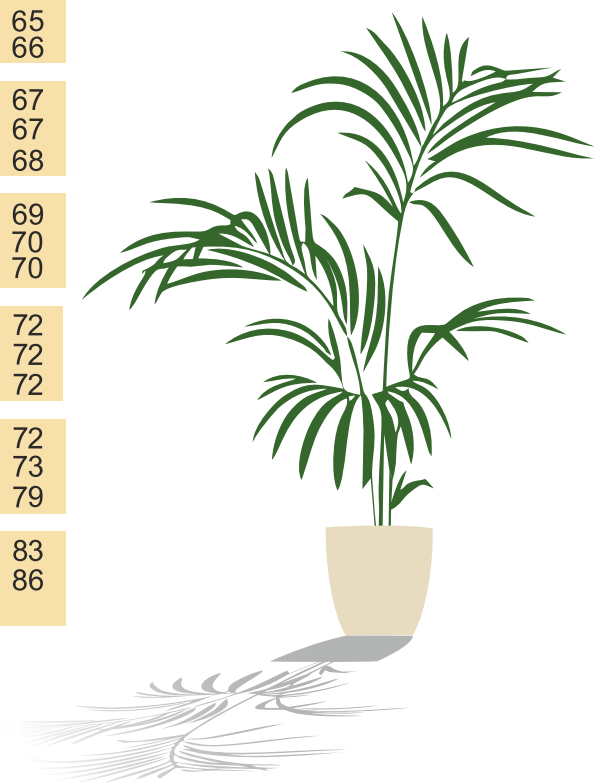
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2020 2021

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मुझे इस वर्ष की गतिविधि रिपोर्ट, जो मेरे कार्यकाल में दसवीं है और ऑनलाइन –ऑफलाइन साधनों का प्रयोग कर किए गए कार्यकलापों से भरी है, प्रस्तुत करते हुए अत्यधिक प्रसन्नता का अनुभव हो रहा है। जैसा कि सभी को मालूम है कि देश कोविड-19 महामारी के कारण एक चुनौतीपूर्ण स्थिति का सामना कर रहा है और भारत सरकार के निर्देशों के अनुसार, विज्ञान केन्द्र 24 मार्च, 2020 से दर्शकों के लिए बंद कर दिए गए थे। केन्द्र 10 नवंबर, 2020 को फिर से खोला गया। महामारी के दौरान लॉकडाउन की अवधि के बावजूद, राष्ट्रीय विज्ञान केन्द्र, दिल्ली, आंचलिक विज्ञान नगरी, लखनऊ और कुरुक्षेत्र पैनोरमा और विज्ञान केन्द्र, कुरुक्षेत्र की पूरी टीम ने ऑनलाइन कार्यक्रमों, सोशल मीडिया आदि के माध्यम से दर्शकों तक पहुंचने के लिए प्रयास किए। राष्ट्रीय विज्ञान केन्द्र, दिल्ली ने 73,609 दर्शकों तक पहुंच बनाई। इसी तरह, आंचलिक विज्ञान नगरी, लखनऊ में इस अवधि के दौरान 73,710 आगंतुक आए। कुरुक्षेत्र पैनोरमा एवं विज्ञान केन्द्र में 1,12,618 दर्शकों ने भ्रमण किया। मुझे यह बताते हुए खुशी हो रही है कि वर्तमान महामारी की स्थिति के बावजूद, इस समयावधि में उत्तरी क्षेत्र ने ढाई लाख से अधिक दर्शकों तक अपनी पहुंच बनाई।

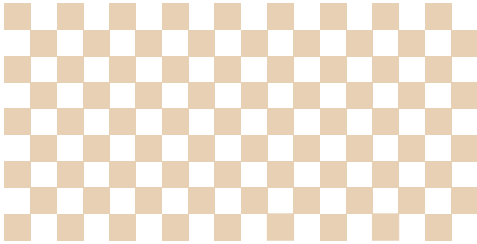
From

Director's Desk

It gives me a great pleasure in presenting this year's activity report – the tenth in a row in my tenure – which was full of activities and achievements using online & offline mode. As aware, the Country has been facing a challenging situation due to COVID-19 pandemic and as per the directions of the Government of India, the science centres were closed for public since March 24, 2020. The Centre reopened on November 10, 2020. Despite of the lockdown period during pandemic, the entire team of National Science Centre, Delhi, Regional Science City, Lucknow and Kurukshetra Panorama & Science Centre, Kurukshetra worked relentlessly to reach out to visitors through online programs, social media handles etc. National Science Centre, Delhi garnered an overall footfall of **73,609**. Similarly, the Regional Science City, Lucknow recorded the annual visitors of **73,710** during this period. Kurukshetra Panorama & Science Centre received **1,12,618** visitors. I am delighted to inform that, despite the present scanario, in all, the North Zone has surpassed **two and a half lakh** reachout during this year.



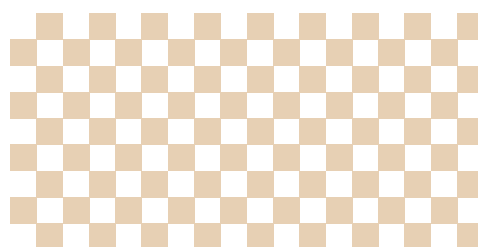
RSC Ambala site



रा.वि.के., दिल्ली उत्तर भारत क्षेत्र में नए विज्ञान केन्द्रों और सुविधाओं की स्थापना के साथ-साथ पूरे वर्ष नियमित रूप से गुणवत्तापूर्ण शैक्षिक कार्यक्रम आयोजित करने में व्यस्त रहा। उप-क्षेत्रीय विज्ञान केन्द्र, पालमपुर की स्थापना का कार्य पूर्ण कर लिया गया है। इस प्रोजेक्ट का शीघ्र उद्घाटन होने की संभावना है। अल्मोड़ा, उत्तराखंड में उप-क्षेत्रीय विज्ञान केन्द्र की स्थापना कार्य प्रगति पर है। नींव का काम पूरा हो गया है और भवन की संरचना का काम 100% पूरा हो गया है। अन्य संबंधित सिविल कार्य पूर्ण होने के कगार पर हैं। लगभग 2500 वर्गमीटर क्षेत्र में विज्ञान पार्क निर्माण योजना पर काम चल रहा है। इस केंद्र के लिए जलवायु परिवर्तन पर एक प्रदर्शनी के लिए संकल्पना दस्तावेज का विकास किया जा रहा है। इस परियोजना के दिसंबर 2021 तक पूरा होने की संभावना है। अंबाला, हरियाणा में उप-क्षेत्रीय विज्ञान केंद्र जिसका नाम आर्यभट्ट विज्ञान केंद्र, अंबाला रखा गया है, के निर्माण का कार्य रा.वि.स.प., एच.एस.सी.एस.आई.टी. और लोक निर्माण विभाग के बीच हस्ताक्षरित समझौता ज्ञापन के अनुसार किया जा रहा है। लोक निर्माण विभाग (बी एंड आर), हरियाणा सरकार द्वारा निर्माण कार्य प्रगति पर है। नींव की भराई का काम 90% पूरा हो गया है। प्रदर्शनी दीर्घाओं और अन्य सुविधाओं की योजना पर कार्य चल रहा है। माननीय विज्ञान एवं प्रौद्योगिकी मंत्री, हरियाणा सरकार के समक्ष अतिरिक्त सुविधाओं की योजना का प्रस्तुतीकरण 17 फरवरी, 2021 को किया गया। योजना पर संतोष व्यक्त करते हुए, माननीय मंत्री ने 31 मार्च, 2022 तक पहले चरण को पूरा करने की इच्छा व्यक्त की। मनोरंजन विज्ञान प्रदर्शनी का निर्माण और अन्य कार्यों को किया जा रहा है। एच.एस.सी.एस.आई.टी. ने तीन अतिरिक्त सुविधाओं की स्थापना के लिए रा.वि.स.प. को अतिरिक्त धनराशि स्वीकृत की है, जो समझौता ज्ञापन में उल्लेखित बजट के अतिरिक्त हैं। रा.वि.स.प. (मुख्यालय) से प्राप्त परामर्श पर रा.वि.के., दिल्ली के अधिकारियों की एक टीम ने विज्ञान नगरी, गुरुग्राम की स्थापना के लिए उपयुक्त स्थान की पहचान करने के लिए गुरुग्राम में विभिन्न जगहों का भ्रमण किया। टीम ने प्रस्तावित स्थल पर परियोजना की व्यवहार्यता का पता लगाया। एक विस्तृत रिपोर्ट महानिदेशक, रा.वि.स.प. को सौंप दी गई है। रा.वि.के., दिल्ली में प्रागैतिहासिक जीवन दीर्घा का नवीनीकरण कार्य पूरा कर लिया गया है।



NSC, Delhi was very much engaged in setting up new science centres and facilities in the north zone as well as regularly organised quality educational programmes throughout the year. Setting up work of **Sub-Regional Science Centre, Palampur** has been completed. The project is likely to be inaugurated soon. Setting up of **Sub-Regional Science Centre at Almora, Uttarakhand** is progressing well. The foundation work is completed and structure work of building is 100% completed. Other related civil works are on the verge of completion. The planning of Science Park is underway which will cover about 2500 sqm. area. Concept document for an exhibition on Climate Changes is under development for this centre. The project is likely to be completed by December 2021. Setting up of **Sub-Regional Science Centre at Ambala, Haryana**, named as **Aryabhatta Vigyan Kendra, Ambala** has been taken up as per Memorandum of Agreement (MoA) signed among NCSM, HSCSIT and PWD (B&R). The construction work by PWD (B&R) Govt. of Haryana is under progress. Piling work for foundation is 90% completed. Planning for exhibition galleries and other facilities is underway. A presentation of plan of additional facilities was made before the Hon'ble Minister of Science & Technology, Govt. of Haryana on February 17, 2021. While expressing satisfaction over plan, the Hon'ble Minister desired completion of first phase by March 31, 2022. The fabrication of Fun Science exhibits and other elements are being taken-up. The HSCSIT has also approved and sanctioned additional funds to NCSM for setting up of 3 additional facilities, which are not part of the SPOCS scheme of MoC. A team of officials from NSC, Delhi visited various sites in Gurugram for identifying space for setting-up of a **Science City, Gurugram** as per advisory received from NCSM (Hqrs.). The team explored the feasibility of the project at the proposed site. A detailed report has been submitted to DG, NCSM. Renovation of **Pre-historic Life gallery** at NSC, Delhi has been completed.



भारत निर्वाचन आयोग ने केन्द्र को सूचित किया कि “निर्वाचन और लोकतंत्र संग्रहालय” परियोजना को प्रस्तावित स्थल आई.आई.आई.डी.ई.एम. द्वारका, से स्थान्तरित कर उनके नए प्रस्तावित स्थल सेक्टर-9, द्वारका, नई दिल्ली (भारत वंदना पार्क के पास) पर कार्यान्वित किया जाएगा। उन्होंने संशोधित समझौता ज्ञापन के साथ मौजूदा परियोजना में आवश्यक संशोधन की इच्छा व्यक्त की और तदनुसार एक नया प्रस्ताव प्रस्तुति के लिए कहा। संशोधित प्रस्ताव तैयार कर लिया गया है और प्रस्तुति के लिए चुनाव आयोग से समय मांगा गया है।

रा.वि.स.प. को हिमाचल प्रदेश विज्ञान प्रौद्योगिकी और पर्यावरण परिषद (हिमकोस्ट), शिमला से विज्ञान शिक्षण और रचनात्मक केन्द्र, शिमला, हिमाचल प्रदेश की स्थापना के लिए प्रदर्शनियों और सुविधाओं के रूप में सहायता प्रदान करने का अनुरोध प्राप्त हुआ। रा.वि.के., दिल्ली ने, रा.वि.स.प. की ओर से प्रदर्शनियों का निर्माण और इनकी स्थापना का काम पूरा किया।

हिमकोस्ट ने रा.वि.स.प. से 50 सीटों वाले डिजिटल तारामंडल की स्थापना करने का भी अनुरोध किया। रा.वि.स.प. की ओर से रा.वि.के., दिल्ली द्वारा उन्हें इस उद्देश्य के लिए व्यय का अनुमान प्रदान कर दिया गया है, जिसे उनके द्वारा सैद्धांतिक रूप से अनुमोदित किया गया है। इसके बाद, उन्होंने एक समझौता ज्ञापन के प्रारूप लिए अनुरोध किया। समझौता ज्ञापन के प्रारूप को प्रस्ताव के साथ उन्हें भेज दिया गया है। इस संबंध में हिमकोस्ट की प्रतिक्रिया की प्रतीक्षा है।

ECI informed that **Election and Democracy Museum** project will be implemented at their newly proposed venue in Sector-9, Dwarka, New Delhi (near Bharat Vandana Park) and not at earlier proposed venue in IIIDEM Dwarka. They desired necessary modification of the existing project with amended MoU and asked for a fresh proposal and presentation accordingly. Revised proposal has been prepared and time is sought from ECI for presentation.

HIMCOSTE also requested NCSM to take up the setting up of a 50-Seater **Digital Planetarium**. NSC, Delhi, on behalf of NCSM, had provided them the estimate of expenditure for this purpose, which was approved in principle by them. Subsequently, they have requested for a draft MoU and the same was sent to them along with proposal. The response from HIMCOSTE is awaited

NCSM received a request from **Himachal Pradesh Council for Science Technology and Environment** (HIMCOSTE), Shimla for providing help in form of exhibits and facilities for setting up of Science Learning & Creative Centre, Shimla, H.P. NSC, Delhi, on behalf of NCSM, completed the fabrication of hands-on exhibits and its installation at site.



NSC, Delhi is developing Science Learning & Creative Centre, Shimla, for Himachal Pradesh Council for Science Technology and Environment.



रा.वि.के., दिल्ली में माशव (MASHAV), इज़राइल के दूतावास के सहयोग द्वारा हर्बल गार्डन हेतु ड्रिप सिंचाई प्रणाली 18 मार्च, 2021 को स्थापित की। नई सुविधा का उद्घाटन इज़राइल दूतावास के उप-प्रमुख सुश्री रोनी येडिडिया क्लेन द्वारा किया गया। इस अवसर पर, श्री डैन अल्लुफ, काउंसलर माशव (कृषि) सहित इज़राइली दूतावास का एक प्रतिनिधिमंडल; सुश्री ओरली गोल्डस्मिट, प्रमुख, सार्वजनिक कूटनीति; श्री मुहम्मद हेब, प्रवक्ता और श्री डोरन गिडोनी, माशव उपस्थित थे।

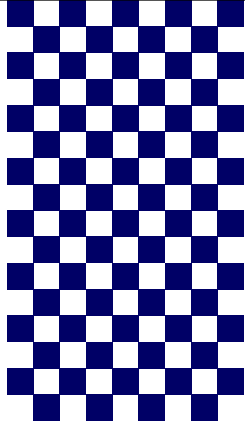
रा.वि.के., दिल्ली ने रा.वि.स.प. की ओर से, संस्कृति मंत्रालय, भारत सरकार की आभासी वास्तविकता और संवर्धित वास्तविकता परियोजना 'धरोहर' परियोजना' को लागू करने हेतु भारतीय पुरातत्व सर्वेक्षण के साथ समझौता ज्ञापन पर हस्ताक्षर किए। इस प्रोजेक्ट को लेने हेतु अनुरोध प्रस्ताव का मसौदा (आर.एफ.पी.) भारतीय पुरातत्व सर्वेक्षण को भेजा गया है।

रा.वि.के., दिल्ली को संस्कृति मंत्रालय द्वारा इलाहाबाद संग्रहालय, (प्रयागराज, यूपी) में चंद्रशेखर आजाद दीर्घा की स्थापना का उत्तरदायित्व दिया गया। उत्तर प्रदेश के नए राज्यपाल के समक्ष संकल्पना डिजाइन प्रस्तुत किए गए। लेकिन आवंटित स्थान छोटा होने के कारण संकल्पना डिजाइन को संशोधित किया जाएगा और उसके बाद परियोजना को शुरू किया जाएगा। रा.वि.स.प की ओर से, रा.वि.के. दिल्ली ने राष्ट्रीय संग्रहालय में प्रदर्शनी स्थलों और सुविधाओं के नवीनीकरण और विकास के लिए राष्ट्रीय संग्रहालय और केन्द्रीय लोक कल्याण विभाग के साथ एक त्रिपक्षीय समझौते पर हस्ताक्षर किए। यह पर्यटन मंत्रालय द्वारा वित्त पोषित परियोजना है जिसे रा.वि.स.प द्वारा क्रियान्वित किया जा रहा है। इस परियोजना के लिए ऑनसाइट संबंधित कार्य और समन्वय रा.वि.के., दिल्ली द्वारा किया जा रहा है।

NSC, Delhi with support from **MASHAV, Embassy of Israel** installed **Drip Irrigation System** on March 18, 2021 at its **Herbal Garden**. The new facility was inaugurated by Ms. Rony Yedidia Clein, Deputy Chief of Mission, Embassy of Israel. On the occasion, a delegation from Embassy of Israel including Mr. Dan Alluf, Counsellor Mashav (Agriculture); Ms. Orly Goldschmidt, Head of Public Diplomacy; Mr. Muhammad Heib, Spokesperson and Mr. Doron Gidony, Mashav was present.

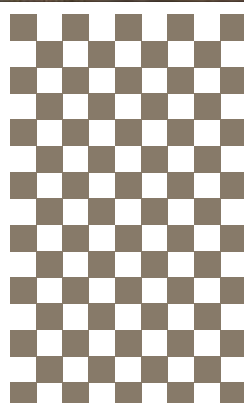
NSC, Delhi, on behalf of NCSM, has signed MoU with ASI for implementing The **Virtual Reality and Augmented Reality** project of MoC under '**Dharohar**' project of GoI. A draft RFP has been prepared and sent to ASI for taking up the work.

NSC, Delhi was given the responsibility of setting up of **Chandrasekhar Azad Gallery** in the Allahabad Museum, (Prayagraj, UP) by Ministry of Culture. The concept designs were prepared and presented to the new Governor, UP. But now the area of the site allotted is small, the concept design will be revised and the project will be taken up thereafter. On behalf of NCSM, NSC Delhi has signed a tripartite agreement with **National Museum and CPWD** for renovation and major development of exhibition spaces and facilities at National Museum. This is a Tourism Ministry funded project being executed by NCSM. Onsite related works and coordination for this project is being done by NSC, Delhi.



रा.वि.के., दिल्ली ने 26 से 29 मई, 2020 तक 'ऐप डेवलपमेंट' पर ऑनलाइन कार्यशाला का आयोजन किया। 1 से 5 जून, 2020 तक 'आर्टिफिशियल इंटेलिजेंस' पर ई-वर्कशॉप का आयोजन किया गया। 'गेमिंग फॉर एजुकेशन' पर एक ऑनलाइन कार्यशाला का भी आयोजन किया गया। जिसमें 104 शिक्षकों ने भाग लिया और शिक्षा में गेमिंग प्लेटफॉर्म का उपयोग करना सीखा। 22 से 26 जून, 2020 तक कृत्रिम बुद्धिमत्ता (एडवांस लेवल) पर एक और ई-कार्यशाला का आयोजन किया गया। 'इलेक्ट्रॉनिक्स एंड आई.ओ.टी. (इंटरनेट ऑफ थिंग्स) पर एक ऑनलाइन कार्यशाला 8-9 अगस्त और 22-23 अगस्त, 2020 को आयोजित की गई। नवप्रवर्तक केन्द्र के सदस्यों के लिए उपकरण संचालन कार्यशाला का आयोजन 30 और 31 दिसंबर, 2020 को किया गया। कार्यशाला का उद्देश्य सदस्यों को विभिन्न यान्त्रिकी, विद्युत और इलेक्ट्रॉनिक्स साधनों के संचालन से परिचित कराना था।

NSC, Delhi organised online workshop on 'App development' from May 26 to 29, 2020. E-Workshop on 'Artificial Intelligence' was organised from June 1 to 5, 2020. An online orientation workshop on 'Gaming for Education' was also organised in which 104 teachers participated and learnt how to use gaming platforms for education. Another E-Workshop on Artificial Intelligence (Advance Level) was organised from June 22 to 26, 2020. An online workshop on 'Electronics & IoT (Internet of Things)' was organised on 8th - 9th August and August 22 & 23, 2020. Tool Operation Workshop for Innovation Space members was organised on December 30 & 31, 2020. The objective of the workshop was to acquaint the members with the operation of different mechanical, electrical and electronics tools.





संकल्प पर्व-2020 के दौरान 6 से 9 जुलाई, 2020 तक वृक्षारोपण अभियान शुरू किया गया और रा.वि.के., दिल्ली के परिसर में पीपल, आंवला, बरगद और अशोक के पौधे लगाए गए। इसके अलावा, इस अवधि के दौरान ऑनलाइन चित्रकला प्रतियोगिता, वाद-विवाद प्रतियोगिता, परस्पर संवादात्मक ऑनलाइन सत्र और प्रश्नोत्तरी का आयोजन किया गया। कार्यक्रम में बड़ी संख्या में विद्यार्थियों ने भाग लिया। केन्द्र ने 6 अक्टूबर, 2020 को 'वन्यजीवों में वर्गीकरण' पर ऑनलाइन कार्यशाला और अगले दिन एक ऑनलाइन प्रश्नोत्तरी का आयोजन किया। कार्यशाला के दौरान छात्रों ने विभिन्न प्रजातियों के वर्गीकरण और क्रम-विकास के कारण उन पर पड़े प्रभावों के बारे में सीखा।

रा.वि.के., दिल्ली ने 11 मई, 2020 को 'मानव जाति के एक खुशहाल और सुरक्षित भविष्य के लिए विज्ञान और प्रौद्योगिकी' पर एक लोकप्रियवार्ता का आयोजन किया। एमिटी विश्वविद्यालय के कुलपति प्रो. पी.बी. शर्मा ने 11 मई, 2020 को व्याख्यान दिया, जिसे फेसबुक और यूट्यूब पर लाइव दिखाया गया।

डॉ. मिताली मुखर्जी, मुख्य वैज्ञानिक, सी.एस.आई.आर.-आई.जी.आई.बी. और शांतिस्वरूप भटनागर पुरस्कार विजेता द्वारा 'जीनोम- मनोरंजन की यात्रा' विषय पर एक लोकप्रिय व्याख्यान 24 सितंबर, 2020 को रा.वि.के., दिल्ली द्वारा यूट्यूब चैनल पर लाइव स्ट्रीम किया गया।

विश्व विज्ञान दिवस के अवसर पर 10 नवंबर, 2020 को डॉ. के.एस. राव, प्रोफेसर और प्रमुख, वनस्पति विज्ञान विभाग, दिल्ली विश्वविद्यालय द्वारा 'पौधे स्वास्थ्य और सामाजिक भलाई' विषय पर एक लोकप्रिय विज्ञान व्याख्यान आयोजित किया गया। इस व्याख्यान को यूट्यूब चैनल पर प्रसारित किया गया और बड़ी संख्या में दर्शक कार्यक्रम में ऑनलाइन जुड़े।

18 मई, 2020 को अंतर्राष्ट्रीय संग्रहालय दिवस मनाने हेतु 'समानता के लिए संग्रहालय: विविधता और समावेश' विषय पर पैनल चर्चा का आयोजन किया गया। इस पैनल चर्चा में संग्रहालय समूह, वाशिंगटन डी.सी., यू.एस.ए.; नेहरू स्मारक संग्रहालय और पुस्तकालय, दिल्ली; राष्ट्रीय संग्रहालय, नई दिल्ली; विज्ञान संग्रहालय, लंदन, यू.के. और राष्ट्रीय विज्ञान केन्द्र (रा.वि.स.प.), नई दिल्ली से विशेषज्ञों ने भाग लिया।

During **Sankalp Parva-2020** from July 6 to 9, 2020, a plantation drive was initiated and saplings of Peepal, Amla and Ashok trees were planted at the premises of NSCD. In addition, online sit & draw contest, debate contest, interactive online sessions and quizzes were organised during the period. Large number of students participated in the programme.

The Centre organised **online workshop on 'Classification in Wildlife'** on October 6, 2020 and an online quiz next day. Students learnt about taxonomy and evolutionary impacts on different species during the workshop.

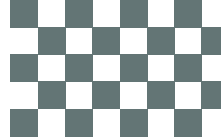
NSC, Delhi organised a popular talk on **'Science and Technology for a Happy and Secured future of Mankind'** on May 11, 2020. Prof. P. B. Sharma, Vice Chancellor, Amity University delivered the lecture which was live streamed over Facebook and YouTube on May 11, 2020.

A popular lecture on **'Genome Jaunts'** by Dr. Mitali Mukherji, Chief Scientist, CSIR-IGIB and Shantiswarup Bhatnagar awardee was live streamed on YouTube channel by NSCD on September 24, 2020.

On the occasion of World Science Day on November 10, 2020, a popular science lecture on **'Plant Health and Social Wellbeing'** by Dr. K. S. Rao, Professor and Head, Department of Botany, University of Delhi was organised. This lecture streamed on YouTube channel and a large number of audiences joined the programme online.

A panel discussion on the theme **'Museums for Equality: Diversity and Inclusion'** to celebrate International Museum Day on May 18, 2020 was organised. The participating institutions were The Museum Group, Washington D.C., USA; Nehru Memorial Museum & Library; National Museum, New Delhi; Science Museum, London, UK and National Science Centre (NCSM), New Delhi.





5 जून, 2020 को विश्व पर्यावरण दिवस के अवसर पर 'प्रकृति के लिए समय' पर एक और ऑनलाइन पैनल चर्चा का आयोजन किया गया। इस पैनल चर्चा में मुख्य वक्ता पद्म भूषण डॉ. अनिल प्रकाश जोशी, प्रख्यात हरित कार्यकर्ता, सामाजिक कार्यकर्ता, वनस्पतिशास्त्री एवं हिमालयी पर्यावरण अध्ययन और संरक्षण संगठन (HESCO)-कृषि क्षेत्र के लिए पर्यावरणीय रूप से टिकाऊ प्रौद्योगिकियों के विकास में शामिल एक गैर सरकारी संगठन के संस्थापक रहे।

'नंदा देवी ग्लेशियर का फटना: कारण और चिंताएं' और 'कृत्रिम बुद्धिमत्ता: अवसर और चुनौतियां' पर पैनल चर्चा का आयोजन फरवरी, 2021 में किया गया।

बच्चों को घर पर वैज्ञानिक गतिविधियों में व्यस्त रखने के लिए, अप्रैल-मई 2020 में एक ऑनलाइन प्रतियोगिता S&T@Home का आयोजन किया गया। 1000 से अधिक स्कूली बच्चों ने घर पर आसानी से उपलब्ध सामग्री का उपयोग करके वैज्ञानिक प्रयोगों के रोचक वीडियो, इस प्रतियोगिता में, ऑनलाइन जमा किए।

सितंबर-अक्टूबर माह में 'सूर्य को समझे' 'सौर मंडल' और 'चंद्रमा-हमारा आकाशीय पड़ोसी' विषय पर खगोल विज्ञान कार्यशालाओं का आयोजन किया गया। 'सबसे लंबी रात में एक खगोलीय आश्चर्य' विषय पर ऑनलाइन व्याख्यान का आयोजन 21 दिसंबर, 2020 को किया गया इसमें डॉ. डी.पी. दुआरी, निदेशक, अनुसंधान एवं शैक्षिक, एम.पी. बिड़ला तारामंडल, कोलकाता द्वारा बृहस्पति-शनि के संयोजन के अवसर पर व्याख्यान दिया गया। इसी दिन, दूरबीन द्वारा 'बृहस्पति और शनि ग्रहों के संयोजन' का अवलोकन कराया गया और 150 से अधिक जिज्ञासु दर्शक इस अनोखी खगोलीय घटना के साक्षी बने।

रा.वि.के., दिल्ली ने 8 से 12 जून, 2020 तक वैज्ञानिक खिलौना निर्माण और एस्ट्रो लैब (खगोल विज्ञान) विषय में ऑनलाइन ग्रीष्मावकाश रुचि शिविर आयोजित किए। इन रुचि शिविरों में विभिन्न स्कूलों के कुल 41 छात्रों ने भाग लिया और 23 किट / प्रोजेक्ट विकसित किए। 8 से 23 दिसंबर, 2020 तक जैव प्रौद्योगिकी, खगोल विज्ञान और रोबोटिक्स विषयों पर शीत-अवकाश रुचि शिविर आयोजित किए गए। विद्यार्थियों ने ऑनलाइन शिविरों में भाग लिया और परस्पर संवादात्मक तरीके से अधिगम किया।

रा.वि.के., दिल्ली ने सितंबर-अक्टूबर में महात्मा गांधी की 150वीं जयंती के समापन समारोह के दौरान 'गांधी और विज्ञान' विषय पर विभिन्न शैक्षिक गतिविधियों का आयोजन किया। इस दौरान चित्रकला प्रतियोगिता, छात्र संगोष्ठी और ऑनलाइन प्रश्नोत्तरी आयोजित की गई। 'गांधीवादी विचार और विज्ञान' पर एक चलचित्र बनाओ प्रतियोगिता भी आयोजित की गई जिसमें प्रतिभागियों ने घरेलू सामग्री का उपयोग करके घर पर स्वयं शूटिंग करके रचनात्मक चलचित्र बना जमा करे। इन कार्यक्रमों के अधिकांश वीडियो एन.एस.सी.डी. टीवी पर अपलोड किए गए, जो केन्द्र का आधिकारिक यूट्यूब चैनल है।

Online panel discussion on '**Time for Nature**' was organised on the occasion of World Environment Day on June 5, 2020. The keynote address was delivered by Padma Bhushan Dr. Anil Prakash Joshi, an eminent green activist, social worker, botanist and the founder of Himalayan Environmental Studies and Conservation Organization (HESCO), an NGO involved in the development of environmentally sustainable technologies for the agricultural sector.

Panel discussions on '**Nanda Devi Glacier Burst: Causes & Concerns**' and on '**Artificial intelligence: Opportunity & Challenges**' were organised in February, 2021.

In order to keep the school children engaged in scientific activities at home, an online contest **S&T@Home** was organised in April-May 2020. More than 1000 school children submitted interesting videos of their scientific experiments using easily available materials at home.

Astronomy workshop on '**Understanding the Sun' 'Solar System' and 'Moon-Our Celestial Neighbour'** were organised in Sept.-Oct. 2020. An online lecture on '**A Celestial Wonder on the Longest Night**' by Dr. D.P. Duari, Director, Research & Academics, M. P. Birla Planetarium, Kolkata was organised on the occasion of Jupiter-Saturn Conjunction on December 21, 2020. Observation of '**Jupiter and Saturn Conjunction**' through Telescope was arranged same day in which more than 150 people witnessed this unique celestial event.

NSC, Delhi organised online **Summer Vacation Hobby Camps** in two streams - Scientific Toy Making and Astro Lab from June 8 to 12, 2020. In these hobby camps total 41 students from different schools participated and 23 kits/projects were developed. **Winter Hobby Camps** were organised from December 8 to 23, 2020 on the topics, Biotechnology, Astronomy & Robotics. The students joined the camps online and participated in an interactive manner.

NSC, Delhi organised various educational activities on 'Gandhi and Science' during the closing ceremony of 150th Birth Anniversary of Mahatma Gandhi in Sept.-Oct. 2020. Sit and Draw Contest, Student Seminar and online quiz were conducted. A video making contest on 'Gandhian thoughts and Science' was also organised in which participants submitted their self-made creative video by shooting at home using household materials. Most of the videos of these programmes are uploaded in NSCD TV, which is the official YouTube Channel of NSCD, for public viewing.

आंचलिक विज्ञान नगरी, लखनऊ ने विशेष रूप से छात्रों और बड़े पैमाने पर जनता के लिए बड़ी संख्या में ऑनलाइन गतिविधियों और परस्पर-संवादात्मक सत्रों का आयोजन किया। रोबोटिक्स एन.एक्स.टी. प्रोग्रामिंग, 3डी प्रिंटिंग और इसके अनुप्रयोग, खगोल विज्ञान और खगोल भौतिकी, अरोमा ऑयल और हर्बल सैनिटाइज़र बनाना, पायथन सॉफ्टवेयर सीखें, रोबोट क्रियाविधि और कोडिंग, आर्डिनो और आई.डी.ई. के माध्यम से गृह स्वचालन, सेंसर को समझे और मनोरंजक कोडिंग पर परस्पर-संवादात्मक सत्र आदि का आयोजन किया गया। लखनऊ विश्वविद्यालय के शताब्दी समारोह के अवसर पर सचल-विज्ञान प्रदर्शनी का आयोजन नवंबर 2020 में किया गया। 4 सितंबर, 2020 को राष्ट्रीय विज्ञान अकादमी, भारत, लखनऊ चैप्टर के साथ संयुक्त रूप से 'कोविड-रोग प्रतिरक्षा-उत्तम औषधि है' विषय पर ऑनलाइन व्याख्यान आयोजित किया गया। 16 सितंबर, 2020 को विश्व ओजोन दिवस के अवसर पर प्रो. ध्रुव सेन सिंह, भूविज्ञान विभाग, लखनऊ विश्वविद्यालय द्वारा 'ओजोन - हमारा जीवन' पर एक और ऑनलाइन व्याख्यान दिया गया। विशेष कार्यक्रम के तहत मई 2020 में 'प्रकृति की खोज' कार्यशाला और लोकप्रिय वार्ता-आर्कटिक: अंतिम सीमा-; पशु व्यवहार और जैव विविधता के महत्व और 'कोविड लॉकडाउन के कारण CO₂ में उतार-चढ़ाव' पर आयोजित की गई और इनकी लाइव स्ट्रीमिंग सोशल मीडिया के माध्यम से की गई।

राष्ट्रीय खेल दिवस के अवसर पर 29 अगस्त, 2020 को 'खेल और स्वास्थ्य' पर एक ऑनलाइन लोकप्रिय व्याख्यान आयोजित किया गया। 21 दिसंबर, 2020 को 'विशाल ग्रहों का पुनर्मिलन: बृहस्पति-शनि के संयोजन' विषय पर एक ऑनलाइन व्याख्यान आयोजित किया गया। विज्ञान, प्रौद्योगिकी और नवाचार (एसटीआई) का भविष्य: शिक्षा, कौशल और कार्य पर प्रभाव' विषय पर एक ऑनलाइन लोकप्रिय व्याख्यान 28 फरवरी, 2021 को आयोजित किया गया। 22 जुलाई, 2020 को 'भूजल अन्वेषण: आगामी समस्याएं और समाधान' पर पैनल चर्चा आयोजित की गई।

Regional Science Centre, Lucknow organised large number of online activities & interactive sessions for students in particular and public at large. Interactive sessions on Robotics NXT Programming, 3D printing & its application, Astronomy & Astrophysics, Making of Aroma Oil & Herbal Sanitizer, Learning python & its real time application, Robot Mechanism & Coding, Home automation through arduino & IDE, Understanding the Sensors and Fun with Coding etc. were organised during the period. Mobile Science Exhibition was organised on the occasion of Centenary celebration from in November 2020 at Lucknow University. An online lecture on 'COVID-Immunity is the best Vaccine' was organized jointly with National Academy of Sciences India (NASI) Lucknow Chapter on September 4, 2020 using Google Meet. Another online lecture on 'Ozone - Our Life' was delivered by Prof. Dhruv Sen Singh, Geology Department, Lucknow University on the occasion of World Ozone Day on September 16, 2020. Under a special programme on 'Exploring Nature', popular talks on 'Arctic: The Last Frontier'; on 'Animal behavior & importance of Biodiversity' and on 'CO₂ fluctuation due to COVID lockdown' was organized in May 2020 and its live streaming was done in social media.

An online popular lecture on 'Sports & Fitness' was organized on August 29, 2020 on the occasion of National Sports Day. An online lecture on 'The Great Reunion of Planetary Giants: Jupiter and Saturn Conjunction' was organised on December 21, 2020. An online popular lecture on 'Future of Science, Technology & Innovation (STI): Impacts on Education, Skills and Work' was organized on February 28, 2021. Panel discussion on 'Ground water exploration: upcoming problems and solution' was organized on July 22, 2020.





आ.वि.न., लखनऊ ने 25 अप्रैल से 3 मई, 2020 तक 'कोविड-19: भारत की जवाबी लड़ाई' विषय पर ऑनलाइन पोस्टर बनाओ प्रतियोगिता का आयोजन किया। 31 अक्टूबर, 2020 को सरदार वल्लभ भाई पटेल की जयंती के अवसर पर प्रश्नोत्तरी प्रतियोगिता और 'सरदार पटेल के राजनैतिक जीवन और राष्ट्र निर्माण में उनके योगदान' विषय पर एक लोकप्रिय व्याख्यान का आयोजन किया गया। 24 जुलाई, 2020 को राष्ट्रीय विज्ञान अकादमी, भारत, लखनऊ चैप्टर के साथ संयुक्त रूप से 'कोविड-19: अनदेखा और अनसुना' विषय पर एक ऑनलाइन वेबिनार का आयोजन किया गया। 29 जुलाई, 2020 को 'हाइड्रोपोनिक्स: बिना मृदा सब्जियाँ उगाए' पर एक ऑनलाइन सत्र आयोजित किया गया। 18 जनवरी, 2021 को सी.एस.आई.आर.- भारतीय विषयविज्ञान अनुसंधान संस्थान, लखनऊ के साथ संयुक्त रूप से 'पेयजल: समस्या और निवारण' पर राष्ट्रीय वैज्ञानिक सम्मेलन आयोजित किया गया। 23 जून, 2020 को विद्यार्थियों और उनके परिवार के लिए 'हर्बल सैनिटाइजर बनाए: उपयोग, परीक्षण और दुष्प्रभाव' पर एक ऑनलाइन कार्यशाला का आयोजन किया गया। 26 अगस्त, 2020 को प्राथमिक कक्षा के छात्रों के लिए 'ओरिगेमी' पर एक ऑनलाइन कार्यशाला का आयोजन किया गया। विद्यार्थियों ने कागजों को मोड़कर आधारभूत ज्यामिति और गणित को सीखा। ऑनलाइन ग्रीष्मावकाश रुचि शिविर का आयोजन 8 से 14 जुलाई और 12 से 18 अगस्त, 2020 तक किया गया, जिसमें 64 छात्रों ने तीन अलग-अलग विषयों में भाग लिया। स्वच्छता पखवाड़ा के दौरान, आ.वि.न. लखनऊ ने 16 से 30 सितंबर, 2020 तक विशेष सफाई अभियान सहित विभिन्न कार्यक्रमों और गतिविधियों का आयोजन किया।

RSC, Lucknow organised online poster making contest on the topic 'COVID-19: India Fight Back' from April 25 to May 3, 2020. On the occasion of Birth Anniversary of Sardar Vallabhbhai Patel on October 31, 2020, quiz contest and a popular lecture on 'Political life of Sardar Patel and his contribution in Nation Building' was organised. An online webinar on 'COVID-19: The Unseen and Unsaid' was organized on July 24, 2020 jointly with National Academy of Sciences India (NASI) Lucknow Chapter. An online session on 'Hydroponics: Growing Vegetable without Soil' was organised on July 29, 2020. National Scientific Conference on 'Drinking Water: Problem and Prevention' was organised jointly with CSIR-Indian Institute of Toxicology Research, Lucknow on January 18, 2021. An online workshop on 'Making of Herbal Sanitizer: Uses, Testing & Side Effects' was organized for the students and their families on June 23, 2020. An online workshop on 'Origami' was organized for primary class students on August 26, 2020. The students learnt basic mathematics on geometry of size & shape by folding papers. Online summer Hobby camps were organised from July 8 to 14 & August 12 to 18, 2020 in which 65 students participated in three different streams. During 'Swachhta Pakhwada' RSC, Lucknow organised various programmes and activities from September 16 to 30, 2020, including special cleaning drive.

कुरुक्षेत्र पैनोरमा एवं विज्ञान केंद्र, कुरुक्षेत्र ने 18 मई, 2020 को डॉ सुखदेव सैनी, विभागाध्यक्ष, प्राचीन भारतीय इतिहास संस्कृति और पुरातत्व, कुरुक्षेत्र विश्वविद्यालय, कुरुक्षेत्र द्वारा 'समानता के लिए संग्रहालय: विविधता और समावेश' विषय पर ऑनलाइन व्याख्यान का आयोजन किया। विंग्स ऑफ एयरो-टेम्स अकादमी के सहयोग से 9 जून, 2020 को 100 उपग्रहों का प्रक्षेपण करने हेतु अंतरिक्ष प्रणाली पर एक लोकप्रिय व्याख्यान ऑनलाइन आयोजित किया गया। 24 अगस्त, 2020 को सोशल मीडिया के माध्यम से 'विश्व के सबसे बड़े जल-रॉकेट के प्रक्षेपण' पर एक वेबिनार का आयोजन किया गया। इस ऑनलाइन कार्यक्रम में 1000 से अधिक प्रतिभागियों ने भाग लिया। अंतर्राष्ट्रीय अंतरिक्ष स्टेशन की आभासी सैर, 'हाइब्रिड हेल - एयरशिप का डिजाइन और विकास', 'नासा का एयरोस्पेस - ओपन सोर्स सॉफ्टवेयर', 'भविष्य के एयरोस्पेस वाहनों का डिजाइन' और 'गैर-एयरोस्पेस इंजीनियरों के लिए इंटरशिप अवसर' पर वेबिनार की एक श्रृंखला का आयोजन किया गया जिसमें विभिन्न संगठनों के प्रतिनिधियों ने भाग लिया। गेमिंग सॉल्यूशन, टेसेलेशन और फ्रैक्टल्स और डिजी अभ्यास पर ऑनलाइन परस्पर-स्वादात्मक कार्यशाला का आयोजन किया गया। सोशल मीडिया दर्शकों के लिए भ्रमणशील विज्ञान प्रदर्शनी- 'ऊर्जा' की आभासी सैर दिसंबर 2020 से मार्च 2021 के दौरान आयोजित की गई। राष्ट्रीय प्रौद्योगिकी दिवस के अवसर पर 'प्रौद्योगिकी के उपयोग और दुरुपयोग' पर एक लोकप्रिय व्याख्यान 11 मई, 2020 को आयोजित किया गया। कुरुक्षेत्र पैनोरमा एवं विज्ञान केन्द्र, द्वारा 'पादप स्वास्थ्य' और राष्ट्रपिता एक डिजिटल श्रद्धांजलि विषयों पर डिजिटल प्रदर्शनियों का भी आयोजन किया गया।

Kurukshetra Panorama & Science Centre, Kurukshetra organised online lecture on the topic **'Museum for Equality: Diversity and Inclusion'** on May 18, 2020 by Dr. Sukhdev Saini, Chairman, AIH Culture & Archaeology, Kurukshetra University, Kurukshetra. A popular lecture on **'Space Systems to launch 100 Satellites'** was organised online on June 9, 2020 in collaboration with Wings of Aero-TEMS academy. A webinar on **'Launch of World's largest Water Rocket'** was organised on August 24, 2020 through social media. More than 1000 online visitors participated in this programme. A series of **webinars on 'Virtual Tour to International Space Station', 'Design & Development of Hybrid HALE – Airship', 'NASA's Aerospace - Open Source Software', 'Future Aerospace Vehicle Design' and 'Internship Opportunity for Non - Aerospace Engineers'** were organised in which resource persons from different organisation participated. Online interactive workshops on **Gaming Solution, Tessellations and Fractals** and **Digi Abhyas** were also organized. Virtual tour to **Mobile Science Exhibition on 'Energy'** for social media viewers was organised during December 2020 to March 2021. A popular talk on **'Uses & Abuses of Technology'** on the occasion of National Technology Day was organised on May 11, 2020. KPSC also organised digital exhibition on **'Plant Health'** and **'The Father of The Nation: A Digital Tribute'**.







All the units in north zone organised special programmes to commemorate the days of national & international importance like World Health Day (7th April), Earth Day (22nd April), National Technology Day (11th May), International Museum Day (18th May), World Environment Day (5th June), International Day of Yoga (21st June), World Population Day (11th July), World Ozone Day (16th September), National Unity Day (31st October) & National Science Day (28th February).

उत्तरी क्षेत्र की सभी इकाइयों ने विश्व स्वास्थ्य दिवस (7 अप्रैल), पृथ्वी दिवस (22 अप्रैल), राष्ट्रीय प्रौद्योगिकी दिवस (11 मई), अंतर्राष्ट्रीय संग्रहालय दिवस (18 मई), विश्व पर्यावरण दिवस (5 जून), अंतर्राष्ट्रीय योग दिवस (21 जून), विश्व जनसंख्या दिवस (11 जुलाई), विश्व ओजोन दिवस (16 सितंबर), राष्ट्रीय एकता दिवस (31 अक्टूबर) और राष्ट्रीय विज्ञान दिवस (28 फरवरी) जैसे राष्ट्रीय और अंतर्राष्ट्रीय महत्व के दिनों को मनाने के लिए विशेष कार्यक्रम आयोजित किए।

मुझे लगता है कि संदेश समाप्त करने से पूर्व, जब तक कि मैं राष्ट्रीय विज्ञान केन्द्र, दिल्ली, आंचलिक विज्ञान नगरी, लखनऊ और कुरुक्षेत्र पैनोरमा एवं विज्ञान केन्द्र, कुरुक्षेत्र के अपने साथी अधिकारियों और कर्मचारियों के अथक प्रयासों को श्रेय नहीं दूंगा तब तक अपना कर्तव्य पूर्ण नहीं नहीं समझूंगा, जिन्होंने अपनी पूर्ण निष्ठा, समर्पण और प्रतिबद्धता द्वारा निर्धारित लक्ष्यों को प्राप्त करने हेतु अथक प्रयास किए। साथ ही मैं अपने मुख्यालय राष्ट्रीय विज्ञान संग्रहालय परिषद, राष्ट्रीय विज्ञान केन्द्र दिल्ली की सलाहकार समितियों, कार्यकारी समिति, कार्यक्रम और योजना समिति, और आंचलिक विज्ञान नगरी, लखनऊ एवं कुरुक्षेत्र पैनोरमा एवं विज्ञान केन्द्र, कुरुक्षेत्र की स्थानीय सलाहकार समितियों के प्रति भी कृतज्ञता अभिव्यक्त करता हूँ।

आने वाले वर्षों के दौरान कई और सफलताओं को साझा करने की आशा के साथ।

(डी. राम. शर्मा)

Before I conclude, I will be failing in my duties, if I do not credit the untiring efforts that my fellow officers and staff members of NSCD, RSCL and KPSC who have put in and extended unqualified support besides exhibiting dedication, passion and commitment which has been solely responsible for the results that are seen. I also owe my indebtedness to our headquarter at NCSM, advisory committees of NSCD, the Executive Committee, Programme and Planning Committee of NSCD and Local Advisory Committees of RSCL and KPSC.

Looking forward to sharing many more successes during the years to come.

(D. Rama Sarma)



NSC दिल्ली



BRIEF OF PROGRAMMES, ACTIVITIES, COLLOBORATIONS



Summer Vacation Hobby Camps

were organised Online in two streams - Scientific Toy Making and Astro Lab from June 8 to 12, 2020. The students from class 6th to 8th participated in these camps. 23 students participated in the Scientific Toy Making workshop and developed 17 kits. 18 students participated in the Astro Lab programme and developed 6 astronomical kits. In these hobby camps total 41 students from different schools participated and 23 kits/projects were developed.

Winter Hobby Camps were organised from December 8 to 23, 2020 on Biotechnology, Astronomy & Robotics. The students joined the

camps online and participated in an interactive manner. In the Biotechnology camp, the students learnt about the DNA extraction from banana/pea seeds and understood the complex mechanism of working of different organs in human body. During the camp in Astronomy, the students learnt to develop planisphere, being used to identify the stars and constellations by measuring the angular distance between celestial bodies. In Robotics stream, the students learnt the programming using Lego NXT Kit. The programming and assembling of Lego NXT kit was demonstrated in detail and students also made program on NXT 2.0 programming software. Students from various schools participated in these camps.



During an online **Teacher's Training Programme** September 8, 2020, a group of pre-service teachers learnt to develop & use low cost teaching aid to supplement their classroom teaching. Another online TTP for DIET students was organised on October 13, 2020. An online training programme on 'The Science around us' was organised for in-service teachers on October 15 & 16, 2020. The participants learnt various ways to develop interactive science activities for classroom teaching. The Centre organized a series of programmes for

staff members to encourage the use of Hindi language in official communication as well in daily routine work. Extempore talk, Quiz contest, Essay writing contest, Dictation writing contest, Hindi Typing contest, Hindi Translation contest & note/proposal making contest in Hindi was organized from September 14 to 30, 2020 during Hindi Diwas Pakhwada. Most of the staff participated in these programmes. In addition, online **Rajbhasha Karayshalas** were organised on September 21, December 23, 2020 & March 31, 2021.

E-WORKSHOP

An workshop on '**App development**' was organised online from May 26 to 29, 2020 in which 41 students participated. These student were given training to develop their own Apps during the workshop using MIT platform. This workshop was organised in collaboration with Learning Link Foundation. E-Workshop on '**Artificial Intelligence**' was organised from June 1 to 5, 2020 in which 45 students participated. The students learnt basic study of Artificial Intelligence and its applications in day to day life during the workshop.

E-Workshop on 'Digi Abhyas' was organised on June 3, 2020 to focus on maintaining a balanced approach between human life and fast changing technologies. 52 teachers participated in this . An online orientation workshop on '**Gaming for Education**' was also organised in which 104 teachers participated and learnt how to use gaming platforms for education. Another E-Workshop on Artificial

Intelligence (Advance Level) was organised from June 22 to 26, 2020 in which 42 students participated.

These E-Workshops were organised in collaboration with Learning Link Foundation. An online workshop on '**Electronics & IoT** (Internet of Things)' was organised on 8th-9th August and 22nd-23rd August, 2020. During this workshop, students learnt the benefit of IoT for using to work remotely with controlling and managing an entire production line with just a tablet and an internet connection. 19 students from various schools participated in this workshop.

Tool Operation Workshop for Innovation Space members was organised on December 30 & 31, 2020. The objective of the workshop was to acquaint the members with the operation of different mechanical, electrical and electronics tools. Participating members were trained during the workshop.



The Centre organised a **popular talk** on 'Science and Technology for a Happy and Secured future of Mankind' on May 11, 2020. Prof. P. B. Sharma, Vice Chancellor, Amity University delivered the lecture which was live streamed over Facebook and YouTube on May 11, 2020.

A **popular lecture** on 'Genome Jaunts' by Dr. Mitali Mukherji, Chief Scientist, CSIR-IGIB and Shantiswarup Bhatnagar awardee was live streamed on YouTube channel by NSCD on September 24, 2020. More than 400 viewers attended this online lecture this was followed by question answer session.

On the occasion of World Science Day on November 10, 2020, a popular science **lecture on 'Plant Health and Social Wellbeing'** by Dr. K. S. Rao, Professor and Head, Department of Botany, University of Delhi was organised. This lecture streamed on YouTube channel and a large number of audiences joined the programme online.

National Science Centre, Delhi organised a **panel discussion** on the theme '**Museums for Equality: Diversity and Inclusion**' to celebrate International Museum Day on May 18, 2020. The participating institutions were The Museum Group, Washington D.C., USA; Nehru Memorial Museum & Library; National Museum, New Delhi; Science Museum, London, UK and National Science Centre (NSCM), New Delhi. The participants from these institutions shared their experiences on diversity and inclusiveness of their museums. The panel discussion was moderated by National Science Centre, Delhi. The panel discussion was live streamed over Facebook and YouTube on May 18, 2020. A large number of audiences visited the social media and liked the programme.

Another online panel discussion on '**Time for Nature**' was organised on the occasion of World Environment Day on June 5, 2020. The keynote address was delivered by Padma Bhushan Dr. Anil Prakash Joshi, an eminent green activist, social worker, botanist and the founder of Himalayan Environmental Studies and Conservation Organization (HESCO), an NGO involved in the development of environmentally sustainable technologies for the agricultural sector. Other participants in the panel discussion

were from Rutgers University, USA; University of Delhi; University of Bayreuth, Germany and Hara Jeevan NGO. National Science Centre, Delhi moderated the panel discussion. This panel discussion video was uploaded on official YouTube channel – NSCD TV OFFICIAL and it received overwhelming response from viewers.

The National Science Centre, Delhi organised online panel discussion on '**Nanda Devi Glacier Burst: Causes & Concerns**' on February 18, 2021. Padambhusan Dr. Anil Prakash Joshi, Founder, Himalayan Environmental Studies and Conservation Organization (HESCO), Dehradun; Dr. Sanjay Kr. Jain, Head, Water Resources Systems Division, National Institute of Hydrology; Dr. Ranoj Thayyen, Scientist, Water Resources Systems Division; Dr. Santosh Kumar Rai, Scientist, Wadia Institute of Himalayan Geology, Dehradun and Dr. Manish Mehta, Scientist, Wadia Institute of Himalayan Geology, Dehradun participated in the panel discussion. The participants from these institutions shared their views on causes & concerns of recent glacier burst. The panel discussion was moderated by National Science Centre, Delhi. The panel discussion was streamed live on NSCD's YouTube channel NSDC TV Official. More than two hundred viewer participated in the panel discussion. This panel discussion video was uploaded on official YouTube channel – NSCD TV OFFICIAL and it received overwhelming response from viewers.

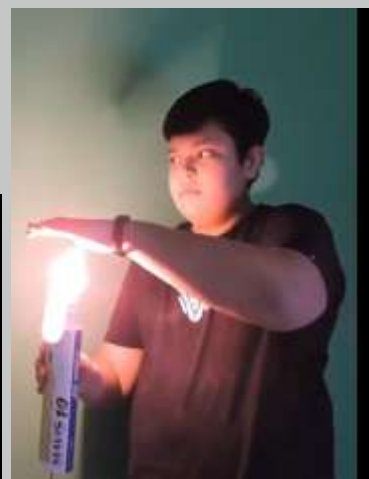
Online panel discussion on '**Artificial intelligence: Opportunity & Challenges**' was organised on February 26, 2021. Dr. Mathew James Bailey, Innovation Ecosystem; D. Kishore Balaji, Director – Global Trade Policy, Intel India; Dr. Rahul Katarya, Associate Professor, Delhi Technological University, Delhi and Ms. Nuriya Ansari, Managing Partner, Learning Links Foundation, India participated in the discussion. The panellists discussed that Artificial Intelligence has immense potential to change each sector of the economy for the benefit of society. The panel discussion was moderated by National Science Centre, Delhi. The panel discussion was streamed live on NSCD's YouTube channel NSDC TV Official. People in large number joined on YouTube during the programme. This panel discussion video was uploaded on official YouTube channel – NSCD VFFICIAL and it received overwhelming response from viewers.

In order to keep the school children engaged in scientific activities at home, an online contest S&T@Home was organised in April-May 2020. More than 1000 school children submitted interesting videos of their scientific experiments using easily available materials at home. Selected videos were uploaded on social media where these received overwhelming response from viewers. An online Painting Contest on the occasion of the Earth Day on April 22, 2020 was also a huge success as the entries received were uploaded on Facebook for the first time and viewers were asked to give their vote for selecting winners. Large number of students participated in the contest.

Live online science demonstration lectures on Sound, Liquid, Heat, Air Pressure and Chemistry were organised during the period.

Online astronomy programmes using Science on Sphere facility were conducted for school students. In addition, large number of online educational programmes were organized to commemorate World Ozone Day (16th September), World Science Day (10th November), World AIDS Day (1st December), National Mathematics Day (22nd December) and National Science Day (28th February).

Most of the videos of these programmes are uploaded in NSCD TV, which is the official YouTube Channel of NSCD, for public viewing.





'Jupiter and Saturn Conjunction' through Telescope was arranged for general public and more than 150 people witnessed this unique celestial event.

AWARENESS PROGRAMMES ON ASTRONOMY

Various awareness programmes on astronomy were organised during this period. Astronomy workshop on 'Understanding the Sun' 'Solar System' and 'Moon-Our Celestial Neighbour' were organised in Sept.-Oct. 2020. The participants learnt the structure and composition of Sun and calculated the diameter of Sun by performing an activity. In another workshop, the participants learnt the composition of moon and understand the causes of moon phases. Large number of students from various schools participated in these workshop.

An online lecture on 'A Celestial Wonder on the Longest Night' by Dr. D.P. Duari, Director, Research & Academics, M. P. Birla Planetarium, Kolkata was organised on the occasion of Jupiter-Saturn Conjunction on December 21, 2020. The lecture was organised on Google Meet online platform and streamed live on NSCD's YouTube channel. The lecture was also streamed live on NCSM facebook page. Around 100 astronomy enthusiastic people joined on Google meet and more than 600 watched it on YouTube. Observation of 'Jupiter and Saturn Conjunction' through Telescope was arranged same day in which more than 150 people witnessed this unique celestial event.

Live webcast of partial solar eclipse on NSCD's official Facebook page was done on June 21, 2020. The webcast was arranged by taking the projection of sun's image on the screen. In addition, online quizzes on astronomy were organised in April, May, June & July 2020. About 150 students participated in these quizzes.

National Science Centre, Delhi organised online session on '**Isolation of DNA**' at home on August 5, 2020. During the session, students learnt the properties of cell and DNA. They also learnt how to extract DNA at home by using household material. 14 students from various schools of Delhi & NCR participated in this session.

During an online session on '**Tessellations in Art and Architecture**' on August 7, 2020, students drew beautiful tessellation patterns. 19 students from various schools participated in this session.



An online session on 'Human Torso' was organised on September 21, 2020 in which the students learnt the anatomy and morphology of human body. They also got familiar with functions

of different system of Human body. A full scale human torso was used for demonstrating size and structure of different internal parts of human body to participants.



An workshop on 'Scientific Toy Making' was organised online on January 12, 2021. The workshop was attended by school students on Google meet. Students developed various scientific toys like Cartesian Diver, Vortex etc. during the workshop. Students learnt various scientific principles while developing these toys.

National Science Centre organised online **Yoga abhyas** session for officers and staff members on June 21, 2020 on the occasion of International Day of Yoga. A demonstration video was developed for performing the Yoga Aasans. This video was uploaded on the Centre's official YouTube Channel. Almost all staff members performed the Yoga Assan and practiced yoga at home.

National Science Centre, Delhi with support from MASHAV, Embassy of Israel installed **Drip Irrigation System** on March 18, 2021 at its Herbal Garden. On the occasion, a delegation from Embassy of Israel including Ms. Rony Yedidia Clein, Deputy Chief of Mission; Mr. Dan Alluf, Counsellor Mashav (Agriculture); Ms. Orly Goldschmidt, Head of Public Diplomacy; Mr. Muhammad Heib, Spokesman and Mr. Doron Gidony, Mashav was present.

Renovation of Pre-historic Life gallery at NSC, Delhi has been completed.

During **Sankalp Parva-2020** from July 6 to 9, 2020, a plantation drive was initiated and saplings of Peepal, Amla and Ashok trees were planted at the premises of NSCD. In addition, online sit & draw contest, debate contest, interactive online sessions and quizzes were organised during the period. Large number of students participated in the programme.

Online **Sit and Draw** contest was organised on 06th July 2020 in two categories; Category A (Class 3rd to 5th) & Category B (Class 6th to 8th). Total 51 students were participated in this contest and submitted their painting online via Google forms.

Online **Debate contest** was on the topic Forest was organised on 07th July 2020. 21 students from Class 8th to 10th were participated in this contest. This contest was organised on Google meet. The winners of the contest were awarded e-certificates.



Online Session on Plants around you: An interactive workshop on the topic **"Plants around you"** was conducted online on 08th July 2020 for students. Twenty six students from Class 6th to 8th were participated in this session. In this workshop students learnt various methods to identify plants and their uses in daily life.

Online Quiz on Forest and Wildlife: An online quiz on the topic **"Forest & Wildlife"** was organised on 09th July 2020 for students. Total 48 students from various schools were participated in the quiz contest.

Online Session on Comet- Guest of solar system: National Science Centre, Delhi organised an online astronomy session on the topic **"Comet- Guest of our Solar System"** on 29th July 2020. During the session students learnt about the comet, their structure, orbit etc. A live demonstration of making replica of comet is also performed during the session. Total 25 students from various schools were participated in this session.

Online lecture and painting contest was organised on the occasion of Vigilance Awareness Week in November 2020. Prof. M. A. Sikandar, MANUU, Hyderabad delivered the lecture on 'Satark Bharat, Samriddh Bharat'. The lecture was attended by the staff members of NCSM Northern Zone Units. The painting contest was organised for school children and winners were awarded e-certificates. On the occasion of Constitution Day on November 26, 2020, an online lecture on 'Indian Constitution- An Elegant Charter' by Dr. Dinesh Gehlot, Jai Narayan Vyas University, Jodhpur was organised as a part of Awareness Programme on Fundamental Duties of Indian Constitution. This programme was organised for NSCD staff members.

An online workshop on **'Protect Yourself- Health & Hygiene'** was organised on September 10, 2020. During the workshop participants learnt about the hygiene practices to stay healthy. They also understood the importance of cleanliness to prevent diseases. In this workshop participants made hand sanitizer using alcohol and household materials. Total 49 students from various schools participated in this workshop.



Wildlife Week is annually celebrated across India between October 2 to 8, with an aim to protect and preserve the flora and fauna of India. Wildlife Week 2020 was celebrated under the theme RoaR (Roar and Revive) – Exploring Human-Animal Relationships. To sensitise the masses with the importance of wildlife, the Centre organised online workshop on 'Classification in Wildlife' on October 6, 2020 and an online quiz next day. Students learnt

about taxonomy and evolutionary impacts on different species during the workshop.

Various educational activities on '**Gandhi and Science**' were organised during the closing ceremony of 150th Birth Anniversary of Mahatma Gandhi in Sept.-Oct. 2020. Sit and Draw Contest, Student Seminar and online quiz were conducted. A video making contest on '**Gandhian thoughts and Science**' was also organised in which participants submitted their self-made creative video by shooting at home using household materials. All activities were attended by large number of participants.

As a part of year-long **Celebration of Constitution Day**, NSCD organised online painting contests, online quiz and online seminar in August 2020. More than 1000 school children participated in these programmes. Wide coverage was given in the social media in this regard.

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Online Work...



Turn on captions

Present now





مؤسسة رشيد





Regional Science City Lucknow organizes several event based on different theme of science throughout the year (2020-21). Commemorative programme like National Technology Day, International Museum Day, World Environment Day, International Yoga Day, 31st Anniversay Celebration of RSCL, National Sports Day, International Ozone Layer Conservation Day, 150th Birth Anniversary Celebration of Mahatma Gandhi, National Unity Day, International Science Centre & Science Museum day, Qaumi Ekta Week, Constitution Day, National Pollution Control Day Celebration, World AIDS Day Celebration, Birth Anniversary Celebration of Sir Stephen Hawking, National Youth Day Celebration, World Leprosy Day Commemoration, World Cancer Day, National Science Day, Celebration of International Women's Day, Sankalp Parv Celebration, World Forestry Day, World Water Day, World Tuberculosis Day and 75 Years of Independence Day were celebrated along with workshops like Robotics, Best Out of Waste, Vedic Mathematics and Panel discussion on Ground water exploration: upcoming problems and solution etc.

Besides above The Mobile Science exhibitions were also organized in Lucknow University and Govt. Girls Inter College, Shamina Road for the benefit of students, teachers and general masses. In order to make the mission of a corruption free India successful, Regional Science City, Lucknow organized a Vigilance Awareness Program in its premises on November 2, 2020. On this occasion, the oath-taking program was organized for making corruption-free India. Many special cleaning drives were organized at RSC Lucknow during swachhta pakhwada to create awareness about health & hygiene.



ACTIVITIES



World Environment Day: Regional Science City, Lucknow organized online activities on 5th June 2020. A short film for creating awareness among the students, teachers and general masses was streamed at RSCL you tube channel along with awareness quiz on social media platform.

National Technology Day: Regional Science City, Lucknow organized video streaming on 'Role of technology during lockdown due to covid-19 pandemic' by Dr. C M Nautiyal, former senior scientist birbal sahani institute of paleobotany, Lucknow.

International Museum Day

Celebration: Regional Science City, Lucknow organized an online quiz on museums and video streaming of popular science lecture on 'human & environment (issues & concerns)' on 18th May 2020 by Prof. A. K. Sharma, former head, zoology department, Lucknow university, Lucknow.

International Yoga Day: Yoga training organised for boosting immunity on 21st June 2020 from 6:00 am onwards through live streaming at RSCL youtube channel. Live demonstration on different yoga asanas was performed and the staff members of RSCL joined the session on centre's youtube channel.

World Leprosy Day:

Regional Science City, Lucknow commemorates World Leprosy Day on 30th January, 2021. To mark the occasion an online popular science lecture organized on the topic 'Leprosy Prevention Awareness Campaign' which was delivered by Dr. Swastika Suvaria, Additional Professor & Head, Department of Dermatology, King George Medical University, Lucknow. About 500 views received till 1st Feb. 2021.

Swachhta Pakhwada Celebration:

Regional Science City, Lucknow organized various programmes and activities on the occasion of 'Swachhta Pakhwada' from 16th to 30th September, 2020. During the programme special cleaning drive at various locations of the center, online workshop on 'Hand Washing & Sanitization' & Tree plantation programme were held.





ACTIVITIES

Online Workshop on Vedic

Mathematics: An online workshop on Vedic mathematics was organized on 28th July 2020 for students. Dr. Komal Asrani, Vedic mathematics trainer, Professor & Head, Department of Information Technology, Babubanarsi Das College, was present as a subject expert. In the programme more than 300 students were registered and 78 were actively participated in the online workshop.

National Sports Day: Regional Science City, Lucknow organised an online popular lecture on topic 'Sports and Fitness' on 29th August, 2020 which was delivered Dr. Preetikerketa, Professor, Physical Education Department, Isabella Thoburn College, Lucknow. More than 60 students actively participated in the programme.

Sankalp Parv Celebration: During the celebration of Sankalp Parv, Regional Science City, Lucknow planted a number of plants like Amla, Banyan, Bel, Peepal and Ashok on first week of July, 2020 in the premises of centre.

Panel Discussion by Experts :

Regional Science City, Lucknow organized an online panel discussion on 'Groundwater exploration: upcoming problems and solution' on 22nd July 2020 for students teachers and general public. During the programme Dr. R. A. Yadav, Former Manager, Ground Water Department U. P. Jal Nigam, & Shri B. B. Trivedi, Former Senior Scientist, Central Ground Water Board, Lucknow were present as experts. In the programme 114 people were registered and 65 were present in the online panel discussion.

National Unity Day Celebration: On the occasion of National Unity Day, an online quiz contest on biography of Sardar Vallabhbhai Patel and a popular lecture were organized, talk was delivered by Prof. Anil Kumar, Ancient Indian History & Archeology Department, Lucknow University, Lucknow.

An online lecture on 'The Great Reunion of Planetary Giants: Jupiter and Saturn Conjunction' was organised on December 21, 2020. The lecture was delivered by the Prof. M. M. Verma, Lucknow University.

150th Birth Anniversary Celebration of Mahatma Gandhi: Regional Science City, Lucknow organized a webinar on the occasion of 150th birth anniversary of Mahatma Gandhi on 2nd October, 2020. During the programme Prof. Kanchansrivastava, Former Director, Indian Institute of Philosophical Research, New Delhi and Head, Department of Philosophy, Lucknow University, Lucknow expressed/delivered her views, about 20 people attended the programme on the day.

International Ozone Layer

Conservation Day: Regional Science City, Lucknow celebrated international ozone layer conservation day on 16th September 2020. To mark the occasion an online popular science lecture was organized on the topic 'Ozone our Life' which was delivered by Prof. Dhruvsen Singh, Geology Department, Lucknow University & Director, Institute of Hydrocarbon Energy & Geo-resources, Lucknow. In this event more than 300 people attended the talk via rscl you-tube channel.

Vigilance Awareness Week: On the occasion of Vigilance Awareness Week on November 2, 2020, an online popular lecture was organized on 'Issue of eradication of corruption' which was delivered by Shri P.V. Rama Shastri, IPS, Director General, Uttar Pradesh, Police & Director, Headquarters Vigilance Department, Lucknow.

International Science Centre &

Science Museum Day: On the occasion of International Science Centre & Science Museum Day on 10th November, 2020 an online experimental science quiz contest and a popular science lecture was organized. The talk was delivered by Prof. Vibhuti Rai, Geology Department, Lucknow University, Lucknow on 'Science for and with society in dealing with Covid-19'.

Qaumiekta week (Conservation Day) :

Regional Science City, Lucknow organized an online quiz program on 'Conservation of Environment' on 25th November 2020, for school students. About 150 students was witness of the programme.

Poster making contest RSC, Lucknow organised online poster making contest on the topic 'COVID-19: India Fight Back' from April 25 to May 3, 2020. About 1000 students participated in the programme.

World AIDS Day: To commemorate World Aids Day, Regional Science City, Lucknow organized an online quiz contest on 1st December, 2020 on 'Know the Aids'.



National Pollution Control Day

Celebration: On the occasion of National Pollution Control Day, Regional Science City, Lucknow organized an online popular science lecture on the topic 'Pollution and Prevention' on 2nd December 2020, which was delivered by Dr. Rajeev Upadhaya, Former Chief Environmental Officer & Member Secretary, Uttar Pradesh Pollution Control Board, Lucknow.

National Youth Day Celebration

On the occasion of National Youth Day on 12th January 2021, an online popular lecture was organized on the topic 'Youth & Nation' which was delivered by Dr. Arvind, Psychology Department, NJSCB PG College, Lucknow. In this event more than 100 people attended the talk via RSCL you-tube channel

World Cancer Day :

Regional Science City, Lucknow commemorated World Cancer Day on 4th February, 2021. To mark the occasion an online quiz contest on 'Awareness on Cancer Disease' was organized for school students.

Birth Anniversary Celebration of Sir Stephen Hawking :

On the occasion of Birth Anniversary Celebration of Sir Stephen Hawking on 8th January 2021, an online quiz contest on 'Our Universe' was organized for school students. About 70 students participated and answered the various questions through online mode.

National Science Day Celebration:

Regional Science City, Lucknow celebrated National Science Day from 27th- 28th February, 2021. To mark the occasion an online popular science lecture was organized on the topic 'Future of Science, Technology & Innovation (STI): Impacts on Education, Skills and Work' which was delivered by Prof. Puneet Kumar, Physics Department, Lucknow University, Lucknow. In addition to this an online science quiz on 'Everyday Science' and a new science demonstration on 'Fun with Optics' has been launched for students.





National Science Day Celebration:

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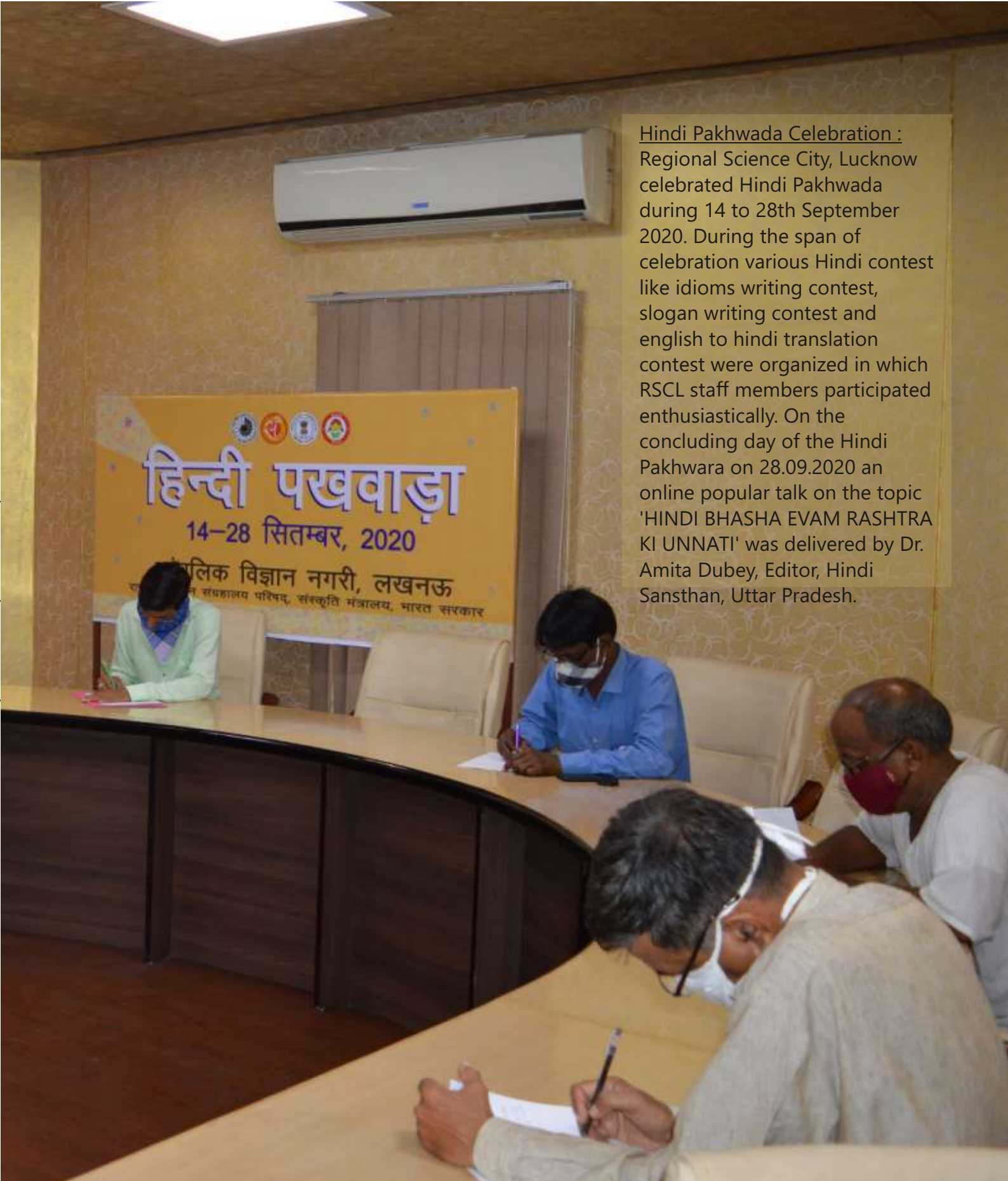
Celebration of International Women's

Day: Regional Science City, Lucknow organized an online pre-recorded popular talk on the topic 'Women Empowerment' on the occasion of International Women's Day on 8th March 2021 for mass awareness among the society

World Forestry Day Celebration :

Regional Science City, Lucknow celebrated World Forestry Day on 21st March, 2021. To mark the occasion an online tree identification program & online video streaming session on medicinal plants: uses & advantages were organized for school children and RSCLfacebook friends. About 110 school students took part in a tree identification programme.

JAN	FEB	MAR
APR	MAY	JUN
JUL	AUG	SEP
OCT	NOV	DEC



Hindi Pakhwada Celebration :
Regional Science City, Lucknow celebrated Hindi Pakhwada during 14 to 28th September 2020. During the span of celebration various Hindi contest like idioms writing contest, slogan writing contest and english to hindi translation contest were organized in which RSCL staff members participated enthusiastically. On the concluding day of the Hindi Pakhwara on 28.09.2020 an online popular talk on the topic 'HINDI BHASHA EVAM RASHTRA KI UNNATI' was delivered by Dr. Amita Dubey, Editor, Hindi Sansthan, Uttar Pradesh.

World Tuberculosis Day:

On the occasion of World Tuberculosis Day, Regional Science City, Lucknow organized a popular science lecture on 'Fight against Tuberculosis' on 24th March, 2021, which was delivered by Prof. Rajendra Prasad, Director Medical Education and Professor & Head, Department of Pulmonary Medicine, Era's Lucknow Medical College and Hospital, Lucknow and Former Director, Vallabhbhai Patel Chest Institute (VPCI), Delhi

Hindi Diwas Celebration :

Hindi Diwas was celebrated at RSCL on 14th September, 2020. To mark the occasion, an essay writing contest on the topic 'DESH KE VIKAS MEN RASHTRA BHASHA HINDI KA YOGDAN' was organized for RSCL staff members. To commemorate this occasion, a message in Hindi received from Director General, National Council of Science Museums which was spread through social media like facebook/ whatsapp/ twitter groups and the same was also circulated and read over before all the staff members of RSCL on 14th September, 2020.

World Water Day

Celebration: Regional Science City, Lucknow celebrated World Water Day on 22nd March, 2021. To mark the occasion an online quiz programme on Water Conservation was organized for school students in which about 450 students participated & simultaneously, a demonstration on water/water rocket show was also organized for general visitors who visited the centre on the day.



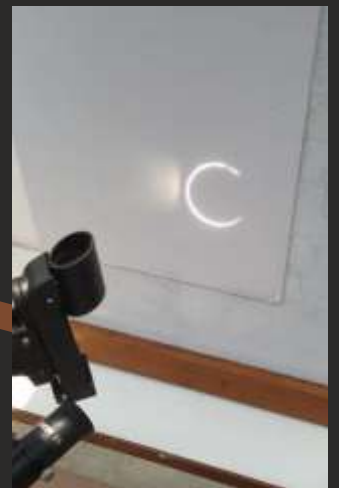
Commemorating of 75 years of Independence: On the occasion of commemoration of 75 years of independence - 'Azadi ka Amrit Mahotsav', Regional Science City, Lucknow organized an online quiz programme on 'India's Independence' on 31st March, 2021 for school students and RSCL facebook friends.

Constitution Day: On the occasion of Constitution Day on 26th November 2020, an online popular lecture was organized on 'Constitution of India' which delivered by Dr. Anurag Kumar Srivastava, Faculty of Law, Lucknow University, Lucknow.

Pledge taking ceremony during vigilance awareness week.







KPSC

KURUKSHETRA



Kurukshetra Panorama & Science Centre (KPSC) developed a digital exhibition comprising of 26 panels on the topic 'Plant Health'. The exhibition portrays the information on protecting plant health.

KPSC developed a Digital Exhibition titled 'The Father of The Nation: A Digital Tribute' depicting life & work of Mahatma Gandhi, inaugurated by Dr. A. R. Chaudhary, Director, Centre of Excellence on Sarasvati River & Chairman, Department of Geology, Kurukshetra University, Kurukshetra on January 25, 2021. He also delivered a lecture on 'Mohan to Mahatma' on this occasion.

KPSC organized virtual tour to Mobile Science Exhibition on 'Energy' for social media viewers during December 2020 to March 2021. Under this initiative, video of an exhibit was posted on the YouTube channel of the centre every Monday. A popular talk on 'Uses & Abuses of Technology' on the occasion of National Technology Day was organised on May 11, 2020.

KPSC organised online lecture on the topic 'Museum for Equality: Diversity and Inclusion' on May 18, 2020 by Dr. Sukhdev Saini, Chairman, AIH Culture & Archaeology, Kurukshetra University, Kurukshetra. A popular lecture on 'Space Systems to launch 100 Satellites' was organised online on June 9, 2020 in collaboration with Wings of Aero-TEMS academy.

KPSC organised an online quiz contest on 'Know Your Heritage' on April 18, 2020 to propagate awareness about conservation of ancient heritage sites of local, National & International importance. KPSC organised various educational activities for school students from October 4 to 10, 2020 on the occasion of World Space Week in association with Wings of Aero, a renowned aerospace company

KPSC organised online summer camps from June 15th to 26th, 2020. Online Teacher's Training Programme was organised from December 9th to 16th, 2020. In-service science teachers participated in this programme.



To mark International Yoga Day, a special yoga training session for boosting Immunity was organised on June 21, 2020.

Sankalp Parv was celebrated from June 28 to July 12, 2020. During the programme various plants like Amla, Banyan, Bel, Peepal and Ashok were planted in the premises of KPSC. Plantation drive was launched on April

KPSC organised a Vigilance Awareness March by using placards written with slogans on eradicating corruption and other such practices to build corruption free India on November 2, 2020. An online poster making contest on 'Satark Bharat, Samridh Bharat' was also organised for school students.





KPSC organised various programmes during 'Swachchta Pakhwada' from September 16 to 30, 2020 including special cleaning drive.



Kurukshetra Panorama & Science Centre uploaded digital content in the Youtube channel on the topics like local Herbal Plants, Mathematics puzzles, Energy, etc. Centre organised an online Workshop on 13th August, 2020 on Tessellations & Fractals. Tessellations and fractals involve the combination of mathematics and Art.

A Popular Science Lecture was delivered on 7th January, 2021 on the topic "Science & Technology: Ancient Heritage" for the college students and teachers by Sh. Jitender Kumar Das, EO, KPSC via Zoom platform in collaboration with D. A. V. College, Ambala. Students & teachers from D. A. V. College (Lahore), Ambala City, Haryana and Govt. Degree College, Zaheerabad, Telangana joined in this programme. College students and Teachers participated in the programme enthusiastically.

KPSC organised observation of Solar Eclipse through it's Face book Live on 21st June, 2020. An online exhibition was inaugurated & uploaded on the web about Solar Eclipse which was also made available for the viewers online on this occasion.

The Kurukshetra Panorama & Science Centre extended it's facility to view the Great Conjunction between Jupiter & Saturn for visitors on 21st December, 2020 when the two planets appeared closer in the sky. This event was telecasted on Facebook live from the Science park of Kurukshetra Panorama & Science Centre. This great conjunction occurs approximately every 20 years when **Jupiter** "overtakes" **Saturn** in its orbit.



Centre participated virtually in the Science Film Festival in collaboration of Goethe-Institut / Max Muller Bhavan, New Delhi on 24th November, 2020. The main objective of the programme is to promote science literacy and facilitates awareness of contemporary scientific, technological and environmental issues through international films with supporting educational activities.

NCSM also arranged an online workshop by renowned science communicator, Mr. Herr Joachim Hecker from Germany on the topic: How to Communicate Science through Online Activities in collaboration with Goethe Institute, Germany for the benefit of the Curators/Education Officers/Education Assistants of NCSM.





w e b i n a r

Centre has organised World Space Week – 2020, online in association with WINGS OF AERO by organising various educational activities for school students from 04th October to 10th October, 2020. These include a number of Webinars related to Space Science and a Space Science Quiz. On 04th October, 2020 a webinar on "A Virtual Tour of International Space Station" was delivered by Prof. Pon Maa Kishan, Professor, Department of aeronautics, Chandigarh University, Chandigarh. On 5th October, 2020 a webinar on the topic "Design & Development of Hybrid HALE - Airship" was delivered by the team of Sh. Shivam Suri, Rajvansh Bhuee Singh, Sh. Yogesh Prajapat, Sh. Gurvir Singh & Sh. Suddhaswatta Chaudhri. On 6th October, 2020 a webinar on the topic "NASA's Aerospace - Open Source Softwares" was delivered by Prof. Pon Maa Kishan. On 7th October, 2020 a webinar on the topic "Future Aerospace Vehicle Design" was delivered by Sh. Jujhar Singh, Sh. Aniket & Sh. Shivam Bandari. On 8th October, 2020 a webinar on the topic "Internship Opportunity for Non - Aerospace Engineers" was delivered again by Prof. Pon Maa Kishan. On 10th October, 2020 an Intermediate Level online Space Science Quiz Contest was organized. A total of Rs. 1,00,000 prize money was kept.

KPSC organised a webinar on the launch of World's largest Water Rocket on August 24, 2020 through social media. In this webinar, design and launching process of world's largest water rocket was described. This water rocket was prepared and launched by Chandigarh University. More than 1000 online visitors participated in this programme. A series of webinars on 'Virtual Tour to International Space Station', 'Design & Development of Hybrid HALE – Airship', 'NASA's Aerospace - Open Source Software', 'Future Aerospace Vehicle Design' and 'Internship Opportunity for Non - Aerospace Engineers' were organised in which resource persons from different organisation participated. Intermediate Level Space Science Quiz Contest was also organised online in which large number of students participated. Online interactive workshops on Gaming Solution, Tessellations and Fractals and Digi Abhyas were also organized

1. GENERAL INFORMATION



Name of the Centre	National Science Centre Delhi	Regional Science City Lucknow	Kurukshetra Panorama & Science Centre, Kurukshetra
Name of Head of Museum/Centre and Designation	Shri D. Rama Sarma Director	Dr. Raj Mehrotra Project co-ordinator	Shri K. Srinivasa Nehru Project co-ordinator
Full Address	Near Gate No.1 Pragati Maidan, Bhairon Road New Delhi -110001	Aliganj Extension Sector-E, Ekta Vihar Lucknow - 226024	Pehowa Road Kurukshetra - 136118 Haryana
S.T.D.	011	0522	01744
Phone Number of Director/PC	2337-1946	2321804, 2327833	251100
EPABX	07428693710 to 17 (8 lines)	2321804	270810
Telefax E-mai	2337-1263 nscdl01@gmail.com	rsclu89@rediffmail.com pcrscl@gmail.co	kpscckkr@gmail.com
Website	nscd.gov.in	rscl.nscd.gov.in	kpsc.nscd.gov.in
Hours of opening	09:30 am to 6:00 pm	9.30 am to 6.00	9.30 am to 6.00
Closed on	Diwali & Holi	Diwali & Holi	Diwali & Holi
Admission Fee			
i General Public	i)Rs.60/- per head	Rs.30/- per head	Rs. 40/- per head
ii Genral Entry (Group more than 25)	ii)Rs.50/- per head	25/- per head	Rs. 35/- per head
iii Genral Entry (BPL Card holder)	iii)Rs.5/- per head	Rs.5/- per head	Rs.5/- per head
i Student group (Pvt. Schools)	i)Rs.25/- per head	Rs.15/- per head	Rs10/- per head
ii Student group (Govt. Schools)	ii)Rs.10/- per head	Rs.5/- per head	Rs.5/- per head

Name of the Centre	National Science Centre Delhi	Regional Science City Lucknow	Kurukshetra Panorama & Science Centre
3-D Film Show			
i) General Public	Rs. 25/- per head	Rs. 20/- per head	Rs. 20/- per head
ii) General Public (in Groups)	Rs. 20/- per head	Rs. 15/- per head	
iii) Student Group (Pvt. Schools)	Rs. 20/- per head	Rs. 15/- per head	Rs. 10/- per head
iv) Student Group (Govt. Schools)	Rs. 20/- per head	Rs. 10/- per head	Rs. 05/- per head
Science on Sphere			
i) General Public	Rs. 30/- per head	----	----
ii) General Public (in Groups)	Rs. 25/- per head	----	----
iii) Student Group (Pvt. Schools)	Rs. 25/- per head	----	----
iv) Student Group (Govt. Schools)	Rs. 20/- per head	----	----
Holo Show			
i) General Public	Rs. 30/- per head	----	----
ii) General Public (in Groups)	Rs. 20/- per head	----	----
iii) Student Group (Pvt. Schools)	Rs. 20/- per head	----	----
iv) Student Group (Govt. Schools)	Rs. 20/- per head	----	----
Fantasy ride			
i) General Public	Rs. 40/- per head		
ii) General Public (in Groups)		----	----
iii) Student Group (Pvt. Schools)	Rs. 30/- per head	----	----
iv) Student Group (Govt. Schools)	Rs. 30/- per head	----	----
SDL			
i) General	Rs. 10/- per head	Rs. 10/- per head	Rs. 10/- per head
ii) Student Group (Pvt. Schools)	Rs. 10/- per head	Rs. 10/- per head	Rs. 10/- per head
iii) Student Group (Govt. Schools)	Rs. 05/- per head	Rs. 10/- per head	Rs. 10/- per head

Space Theatre

General Visitor	–	Rs. 50/- per head	–
Student group	–	Rs. 30/- per head	–
Inaugurated on	January 9 th , 1992	September 7 th , 1989 Upgraded to Regional Science City on 21 st Sept. 2007	March 6 th , 2001
Total floor area in Sq. Mts.	18,773	8186	4000
Staff strength			
Scientific	5	2	1
Technical	56	15	8
Admn.	29	7	6
Total	90	24	15

Financial Data 2020-2021

FY	EXPENDITURE			
	UNIT	GIA-GEN	GIA-SALARY	GIA-CCA
2020-2021	NSCD	346.41	1104.06	39.13
	RSCL	179.16	259.20	43.30
	KPSC	61.87	106.96	10.70
	TOTAL	587.44	1470.22	93.13

FY	HEAD	FUND
2020-2021	GIA-GEN	394.27
	GIA-GEN (SAP)	0.25
	GIA-SALARY	1553.98
	GIA-CCA	93.00

RECEIPTS				
FY	NSCD	RSCL	KPSC	TOTAL
2016-17	265.04	126.02	173.70	564.76
2017-18	328.12	141.33	175.41	644.86
2018-19	314.42	156.40	193.66	664.48
2019-20	337.18	146.65	186.75	670.58
2020-21	200.07	25.75	43.43	269.25

*All figures are in lakhs

VISITORS				
S.No	Visitors	NSCD	RSCL	KPSC
1.	Number of school groups	02	80	42
2.	No.of students in groups	86	4256	1715
3.	No.of general visitors	73523	66454	110903
4.	No.of outreach visitors	–	3000	--
5.	Total no.of visitors	73609	73710	112618

Note: Graphs showing visitors details and comparative data are enclosed at Annexure - I.

EXISTING GALLERIES

Name of the Centre/ Museums	Name of the gallery	Floor area (sq.m.)	Date of first Inauguration	Date of last major renovation	Number of exhibits
National Science Centre, Delhi	Our Science and Heritage Technology	1135	09.01.1992	21.10.2009	99
	Human Biology	757	09.01.2003	--	55
	Uniqueness of Human Life	204	02.06.2008	--	16
	Prehistoric Life	959	08.08.2004	10.11.2020	42
	Fun Science (including 3D, Spark Theater & Science Show)	1007	09.01.1992	19.11.2020 (3D Theater)	79
	Nuclear Power	677	16.01.2016	--	58
	Information Revolution	987	09.01.1992	March 2009	65
	Digital Information Revolution	348	09.01.1992	24.06.2006	41
	Water- The Elixir of Life	200	14.12.2010	-	45
	Energy Ball	122	09.01.1992	-	23
	Innovation Space	200	23.01.2014	-	45 kits
	Biotechnology Lab	110	22.04.2016	-	40
	Science on Sphere	110	07.06.2016	-	01
	Communication Saga	200	09.01.2016	-	-
	Reception Area	316	-	17.03.2014	12
	Temp. Exhibition Gallery	496	-	-	--
	Holo Show	74.4	14.11.2018	—	01
	Fantasy Ride		09.01.2020	—	01

Name of the Centre/ Museums	Name of the gallery	Floor area (sq.m.)	Date of first Inauguration	Date of last major renovation	Number of exhibits
Regional Science City, Lucknow	Fun Science	400	20.05.1995	March, 2005	50
	Fluidics	400	07.09.1989	Sept. 2008	64
	Popular Science	400	07.09.1989	March, 2004	Under Renovation
	Water-Our Life	400	24.12.2012	–	39
	Children Gallery	400	08.06.2001	14.11.2016	32
	Under water Exploration	680	21.09.2007	–	67
	Being Human	410	21.09.2007	–	41
	Biotech. Revolution	207	21.09.2007	–	66
	Aquamobile	130	21.09.2007	2009	01
	Scimax Hall	380	21.09.2007	–	01
	Pre historic life park & Light & Sound Show	4500	15.02.2008	—	41
	Science Park	Open Area	07.09.1989	—	67
	Wonder World of Materials Gallery	400	19.12.2009	—	68
	Innovation Hub	296	04.01.2016	—	—
	Sports & Fitness	373	20.02.2020	—	35
Kurukshetra Panorama Science Centre Kurukshetra	Ground Floor a. Our Heritage	1520.25	06.03.2001	31.03.2013	47
	Ground Floor b. Fun Science		06.03.2001	----	88
	First Floor Mahabharat Panorama	1371.15	06.03.2001	30.04.2018	11
	Science Park	12500	06.03.2001	31.03.2017	38
	Panorama Hall	----	----	----	11
	3D - Theatre	----	----	2015	1
	TV Studio	----	----	2017	1
	Herbal Garden	----	01.03.2019	----	18



3 NEW GALLERIES / MAJOR RENOVATION

NSCD:

Renovation of Pre-historic Life gallery at NSC, Delhi has been done.
Renovation of 3D theatre at NSC, Delhi has been done.

RSCL:

KPSC

4 EXISTING MOBILE SCIENCE EXHIBITS IN THE CENTRE/ MUSEUM

Title of the Unit	Name of the Centre	No. of Exhibits	Year in which unite was developed	Year of major renovation
Science Explorer	NSC Delhi	15	----	---
Understanding Mathematics	RSC, Lucknow	24	2015-16	---
Energy: The Lifeline of Mankind		20	September 2019	---
Energy: Machines in Everyday Life		20	September 2019	---
Understading Mathematics	KPSC, KKR	24	2016	---
Energy		20	2019	---

5 NEW TEMPORARY EXHIBITION

Name of the Centre	Name of the Exhibition/project	No. of Exhibits	Date of Inauguration
NSCD	Nobel Prize 2020	6	—
RSCL	—	—	—
KPSC	—	—	—

6 EXHIBIT DEVELOPMENT

	NSCD	RSCL	KPSC
Gallery exhibits	04	18	48
Duplicate exhibits	29	16	00
Park exhibits	00	02	01
MSE exhibits	00	00	00
Taramandal	00	00	00
Kits/aids	02	20	00
Duplicate kits/aids	00	00	00
Temporary exhibits	33	00	00
Total	68	56	49

Note: List of major exhibits and kits developed during the year is given in Annexure-II

7 PLANNING FOR THE YEAR 2020-2021

NSCD

Sl. No.	Name off the Scheme
1	Sub-Regional Science Centre, Palampur, H.P. is complete and ready for inauguration.
2	Setting up of Sub-Regional Science Centre at Almora, Uttarakhand is progressing well. The project is likely to be completed by December 2021.
3	Setting up of Sub-Regional Science Centre at Ambala, Haryana, named as Aryabhatta Vigyan Kendra, Ambala
4	Providing help in form of exhibits and facilities for setting up of Science Learning & Creative Centre, Shimla on receiving a request from Himachal Pradesh Council for Science Technology and Environment (HIMCOSTE), Shimla .
5	The setting up of a 50-Seater Digital Planetarium by NSC, Delhi, on behalf of NCSM on request by HIMCOSTE, HP

RSCL

KPSC

8 MOBILE SCIENCE EXHIBITION PROGRAMMES

	NSCD	RSCL	KPSC
No. of exhibition sites	No MSE was held due to COVID-19 pandemic.	2	No MSE was held due to COVID-19 pandemic.
No. of exhibition days		3	
No. of film shows		00	
No. of visitors to exhibition		3000	
No. of visitors in film shows		00	
Distance traveled (in Kms)		15	

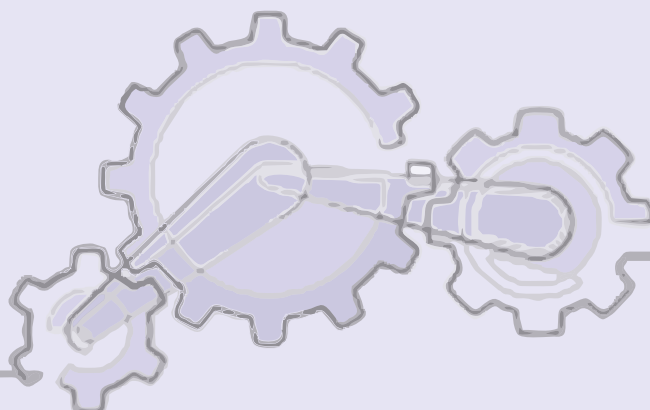


9 SCIENCE EDUCATION ACTIVITIES

A. Science Demonstration Lectures (SDL)

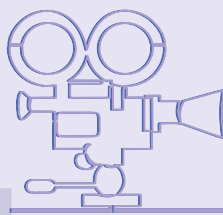
Science Demonstration Lectures are conducted for providing an exposure to the public on the effectiveness of use of simple experimental demonstrations to understand scientific process. The demonstration is interactive learning through the process of raising questions, making observations, logical reasoning and arriving at inferences to postulates of basic scientific principles.

Name of the Centre	Name of the SDL unit	No. of Lectures Held in Centre	No. of Students Attended	No. of Lectures Held outside	No. of Students Attended
NSCD	1. Liquid Nitrogen 2. Unexpected Science 3. Sound 4. Human Torso 5. Fun with Physics 6. Air Pressure 7. Static Electricity 8. Size & Distance in Astronomy	137	3471	----	----
RSC Lucknow	1. Super Cooled Show 2. Air Pressure 3. Sound 4. Chemical Demonstration 5. Our Body 6. Light 7. Unexpected Science	71	2660	1	1500
KPSC Kurukshetra	1. Know Your Body 2. Fantastic Chemistry	10	508	----	----



B. ENVIRONMENT AWARENESS PROGRAMMES

Name of the Centre	Name of the Programme	Date of the programme	No. of Participants
NSC Delhi	Time for Nature	5 June, 2020	128
	Nanda Devi Glacier Burst: Causes & Concerns	18 February, 2021	215
	Plant Health and Social Wellbeing'	10 November, 2020	100
	Earth Day	22 April, 2020	145
	World Ozone Day	16 September,2020	56
	Sankalp Parva-2020	6-9 July, 2020	205
	Wildlife Week	2-8 October, 2020	32
RSC Lucknow	Environment Day	4-5 June 2020	145
	Ground water week	16-22 July 2020	289
	International Ozone conservation Day	16 September 2020	432
	National Pollution Control Day	2 December 2020	126
	Wildlife Week celebration	7 October 2020	30
	World Forestry Day Celebration	21 March 2020	126
KPSC	World Environment Day	5 June 2020	27
	Sankalp Parva	28 June-12 July 2020	28



C . SCIENCE FILM SHOW

Name of the Centre	Date/Duration	Title/Theme	No. of Shows	No. of Total Visitors
NSC,Delhi	----	----	----	----
RSC,Lucknow	----	----	----	----
KPSC,KKR	----	----	----	----

D. POPULAR SCIENCE LECTURES

Name of the Centre	No. of Lectures	No. of Audience
NSC,Delhi	9	712
RSC,Lucknow	21	1878
KPSC,KKR	14	1368

Note: List is given in Annexure – III

E. TARAMANDAL SHOWS

Taramandal is a portable mini planetarium with an inflatable dome and simple projection equipment providing an opportunity to promote interactive learning of elementary astronomy. It could also serve the purpose of an improvised dark room for conducting scientific experiments requiring dark room facilities.

Name of the Centre	Number of Shows held	Number of Audience
NSC, Delhi	00	00
RSC, Lucknow	00	00
KPSC, Kurukshetra	00	00

F. SKY OBSERVATION

Name of the Centre	No. of Programmes held	No. of Participants
NSC, Delhi	02	152
RSC, Lucknow	02	250
KPSC, Kurukshetra	0 (Due to Covid outbreak)	0

G. SCIENCE ON SPHERE

Name of the Centre	Number of Shows held	Number of Audience
NSC, Delhi	251	5567
RSC, Lucknow	00	00
KPSC, Kurukshetra	00	00

H. SCIENCE QUIZZES

Name of the Centre	No. of Quizzes held	No. of Participants	No. of Audience
NSC, Delhi	04	512	00
RSC, Lucknow	12	2420	00
KPSC, Kurukshetra	03	1139	00

I. FANTASY RIDE

Name of the Centre	Number of Shows held	Number of Audience
NSC, Delhi	1399	9503
RSC, Lucknow	00	00
KPSC, Kurukshetra	00	00

J. HOLO SHOW

Name of the Centre	Number of Shows held	Number of Audience
NSC, Delhi	185	3331
RSC, Lucknow	00	00
KPSC, Kurukshetra	00	00

K. 3D THEATRE SHOW

Name of the Centre	No. of Shows	No. of Audience
NSC, Delhi	310	7032
RSC, Lucknow	956	16798
KPSC, Kurukshetra	--	--



10 VIDEO/COMPUTER SOFTWARE/ MULTIMEDIA SOFTWARE DEVELOPED

NSCD

Name of the Exhibit	Formet	Duration
Cyclone and Tornado Preparedness	Multimedia	User interactive
Flood Preparedness	Multimedia	User interactive
Landslide & Avalanche Preparedness	Multimedia	User interactive
Earthquake Preparedness	Multimedia	User interactive
Tsunami Preparedness	Multimedia	User interactive
Volcano Preparedness	Multimedia	User interactive
Medicinal Plants	Multimedia	User interactive
Multi-view Universe	Switch operated multimedia	User interactive
What stuff is universe	Switch operated multimedia	User interactive
Astronomical calendar	Switch operated multimedia	User interactive
Continental Drift	Switch operated multimedia	User interactive
World Hazard Profile	Dual Projection Based Multimedia	User interactive
Disaster Quiz	Switch operated computer based Unmanned Quiz interface	User interactive
Significant Earthquakes in Himalayan Region (6 videos)	Videos for Visual seeker exhibit	23:45 minutes
Thunder strike Hologram	Video	52 seconds
Landslide	Video	01:06 minutes
International Museum Day 2020	Video	1:08:05 hrs.
World Environment Day 2020	Video	1:06:42 hrs.
World Environment Day 2020 Keynote	Video	28:11 minutes
Natural Disasters	Video	15:32 minutes

RSCL

KPSC



11 CREATIVE ABILITY

A. Vacation Hobby Camps

Name of the Centre	Number of Camps held	Number of Projects Completed	Number of Participants
NSC, Delhi	05	35	91
RSC, Lucknow	06	13	42
KPSC, Kurukshetra	02	75	15

B. SCIENCE FAIR

Name of the Centre	Date & Duration	Name of the Science Fair	No. of Schools Participated	No. of Students /participants	No. of Projects
NSC, Delhi	0 Due to Covid outbreak	----	----	----	----
RSC, Lucknow	0 Due to Covid outbreak	----	----	----	----
KPSC, Kurukshetra	0 Due to Covid outbreak	----	----	----	----

C. DATE, DURATION & STREAMS OF VACATION HOBBY CAMPS

Name & Venue of programme	Date/Duration	Streams/Subjects	No. of Participants	No. of projects
NSC, Delhi	8 to 12 June, 2020	Scientific Toy Making Astro Lab	41	23
	8 to 23 December, 2020	Biotechnology Astronomy, Robotics	50	12
Regional Science City, Lucknow	8 to 14 July, 2020	Play with Electronics Fun with Chemistry	42	13
	12 to 18 August 2020	Robotics & 3d Modeling Play With Electronics Hands On Arduino		
KPSC, Kurukshetra	15 to 26 June 2020	Scientific Toy Making and Exploring Nature	15	75

12 CONFERENCES, TRAINING/WORKSHOPS & OLYMPIADS

A. Teachers' Training Programmes (TTP)

Teachers' Training Programme envisages providing an opportunity and exposure to school teachers in handling of simple tools, raw materials and also introduces techniques as well as ideas for developing low cost teaching-aids with ultimate goal of 'build your own laboratory'. Specially designed TTP was organised for the school teachers of various schools of Delhi and adjoining areas at National Science Centre, Delhi. Regional Science City Lucknow and KPSC, Kurukshetra also conducted TTP for the teachers.

Venue of Programme	Number of programme	No. of Teachers Trained	No. of Teaching Aids /Kits Developed
NSC, Delhi	05	289	309
Regional Science City Lucknow	03	60	110
KPSC, Kurukshetra	06	38	228

b) Robotics boot camps/Computer Training Programmes

Name of the Centre	Number of programme	Duration	No. of Participants	Subjects
NSC, Delhi	0 Due to Covid outbreak	--	--	--
Regional Science City Lucknow	0 Due to Covid outbreak	--	--	--
KPSC Kurukshetra	2	--	14	--

C. CONFERENCES, TRAINING/WORKSHOPS & OLYMPIADS

National Science Centre, Delhi

The Centre organized online workshop on 'Protect Yourself-Health & Hygiene' on September 10, 2020. During the workshop participants learnt about the hygiene practices to stay healthy. They also understood the importance of cleanliness to prevent diseases. In this workshop participants made hand sanitizer using alcohol and household materials. Total 49 students from various schools participated in this workshop.

An online workshop on 'App development' was organised from May 26 to 29, 2020 in which 41 students participated. These student were given training to develop their own Apps during the workshop using MIT platform. This workshop was organised in collaboration with Learning Link Foundation. E-Workshop on 'Artificial Intelligence' was organised from June 1 to 5, 2020 in which 45 students participated. The students learnt basic study of Artificial Intelligence and its applications in day to day life during the workshop. E-Workshop on 'Digi Abhyas' was organised on June 3, 2020 to focus on maintaining a balanced approach between human life and fast changing technologies. 52 teachers participated in this workshop. An online orientation workshop on 'Gaming for Education' was also organised in which 104 teachers participated and learnt how to use gaming platforms for education. Another E-Workshop on Artificial Intelligence (Advance Level) was organised from June 22 to 26, 2020 in which 42 students participated. These E-Workshops were organised in collaboration with Learning Link Foundation. An online workshop on 'Electronics & IoT (Internet of Things)' was organised on 8th -9th August and August 22 & 23, 2020. During this workshop, students learnt the benefit of IoT for using to work remotely with controlling and managing an entire production line with just a tablet and an internet connection. 19 students from various schools participated in this workshop.

Tool Operation Workshop for Innovation Space members was organised on December 30 & 31, 2020. The objective of the workshop was to acquaint the members with the operation of different mechanical, electrical and electronics tools. Participating members were retrained in during the workshop..

National Science Centre, Delhi organised online session on 'Isolation of DNA' at home on August 5, 2020. During the session, students learnt the properties of cell and DNA. They also learnt how to extract DNA at home by using household material. 14 students from various schools of Delhi & NCR participated in this session. During an online session on 'Tessellations in Art and Architecture' on August 7, 2020, students drew beautiful tessellation patterns. 19 students from various schools participated in this session.

An online workshop on 'Scientific Toy Making' was organised on January 12, 2021. The workshop was attended by school students on Google meet. Students developed various scientific toys like Cartesian Diver, Vortex etc. during the workshop. Students learnt various scientific principles while developing these toys.

Wildlife Week is annually celebrated across India between October 2 to 8, with an aim to protect and preserve the flora and fauna of India. Wildlife Week 2020 was celebrated under the theme RoaR (Roar and Revive) – Exploring Human-Animal Relationships. To sensitise the masses with the importance of wildlife, the Centre organised online workshop on 'Classification in Wildlife' on October 6, 2020 and an online quiz next day. Students learnt about taxonomy and evolutionary impacts on different species during the workshop.

During an online Teacher's Training Programme September 8, 2020, a group of pre-service teachers learnt to develop & use low cost teaching aid to supplement their classroom teaching. Another online TTP for DIET students was organised on October 13, 2020. An online training programme on 'The Science around us' was organised for in-service teachers on October 15 & 16, 2020. The participants learnt various ways to develop interactive science activities for classroom teaching.

RSC, LUCKNOW

Online Origami workshop on 26th August 2020

Regional Science City Lucknow organised an online origami workshop for primary students along with their parents and teachers on 26th August 2020 at 4:00 p.m. During the workshop various paper model fabrications had been demonstrated. During the programme children learnt the method of making Boomerang, Propeller, and Penguin and Cube etc. In the workshop more than 800 students registered and approx 100 students actively participated with their parents.

Workshop on Sensors and Its Applications: (29th Oct. 2020)

2-Days workshop on Sensors and Its Applications is being organised from 29th October to 1st Nov. 2020 for school students and Innovation hub members by Innovation Hub, Regional Science City Lucknow. In this session they were given brief introduction on Sensors, their types and wide range applications in various fields.

Online workshop on Vedic Mathematics (28th July 2020)

An online workshop on Vedic Mathematics was organized by Regional Science City, Lucknow on 28th July 2020 at 04:00 PM for students from class VI to XII. During the programme Dr. Komal Asrani, Vedic Mathematics Trainer, Professor & Head, Department of Information Technology, Babu Banarsi Das College, Lucknow was present as a subject expert. Dr. Asrani told about the utilities of Vedic Mathematics and presented the sutras, methods & applications used in fast calculations of multiplications, divisions, integration and differentiations. She also told that how Vedic Mathematics can help the student in various competitions in the future. In the programme more than 300 students were registered and 78 were actively participated in the online workshop.

Online Session on “Aroma Oils Extraction for Herbal Sanitizer” (01st July, 2020)

An online session on “Aroma Oils Extraction for Herbal Sanitizer” was organised on 1st July, 2020 for Innovation Hub members and their families. In this session, the live demonstrations were given the participants to make Herbal Sanitizer and simple technique to extraction aroma oil for preparation of Herbal Sanitizer at Home. In this session 20 Participants were participated actively.

Online session on Hydroponics: Growing Vegetable without Soil (29th July, 2020)

An online session on Hydroponics: Growing Vegetable without Soil was organised on 29th July, 2020 for general public, students & Innovation Hub members. In this session the participants were given live demonstration for technique to grow plants & vegetables without soil that is known as Hydroponics. In this session, 64 Participants were participated actively.

Workshop on Scientific Toy Making (29th -30th December, 2020)

Regional Science City, Lucknow organised an online Workshop on Scientific Toy Making for students from 29th to 30th December, 2020. During the workshop various model fabrications had been demonstrated. During the programme students learnt the method of making Periscope, simple Camera, Human Lungs and astrolab etc. In the workshop 10 students registered.

Workshop on 'Creative Science' (24th February, 2021)

Regional Science City, Lucknow organized an online workshop on Creative Science for students on 24th February 2021. During the workshop various model fabrications had been demonstrated. During the programme students learnt the method of making of kaleidoscope, simple camera, human lungs and balancing toys etc. More than 20 students took part in this online workshop.

Workshop on Hands on Arduino IDE (15th March, 2021):

A workshop on Hands on Arduino IDE was organised on 15th March, 2021 for the innovation hub member and school students. In this session, students from 8th to 9th standard were introduced to microcontroller (Arduino) and its application in various fields. During this session they were also introduced to integrated development environment (IDE) programming using Arduino. In this session, 26 participants participated enthusiastically.

KPSC, KURUKSHETRA

Centre has organised four interactive oneday Teachers Training Programme for Pre / In - service teachers on 9th & 16th December, 2020 & 9th March, 2021. They were given a guided interactive session on how to develop curriculum based educational kits. Teachers were guided on how the conventional classroom teaching can be made interactive & interesting by an in-formal mode of teaching.

On 8th August, 2020 KPSC in collaboration with Learning Links Foundation, New Delhi organised Gaming Solution Programme on Digital wellbeing for students. The online, open source portal <https://planetcode.in> was put to impact the student community from grade 6 onwards and to raise the awareness for developing programming skills.

Centre was also organised an online Workshop on 13th August, 2020 on Tessellations & Fractals. Tessellations and fractals are formed when we put mathematics into an Art form. For conducting this workshop, literature study was done about the formation of Tessellations and fractals. We have used the Adobe Capture Application to create different tessellation patterns.

An online programme, Digi Abhyas was organised to raise awareness about the development of programming skills. This three hour workshop was organised specially for School Teachers on 21st August, 2020 and 14 teachers were participated.

The Centre organised Hindi Pakhwara from 14th to 28th September 2020. During the period various contests like **हिन्दी टिप्पणी लेखन** (Hindi Tippani Lekhan Contest) **एवं हिन्दी निबन्ध लेखन प्रतियोगिता** (Hindi Nibandh Lekhan Contest) etc. were organised for the staff members of Kurukshetra Panorama & Science Centre. A workshop was also conducted about use of Unicode and Google docs. The objective is to encourage the use of Hindi Language in their day-to-day works.

Centre also celebrated International Day of Yoga on 21st June 2020 as per the guidelines from the Aayush Ministry. On this occasion, staff members practiced Yoga at their respective homes at 07.00 am.

13 COMMUNITY PROGRAMMES

NSC, Delhi

During Sankalp Parva-2020 from July 6 to 9, 2020, a plantation drive was initiated and saplings of Peepal, Amla and Ashok trees were planted at the premises of NSCD. In addition, online sit & draw contest, debate contest, interactive online sessions and quizzes were organised during the period. Large number of students participated in the programme.

National Science Centre organised online Yoga abhyas session for officers and staff members on June 21, 2020 on the occasion of International Day of Yoga. A demonstration video was developed for performing the Yoga Asanas. This video was uploaded on the Centre's official YouTube Channel. Almost all staff members performed the Yoga Asana and practiced yoga at home.

The Centre organized a series of programmes for staff members to encourage the use of Hindi

language in official communication as well in daily routine work. Extempore talk, Quiz contest, Essay writing contest, Dictation writing contest, Hindi Typing contest, Hindi Translation contest & note/proposal making contest in Hindi was organized from September 14 to 30, 2020 during Hindi Diwas Pakhwada. Most of the staff participated in these programmes. In addition, online Rajbhasha Karayshalas were organised on September 21, December 23, 2020 & March 31, 2021.

Online lecture and painting contest was organised on the occasion of Vigilance Awareness Week in November 2020. Prof. M. A. Sikandar, MANUU, Hyderabad delivered the lecture on 'Satark Bharat, Samridh Bharat'. The lecture was attended by the staff members of NCSM Northern Zone Units. The painting contest was organised for school children and winners were awarded e-certificates.

RSC, Lucknow

International Yoga Day:

To mark International Yoga Day Regional Science City, Lucknow organized a special Yoga training programme for boosting Immunity on 21st June 2020 since 6:00 AM onwards through live streaming at RSC's YouTube channel. The Yoga training was conducted by the Smt. Sangita Shukla, Member, Art of living, Lucknow. She started the camp with explanation on the word 'Yoga' and told this as Matra to boost the immunity against infectious diseases. Live Demonstration on different Yoga asanas were performed and the staff members of RSC joined on Centre's YouTube channel.

Vigilance Awareness Programme:

In order to make the mission of a corruption free India successful, Regional Science City, Lucknow organized online educational programme on the occasion of Vigilance Awareness Week celebration on November 2, 2020. An online popular lecture was organized on the issue of eradication of corruption which was delivered by Shri P.V. Rama Shastri, IPS, Director General, Uttar Pradesh Police & Director, Headquarters Vigilance Department, Lucknow, in a

very interesting manner. On this occasion an integrity pledge/oath-taking programme was also organized for making corruption-free India in premises of centre with social distancing in which all employees of the center took the oath of neither do corruption nor ignoring the corruption. This year's the theme of vigilance awareness week celebration was 'Satark Bharat - Samadhi Bharat'.

Qaumi Ekta Week (Conservation Day): To commemorate the 'Qaumi Ekta Week' on 25th November 2020, Regional Science City, Lucknow organized an online quiz program on 'Conservation of Environment' for school students. About 150 visitors were witnesses of the programme.

Swachhta Pakhwada Celebration:

Regional Science City, Lucknow 'Swachhta Pakhwada' from 16th to 30th September, 2020. During this period various programmes and activities were organized including special cleaning drive at various locations of the center like an online workshop on 'Hand Washing & Sanitation' and tree plantation programme etc.

Kurukshetra Panorama & Science Centre also celebrated **International Day of Yoga on 21st June 2020** as per the directions from the Aayush Ministry. On this occasion, staff members of the Centre practiced Yoga at their homes due to COVID-19 outbreak.

The Centre organised **Swachh Bharat Pakhwara (Cleanliness Drive Fortnight) from 16th to 30th September, 2020** with the help of staff members and

school students. Cleanliness Pledge was taken by Officials of Kurukshetra Panorama & Science Centre, Kurukshetra at the main gate of the centre. Cleanliness March was taken up in the premises of the centre. An online **Sit & Draw Contest** was also held at KPSC. In this contest around 150 students of class 6th to 10th from different schools were participated and they draw paintings on the topic "Clean India-Our Society".



14 SCIENCE DRAMA/ PUPPETRY/ OTHER FORMS OF PERFORMING ART

Name of the Centre	Venue of programme	Description of Media	No. of teams Participated	No. of players Performed	No. of Audience
NSC, Delhi	NSCD	0 (Due to Covid outbreak)	00	00	00
Regional Science City, Lucknow	RSCL	0 (Due to Covid outbreak)	00	00	00
KPSC, Kurukshetra	KPSC	0 (Due to Covid outbreak)	00	00	00

15 COMMEMORATIVE EVENTS

Name of the Centre	Name of the Events	Number of Programmes	Number of Participants
NSC, Delhi	International Museum Day	1	67
	Constitution Day	4	107
	Gandhi Jayanti	4	73
	National Technology Day	2	85
	National Science Day	4	23
	International Women's Day	1	150
RSC, Lucknow	National Technology Day	1	171
	International Museum Day	2	610
	National Sports Day Celebration	1	87
	International Science Centre & Science Museum Day	2	830
	Birth Anniversary Celebration of Sir Stephen Hawking	1	387
	National Youth Day Celebration	1	85
	National Science Day Celebration	3	730
	World Water Day	2	255
KPSC, Kurukshetra	World Heritage Day	2	102
	Earth Day	2	113
	National Technology Day	2	67
	International Museum Day	2	119
	World Environment Day	3	121
	International Day of Yoga	1	40
	Swachh Bharat Pakhwara	3	150
	Birth Anniversary of Mahatma Gandhi	3	124
	International Science Centre & Science Museum Day	3	167
	National Science Day	2	174

16 TEMPORARY EXHIBITIONS

Name of the Centre	Title of the Exhibits	Date/Duration	No. of Visuals/Panels	No. of Working Animated Exhibits
NSC, Delhi	0	--	--	--
RSC, Lucknow	(Due to Covid outbreak)	--	--	--
KPSC, Kurukshetra		--	--	--

17 COLLABORATIVE PROGRAMMES

NSC, Delhi

Sl. No.	Name of Collaborative Agency	Programme	Date of programme
1.	Learning Links Foundation, New Delhi	App Development Workshop	May 20-29, 2020
		E-Workshop on Artificial Intelligence	June 01-05, 2020
		Workshop on Digi Abhyas	June 03, 2020
		Orientation workshop on Gaming for Education	June 19, 2020
		E-Workshop on Artificial Intelligence (Advance Level)	June 22-26, 2020
2.	Design Innovation Center Delhi University	Online Workshop on Electronics & IOT	August 08- 09, 2020 & August 22- 23, 2020
3.	Learning Links Foundation, New Delhi	Online Workshop on Gaming: Learning with fun	August 18- 21, 2020

RSC Lucknow

Sl. No.	Name of Collaborative Agency	Programme	Date of programme
	–	–	–

KPSC, Kurukshetra

Sl. No.	Name of Collaborative Agency	Programme	Date of programme
1.	Learning Links Foundation New Delhi	Gaming Solution Programme	August 08, 2020
2.	Learning Links Foundation, New Delhi	Digi Abhyas Programme	August 21, 2020
3.	Chandigarh University	Webinar on the launch of World's largest Water rocket	August 24, 2020
4.	WINGS OF AERO	World Space Week	October 04--10, 2020
5.	Goethe-Institut/ Max Muller Bhavan, New Delhi	Science Film Show Festival	November 24, 2020

18 LIBRARY & INFORMATION

Name of The Centre	Item	Total holding as on 31 st March Previous year	No. Acquired during current year	Net holding as on 31 st March of current year
NSC, Delhi	Books	7042	02	7044
	Journals	1288	–	1288
	Audio /Visual (CD-ROM /DVD/Blue-Ray etc.)	--	--	--
	Audio Disc	--	--	--
	Video Disc	--	--	--
	Misc. Disc	--	--	--
RSC, Lucknow	Books	2282	--	2282
	Journals	03	--	03
	Audio Disc	07	--	07
	Misc. Disc	75	--	75
	Video Disc	149	--	149
KPSC, Kurukshetra	Books	1222	–	1222
	Video Cds	257	–	257

19 PUBLICATIONS OF THE MUSEUM/CENTRE

LIST OF PUBLICATIONS FROM THE MUSEUM/CENTRE

Name of The Centre	Name of the Publication	Process	Number Printed	Expenditure Incurred (Rs.)
NSC, Delhi	E –Sankshepika (online hindi quarterly newsletter)	Digital Print	0	0
RSC, Lucknow	0	0	0	0
KPSC, Kurukshetra	0	0	0	0

20 CONSTRUCTION

NSC, Delhi

S. No.	Name of the Work	Date of start	Date of completion	Amount (in Rs.)
1.	Up-gradation of sitting arrangement with Autoclave Aerated Concrete blocks steps and flooring for 3 D hall at 2nd floor of National Science, Centre, Delhi	19.11.2020	02.12.2020	Rs 1,40,114/-
2.	Construction of 2 nos. of Septic Tanks and Soak pits at National Science Centre, Delhi	25.11.2020	24.01.2021	Rs 3,38,554/-

RSC, Lucknow

S. No.	Name of the Work	Date of start	Date of completion	Amount (in Rs.)
	Upgradation of visitor's toilet and Cafeteria at Regional Science City, Lucknow (U.P)	29.09.2020	Spilled over in FY 2021-22	Rs 24,84,388/-*

KPSC, Kurukshetra

S. No.	Name of the Work	Date of start	Date of completion	Amount (in Rs.)
1.	Boring / drilling/ development of borewell of required depth with providing and installation of Submersible Pumps at Kurushetra panaroma and Science Centre (KPSC), Kurushetra, Haryana	13.11.2020	08.01.2021	Rs 4,88,900/-

	Sl.No	Name of the Equipment	Date of Procurement	Cost in Rupees (including GST)
NSC Delhi	1	Puwerizal Machine PV-6 Ultra Low Volume Fogger Machine	06.05.2020	38,350.00
	2	Thermal Scanner Dr. Trust	11.05.2020	7,500.00
	3	Stepper Motor	19.06.2020	8,496.00
	4	Go Pro 360 Max Camera	01.07.2020	43,925.00
	5	Epson Ultra Short Throw Projector	20.08.2020	2,51,520.00
	6	HP Scan Jet Pro 3500 FI	20.08.2020	41,300.00
	7	Intel NUC PC	20.08.2020	1,22,720.00
	8	Xenon Flash Stroboscope	28.08.2020	22,892.00
	9	3KVA Online UPS System	28.08.2020	24,780.00
	10	Monitor 24" Touch TFT Dell	02.09.2020	62,360.00
	11	Power Supply 15A	02.09.2020	6,499.00
	12	8 button switch operated Media Player	08.12.2020	30,680.00
	13	Dell Monitor 22"	07.01.2021	29,500.00
	14	View Sonic Projector	09.02.2021	1,97,500.00
	15	3D Printer	09.02.2021	3,49,280.00
	16	Monitor LG 24"	12.02.2021	13,945.00
	17	JBL Sound Bar Black	30.03.2021	58,882.00
	18	Desktop Dell Vostro 3681	31.03.2021	1,92,104.00
	19	Monochrome Laser Printer Brother	31.03.2021	89,453.44
	20	Color Laser Printer Brother	31.03.2021	33,044.72
RSC, Lucknow	1	Electric Fog Machine	14.01.2021	17,250.00
KPSC, Kurukshetra	1.	Stroboscope	01.10.2020	9,558.00
	2.	SITC of IPIR CC TV Surveillance System	15.02.2021	2,36,700.00
	3.	Desktop computer with 24" TFT	22.02.2021	1,07,380.00
	4.	LED Fixture 34wt 2"x2"	23.02.2021	2,13,606.00

22 PERSONNEL

A. NEW APPOINTMENT (REGULAR/DEPUTATION/ADHOC)

S.No	Name of the Centre	Name of Personnel	Designation	Date of Joining
1.	NSC, Delhi	-- Nil --		
2.	RSC, Lucknow	-- Nil --		
3.	KPSC, KKR	-- Nil --		
4.	PSC, Palampur	1.Shri Vikash Sangwan 2.Shri Mahesh 3.Shri Debasis Das 4.Shri Amitesh Verma	Office Assistant, Gr-III Technician 'A' (Fitter) Technician 'A' (Carpenter) Education Assistant 'A'	03-06-2020 22-06-2020 23-06-2020 23-06-2020

B PROMOTION

Name of the Centre	S. No	Full Name of Personnel	Designation prior to Promotion	Designation after Promotion	Effective date of promotion
NSC Delhi	1.	Sh. Vinay Kumar	Education Asstt. 'B'	Education Officer 'A'	06-10-2020
	2.	Sh. Sushil Kumar Sah	Tech. Assistant 'B'	Technical Officer 'A'	06-10-2020
	3.	Sh. Darshan Chauhan	Library Assistant 'B'	Library Officer 'A'	06-10-2020
	4.	Smt. Chhaya P. Gupta	Artist 'E'	Artist 'F'	06-10-2020
	5.	Sh. N.R. Iyer	Curator 'F'	Curator 'G'	10-11-2020
	6.	Sh. Jagdish Kumar	Technician 'F'	Technician 'G'	26-03-2021
	7.	Sh. Santosh Kumar	Technician 'F'	Technician 'G'	26-03-2021
	8.	Sh. Hem Raj	Technician 'E'	Technician 'F'	26-03-2021
RSC, Lucknow	1.	Dr. Raj Mehrotra	Curator 'E' & & Project Coordinator	Curator 'F' & Project Coordinator	10-11-2020
	2.	Sh. Nand Kishor Yadav	Office Assistant, Gr-III	Office Assistant, Gr.-II	01-12-2020
KPSC, Kurukshetra	1.	Sh. Bimal Prakash	Technician 'B'	Technician 'C'	06-10-2020
SRSC, Palampur	1.	Sh. Ram Swaroop	Curator 'C' & & Project Coordinator	Curator 'D' & Project Coordinator	02-09-2020

Retirement



C. Transfers

Name of the Centre	Name of Personnel	Designation	Transferred From	To	Date of Joining
NSC, Delhi	1. Sh. Swarup Mondal	Curator 'C'	NSCD	RSCL	22-07-2020
	2. Sh. S. Thiruselvam	Technician 'F'	NSCD	RSCT	30-09-2020
RSC Lucknow	1. Sh. Soumen Ghosh	Curator 'C'	RSCL	RSCB	15-06-2020
	2. Sh. Om Prakash Chakraworthy	O.A., Gr.-I	RSCL	VITM	18-11-2020
	3. Sh. Aditya P Sinha	Technician 'B'	Science city Kolkata	RSCL	22-03-2021
	4. Sh. Shivendra P Singh	Technician 'B'	RSC Digha	RSCL	08-06-2020
KPSC KKR	– NIL--				

D. Retirement/ Repatriation/Resignation

S. No	Name of Personnel	Designation	Name of Centre	Date of Retirement/ release	Remarks mention retirement/ repatriation
1.	Sh. Prem Singh	Driver (Spl. Gr.)	NSC, Delhi	30-04-2020	Retirement
2.	Sh. Kamaljeet Singh	Technician 'G' (Carpenter)	NSC, Delhi	31-08-2020	Retirement
3.	Sh. Shishpal Singh	Technician 'G' (Carpenter)	NSC, Delhi	31-10-2020	Retirement
4.	Sh. Abhay Kishan	Technician 'G' (Electrical)	RSC, Lucknow	31-03-2021	Retirement

E. Foreign Deputations

1.	NSC, Delhi	– NIL--
2.	RSC, Lucknow	
3.	KPSC ,Kukshetra	

23 Distinguished visitors

1.	NSC, Delhi	– NIL--
2.	RSC, Lucknow	
3.	KPSC, Kukshetra	

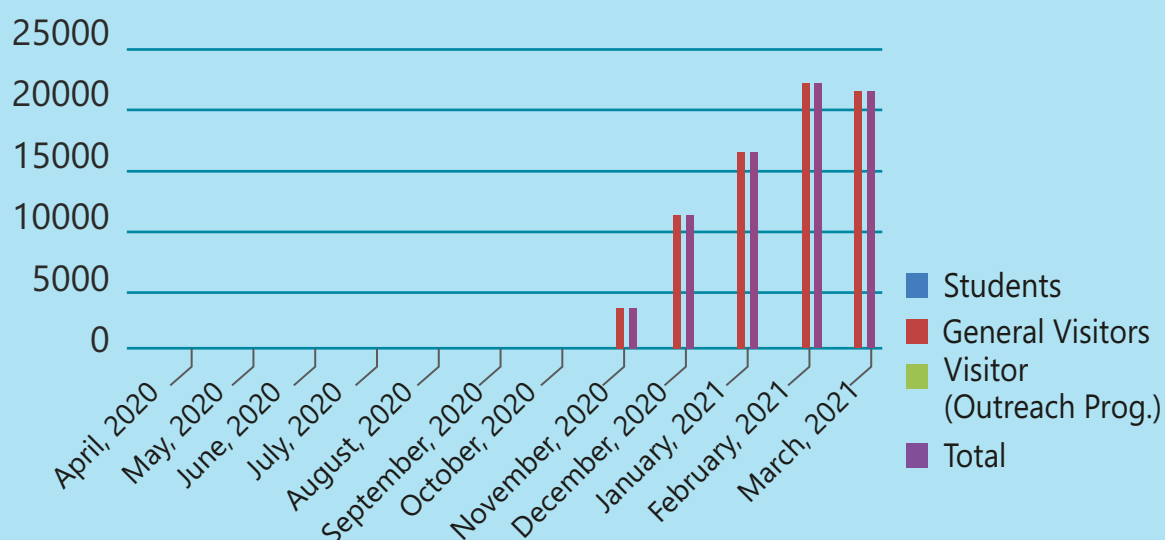
VISITORS STATISTICS (YEAR 2019- 2020)

Annexure –I

A. National Science Centre, Delhi

Months	Students	General Visitors	Visitor (Outreach Prog.)	Total
April, 2020	0	0	0	0
May, 2020	0	0	0	0
June, 2020	0	0	0	0
July, 2020	0	0	0	0
August, 2020	0	0	0	0
September, 2020	0	0	0	0
October, 2020	0	0	0	0
November, 2020	0	3494	0	3494
December, 2020	0	10579	0	10579
January, 2021		16701	0	16701
February, 2021	41	21602	0	21643
March, 2021	45	21147	0	21192
Total	86	73523	0	73609

B. National Science Centre, Delhi (on site)



Visitor's Profile in the last five years at NSC, Delhi (Excluding Outreach Visitors)

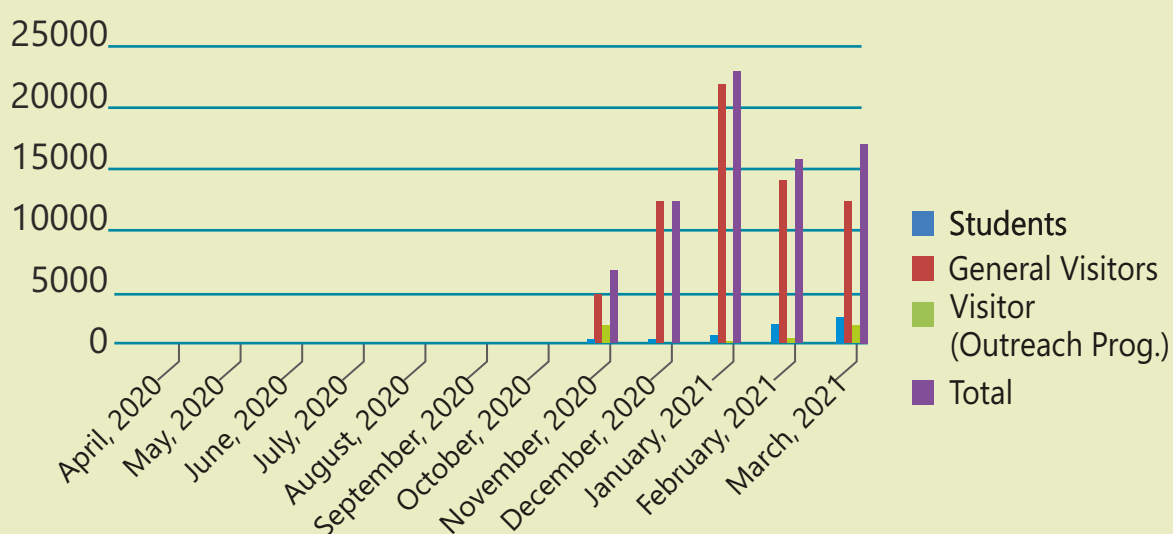
Year	Total Visitors
2016-17	604840
2017-18	609435
2018-19	561911
2019-20	561107
2020-21	73609



C. Regional Science City, Lucknow

Months	Students	General Visitors	Visitor (Outreach Prog.)	Total
April, 2020	0	0	0	0
May, 2020	0	0	0	0
June, 2020	0	0	0	0
July, 2020	0	0	0	0
August, 2020	0	0	0	0
September, 2020	0	0	0	0
October, 2020	0	0	0	0
November, 2020	114	4735	1500	6349
December, 2020	136	12823	0	12959
January, 2021	770	21343	0	22113
February, 2021	1224	14621	0	15845
March, 2021	2012	12932	1500	16444
Total	4256	66454	3000	73710

D. Regional Science City, Lucknow (On Site)



Visitors' Profile in the last five years at RSC, Lucknow (Excluding Outreach Visitors)

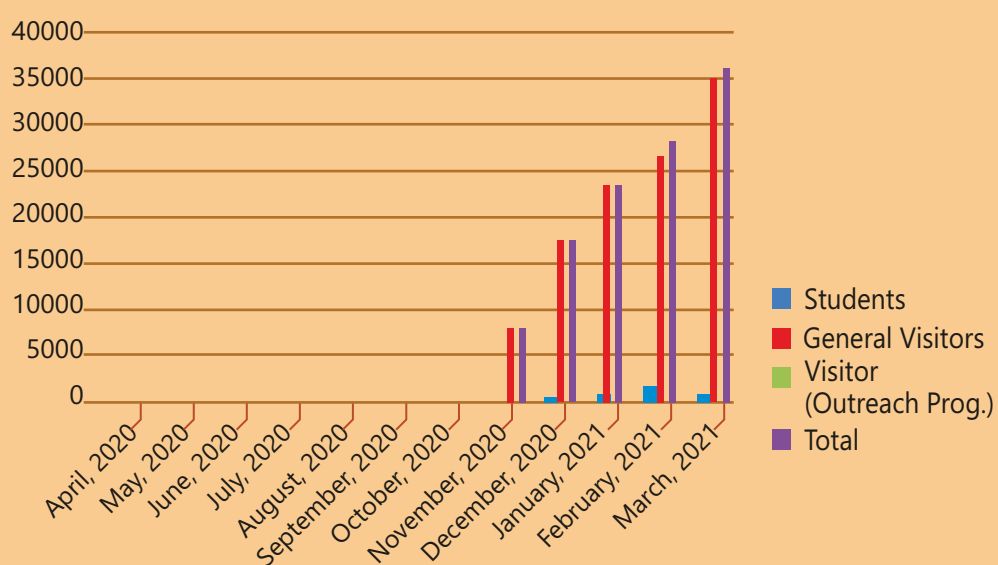
Year	Total Visitors
2016-17	302782
2017-18	336207
2018-19	371717
2019-20	347919
2020-21	70710



E. KURUKSHETRA PANORAMA & SCIENCE CENTRE, KURUKSHETRA

Months	Students	General Visitors	Visitor (Outreach Prog.)	Total
April, 2019	0	0	0	0
May, 2019	0	0	0	0
June, 2019	0	0	0	0
July, 2019	0	0	0	0
August, 2019	0	0	0	0
September, 2019	0	0	0	0
October, 2019	0	0	0	0
November, 2019	0	8057	0	8057
December, 2019	28	16788	0	16816
January, 2020	94	24339	0	24433
February, 2020	1030	26748	0	27778
March, 2020	563	34971	0	35534
Total	1715	110903	0	112618

F. Kurukshetra Panorama& Science Centre, Kurukshetra (on site)



Visitors' Profile in the last five years at KPSC,Kurukshetra (Excluding Outreach Visitors)

Year	Total Visitors
2016-17	666920
2017-18	630263
2018-19	676563
2019-20	608256
2020-21	112618



LIST OF EXHIBITS DEVELOPED / RENOVATED/ PROCURED

A. National Science Centre, Delhi

S.No.	Name of the Exhibit	Qty.	Gallery / Project	New Duplicate /Renovated
1.	Vortex	2	Kota and Shimla Project	Duplicate
2.	Frozen Motion	1	SRSC Upcoming	Duplicate
3.	Color Pyramid	1	Kota Project	Duplicate
4.	Walk in Air	2	Rajahmundry & Shimla Project	Duplicate
5.	Up or Down	1	Shimla	Duplicate
6.	Floating Ball	2	Kota and Shimla Project	Duplicate
7.	Shaded Pole Motor	1	Shimla Project	Duplicate
8.	.Color Shadow	1	KotaProject	Duplicate
9.	Hit the Ball if you can	1	Shimla Project	Duplicate
10.	Variable Pendulum	1	Shimla Project	Duplicate
11.	Earthquake Platform	1	Shimla Project	Duplicate
12.	Avalanche Disc	1	Shimla Project	Duplicate
13.	Shake Table	1	Shimla Project	Duplicate
14.	Express Route	1	Kota Project	Duplicate
15.	Pin Screen	1	Shimla Project	Duplicate
16.	Transfer of Momentum	1	Shimla Project	Duplicate
17.	Message from Depth	1	Shimla Project	Duplicate
18.	Where do you feel Comfort	1	Shimla Project	Duplicate
19.	Tsunami wave tank	1	Palampur Sc. Centre	New Gallery Exhibit
20.	Fulgurites	1	Palampur Sc. Centre	New Gallery Exhibit
21.	Longitudinal wave	1	Palampur Sc. Centre	New Gallery Exhibit
22.	Type of volcanoes and their eruption stages	1	Palampur Sc. Centre	New Gallery Exhibit
23.	Hit the ball if you can	1	Udaipur	Duplicate
24.	Express Route	1	Udaipur	Duplicate
25.	Line to curve (Hyperboloid)	1	Udaipur	Duplicate
26.	Line to curve (Hyperboloid)	1	SRSC Almora	Duplicate
27.	3D Anamorphoses	1	Udaipur	Duplicate
28.	Fun mirrors	1	Udaipur	Duplicate
29.	Fun mirrors	1	SRSC Almora	Duplicate
30.	Rotating Chair	1	Udaipur	Duplicate
31.	Body as Perceived	1	Traditional Medicine	Travelling Exhibition
32.	Cause of Disease	1	Traditional Medicine	Travelling Exhibition
33.	Traditional Medicine Worldwide	1	Traditional Medicine	Travelling Exhibition
34.	Indian Healing Traditions	1	Traditional Medicine	Travelling Exhibition
35.	Ayurveda: Science of Life	1	Traditional Medicine	Travelling Exhibition
36.	Ashtanga Ayurveda	1	Traditional Medicine	Travelling Exhibition
37.	Ayurveda: Diagnosis & Treatment Approaches	1	Traditional Medicine	Travelling Exhibition
38.	KYC (Know Your Constitution)	1	Traditional Medicine	Travelling Exhibition

S.No.	Name of the Exhibit	Qty.	Gallery / Project	New Duplicate /Renovated
39.	Panchakarma	1	Traditional Medicine	Travelling Exhibition
40.	Rasayana	1	Traditional Medicine	Travelling Exhibition
41.	Yoga & Naturopathy	1	Traditional Medicine	Travelling Exhibition
42.	Unani Medicine	1	Traditional Medicine	Travelling Exhibition
43.	Mizaj (Temperament)	1	Traditional Medicine	Travelling Exhibition
44.	Unani: Diagnosis & Treatment Approaches	1	Traditional Medicine	Travelling Exhibition
45.	Siddha Medicine	1	Traditional Medicine	Travelling Exhibition
46.	Siddha: Treatment Approaches	1	Traditional Medicine	Travelling Exhibition
47.	Homoeopathy	1	Traditional Medicine	Travelling Exhibition
48.	Sowa Rigpa	1	Traditional Medicine	Travelling Exhibition
49.	Folk Medicine	1	Traditional Medicine	Travelling Exhibition
50.	Healing Herbs	1	Traditional Medicine	Travelling Exhibition
51.	One Herb – Many Uses	1	Traditional Medicine	Travelling Exhibition
52.	Aromatic Herbs	1	Traditional Medicine	Travelling Exhibition
53.	Ayush Infrastructure	1	Traditional Medicine	Travelling Exhibition
54.	Herbal Industry	1	Traditional Medicine	Travelling Exhibition
55.	Genetic Basis of Prakriti	1	Traditional Medicine	Travelling Exhibition
56.	Herb to Drug	1	Traditional Medicine	Travelling Exhibition
57.	Protecting Traditional Knowledge: TKDL	1	Traditional Medicine	Travelling Exhibition
58.	Daily Rhythms	1	Traditional Medicine	Travelling Exhibition
59.	'Pranayama' or 'Cardiac Coherence Breathing'	1	Traditional Medicine	Travelling Exhibition
60.	Herbs & Body Systems	1	Traditional Medicine	Travelling Exhibition
61.	Integrative Medicine	1	Traditional Medicine	Travelling Exhibition
62.	Master Healers of AYUSH	1	Traditional Medicine	Travelling Exhibition
63.	Central Sculpture	1	Traditional Medicine	Travelling Exhibition
64.	Magnetic Shield	1	Science Kit	Science Kit
65.	Visualizing Vibrations of Tuning Fork	1	Science Kit	Science Kit

Total Exhibits = 68

B. Regional Science City, Lucknow

New Exhibits Developed			
S.No.	List of Exhibits	Project for	Quantity
1.	Magic Tap	HIMCOSTE project	1 No.
2.	Musical Tube		1 No.
3.	Colour Pyramid		1 No.
4.	Conic Section		1 No.
5.	Pythagoras Theorem		1 No.
6.	Head on a Platter		1 No.
7.	Kaleidoscope		1 No.
8.	Rotating Platform		1 No.
9.	Visualizing Sound		1 No.
10.	Crazy Maze /Skill Game		1 No.
11.	Infinity Well		1 No.
12.	Refracted Vision		1 No.
13.	Bust of Scientists		1 No.
14.	See -Saw in a lever		1 No.
15.	Introduction –Natural Disaster		1 No.
16.	Earthquake		1 No.
17.	Landslide		1 No.
18.	Avalanche		1 No.

Duplicate/Renovated Exhibits			
S.No.	List of Exhibits	Project for	Quantity
Renovation of existing gallery exhibits-			
1.	Area of Circle	Portable Exhibits for Exhibitions Science Fairs in Educational Institutions/holding fairs on demand	1 No.
2.	Value of Pi		1 No.
3.	Acrobatic Stick		1 No.
4.	Pin Hole Camera		1 No.
5.	Infinity Tunnel		1 No.
6.	Kaleidoscope		1 No.
7.	Cone Runs Uphill		1 No.
8.	Anamorphosis		1 No.
9.	Crazy Maze		1 No.
10.	Vortex		1 No.
11.	Brahma Disc		1 No.
12.	Swarming Liquid		1 No.
13.	Conic Section		1 No.
14.	Hand Battery		1 No.
15.	Pythagoras Theorem		1 No.
16.	Liquid Painting		1 No.

Temporary Exhibits		
S.No.	Name of Exhibit	Qty.
1.	Flood	1 No
2.	Cyclone	1 No

Kits/Aids developed in Centre		
S.No.	Name of Exhibit	Qty.
1.	Reflection- Image Multiplier	1 No
2.	Focal Length	1 No
3.	Refraction	1 No
4.	Activity of Lens	1 No
5.	Total Internal Reflection	1 No
6.	Diffraction of Light	1 No
7.	Colour Shadow	1 No
8.	Deviation of Light	1 No
9.	Refractive Index	1 No
10.	A Hole in Palm	1 No
11.	Motion with nut & circular wire	1 No
12.	Antigravity Water	1 No
13.	Antigravity Ball	1 No
14.	Mobius band	1 No
15.	Play with Inertia	1 No
16.	Wheel and thread	1 No
17.	Unbalanced mass distribution affect	1 No
18.	Balancing Stick	1 No
19.	Activity with balloon & straw	1 No
20.	Insert the egg into the bottle	1 No

total exhibits= 56

C. Kurukshetra Panorama & Science Centre, Kurukshetra

S.No.	Title of the exhibit	Type of exhibit		New/ Renovated
1.	Kinetic Sculpture and Benham's Disc	Fun Science	2	New
2.	Musical Tree	Science Park	1	New
3.	Crazy Maze, Area of Circle,Brahma's Disc etc.	Portable exhibits	10	New
4.	Solar Eclipse	Panel Exhibition (uploaded on the website)	10	New
5.	Plant Health	Panel Exhibition (uploaded on the website)	26	New

Total Exhibits = 49 No.

LIST OF POPULAR SCIENCE LECTURES

A. National Science Centre, Delhi

S. No.	Date	Title	Speaker	No. of Audience
1.	24.09.2020	Genome Jaunts	Dr. Mitali Mukherji, Chief Scientist, CSIR-IGIB and Shantiswarup Bhatnagar awardee	78
2.	10 .11.2020	Plant Health and Social Wellbeing	Dr. K. S. Rao, Professor and Head Department of Botany, University of Delhi	80
3.	27.10.2020 to 02.11.2020	Satark Bharat, Samriddh Bharat	Prof. M.A. Sikandar MANUU, Hyderabad	72
4.	26.11.2020	Indian Constitution- An Elegant Charter	Dr. Dinesh Gehlot from Jai Narayan Vyas University, Jodhpur	74
5.	21.12.2020	A Celestial Wonder on the Longest Night	Dr. D.P. Duari, Director Research & Academics M. P. Birla Planetarium Kolkata	109
6.	18.02.2021	Nanda Devi Glacier Burst: Causes & Concerns	Padambhusan Dr Anil Prakash Joshi Founder, Himalayan Environmental Studies and Conservation Organization (HESCO), Dehradun	104
7.	26.02.2021	Artificial intelligence: Opportunity & Challenges	D Kishore Balaji, Director – Global Trade Policy, Intel India	44
8.	16.03.2021	Vaccines brings us closer	Dr. Gourdas Choudhuri chairman Director & HOD of Department of Gastroenterology Hepatobiliary Sciences at Fortis Memorial Research Institute Gurugram	49
9.	25.03.2021	First war chariots discovered in the excavation at Sinauli	Dr. Sanjay Kumar Manjul Joint Director General, NMMA(ASI), Delhi	102

B. Regional Science City, Lucknow

S. No.	Date	Title	Speaker	No. of Audience
1	11.05.2020	Role of technology during lockdown due to COVID-19 pandemic	Dr. C. M. Nautiyal	78
2	18.05.2020	Human & Environment (Issues & Concerns)	Prof. A. K. Sharma	310
3	29.08.2020	Sports & Fitness	Dr. Preeti Kerketa	87
4	25.09.2020	Our Constitution	Prof. Manuka Khanna	78
5	02.10.2020	Moral Vision of Mahatma Gandhi	Prof. Kanchan Srivastava	20
6	10.11.2020	Science for and with Society in dealing with COVID-19	Prof. Vibhuti Rai	67
7	26.11.2020	Constitution of India	Dr. Anurag Kumar Srivastava	131
8	02.12.2020	Pollution and Prevention	Dr. Rajeev Upadhaya	36
9	24.03.2021	Fight against Tuberculosis'	Prof. Rajendra Prasad	39
10	08.03.2021	Women Empowerment	Ms. Aradhana Singh Sikarwar	34
11	12.01.2021	Youth & Nation	Dr. Arvind	85
12	28.02.2021	Future of Science, Technology & Innovation (STI): Impacts on Education, Skills and Work	Prof. Puneet Kumar	222
13	01.07.2021	Aroma Oils Extraction: For Herbal Sanitizer	Dr. Akhila Anand	23
14	24.07.2020	COVID-19: The Unseen and Unsaid	Dr. Shailendra K. Saxena	62
15	04.09.2020	COVID-Immunity is the best Vaccine	Prof. Surya Kant	70
16	21.12.2020	The Great Reunion of Planetary Giants: Jupiter and Saturn Conjunction	Prof. M. M. Verma	56
17	18.01.2021	Drinking Water: Problem and Prevention	Dr. Raj Mehrotra	90
18	20.02.2021	Innovation Orientation Programme	Shri Akash Singh	208
19	28.02.2021	Vaccination against COVID-19: Building Confidence among the People	Dr. Shailendra K. Saxena	76
20	28.02.2021	STI Impacting Education, Skills, and Work"	Dr. Raj Mehrotra	76
21.	22.03.2021	Simple Methodologies for Ground Water Recharge in Urban Areas	R.S. Sinha	30

C. Kurukshetra Panorama & Science Centre, Kurukshetra

S. No.	Date	Title	Speaker	No. of Audience
1	11.05.2020	Uses & Abuses of Technology	Dr. A. R. Chaudhri	94
2	18.05.2020	Museum for Equality: Diversity and Inclusion	Dr. Sukhdev Saini	105
3	09.06.2020	Technologies to Launch 100 Sattelites	Jim Cantrell	265
4	24.08.2020	Launch of World's largest Water rocket	Prof. Pon Maa Kishan	203
5	02.10.2020	Life & Works of Mahatma Gandhi	Dr A. R. Chaudhary	53
6	04.10.2020	A Virtual Tour of International Space Station	Prof. Pon Maa Kishan	105
7	05.10.2020	Design & Development of Hybrid HALE –Airship	Sh. Shivam Suri Sh.Rajvansh Bhuee Singh Sh. Yogesh Prajapat, Sh. Gurvir Singh Sh. Suddhaswatta Chaudhri	205
8	06.10.2020	NASA's Aerospace - Open Source Softwares	Prof. Pon Maa Kishan	103
9	07.10.2020	Future Aerospace Vehicle Design	Sh. Jujhar Singh, Sh. Aniket Sh. Shivam Bandari,	58
10	08.10.2020	Internship Opportunity for Non - Aerospace Engineers	Prof. Pon Maa Kishan	53
11	10.11.2020	Significant role of Science in Society	Sh. Jitender Kumar Das	36
12	07.01.2021	Science & Technology: Ancient Heritage	Sh. Jitender Kumar Das	43
13	25.01.2021	Mohan to Mahatma	Dr. A. R. Chaudhary	26
14	28.02.2021	Future of STI: Impacts on Education Skills and Work	Sh. Jitender Kumar Das	19

COMMITTEE MEMBERS (2020-21)

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2.	Dr. Dinakar Kanjilal, FNA, FNASc Former Director Inter-University Accelerator Centre(IUAC) Aruna Asaf Ali Marg, New Mehrauli Road New Delhi-110067	9.	Shri A. D. Choudhury Director General National Council of Science Museums Sector-V, Block-GN, Bidhan Nagar Kolkata- 700091
3.	Prof. P.V. Madhusudhan Rao Head, Department of Design Indian Institute of Technology (IIT) Hauz Khas New Delhi-110016	10.	Shri D. Rama Sarma Director National Science Centre, Pragati Maidan, Near Gate No.1 Bhairon Marg, New Delhi –110001
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5.	Shri Suresh Sharma Director National School of Drama New Delhi	12.	Dr. Raj Mehrotra Curator 'F' & Project Coordinator, Regional Science City, Aliganj Extension, Sector-E (Ekta Vihar), Lucknow-226024
6.	Prof. Dr. Chitra Sarkar Head, Neuropathology & Dean(Research) AIIMS, New Delhi-110029	13.	Shri G. Sajeendran Dy. Controller of Administration National Science Centre, Pragati Maidan, Near Gate No.1, New Delhi – 110001
7.	Secretary Department of Education Govt. of NCT, Delhi Old Secretariat, Civil Lines Delhi-110054		

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3.	Ms Kinkini Dasgupta Scientist Vigyan Prasara 5 th Floor Prithvi, Opp. India Habitat Centre, Lodhi Road New Delhi-110003	Member
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10.	A nominee of the DG, NCSM	Member
11.	Dr. Raj Mehrotra Project Coordinator, Regional Science City, Lucknow	Member
12.	Shri K.S. Nehru Project Coordinator Kurukshetra Panorama & Science Centre, Kurukshetra	Member

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11.	Shri D. Rama Sarma Director, National Science Centre Pragati Maidan, Near Gate No.1, Bhairon Road, New Delhi	Member
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9.	Smt. Geetika Jasuja Principal, DAV Public School Sector - 3, Urban Estate, Kurukshetra, Haryana-136118	Member
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11.	Shri D. Rama Sarma Director, National Science Centre Pragati Maidan, Near Gate No.1, Bhairon Road, New Delhi	Member
12.	Shri K.S. Nehru Project Coordinator Kurukshetra Panorama & Science Centre Kurukshetra, Haryana-136119	Member Secretary

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Ministry of Culture
Government of India



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