# कार्यकलाप प्रतिवेदन Activity Report











राष्ट्रीय विज्ञान केन्द्र (राष्ट्रीय विज्ञान संग्रहालय परिषद्) संस्कृति मंत्रालय, भारत सरकार गेट नं १ के समीप, प्रगति मैदान, नई दिल्ली - 110 001

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# कार्यकलाप प्रतिवेदन **Activity Report** 2017-18

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# With Best Wishes

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#### निदेशक की कलम से

इस वर्ष की क्रमवार सातवीं गितविधि रिपोर्ट जो अत्यंत व्यस्त गितविधियों और उपलब्धियों से भरी है, को प्रस्तुत करने में मुझे हार्दिक प्रसन्नता हो रही है। इस वर्ष के दौरान निर्धारित लक्ष्य को पूरा करने में राष्ट्रीय विज्ञान केन्द्र, दिल्ली; आंचलिक विज्ञान नगरी, लखनऊ और कुरूक्षेत्र पैनोरमा एवं विज्ञान केन्द्र, कुरूक्षेत्र की पूरी टीम ने लगातार काम किया है। चुनौतीपूर्ण वातावरण के बीच, राष्ट्रीय विज्ञान केन्द्र, दिल्ली ने 8,24,078 आगंतुकों का केन्द्र में आगमन संभव किया। इसी प्रकार आंचलिक विज्ञान नगरी, लखनऊ ने भी इस 5.5 लाख आगंतुकों का आंकड़ा पार करते हुए 5,48,968 आगंतुकों का आगमन केन्द्र में करवाया। इस वर्ष कुरूक्षेत्र पैनोरमा एवं विज्ञान केन्द्र, कुरूक्षेत्र में 7,62,763 दर्शक आए। मुझे यह सूचित करते हुए अत्यंत प्रसन्नता हो रही है कि इस वर्ष के दौरान उत्तरी ज़ोन में दर्शकों की संख्या 20 लाख से ऊपर पहुँच गई।





'स्वच्छता का ज्ञान-विज्ञान' नामक एक प्रदर्शनी विकसित की गई और 20 सितंबर 2017 को 'स्वच्छ भारत अभियान' पखवाड़ा के दौरान सार्वजनिक देखने के लिए खोली गई। प्रदर्शनी में 'स्वच्छ अभियान' पर ऐतिहासिक पृष्ठभूमि और उसके उद्देश्यों को फोटो पैनलों द्वारा दिखाया गया। व्यक्तिगत स्वच्छता का महत्व; भारत को खुले शौच से मुक्त करने के प्रयासों और अन्य संबंधित मुद्दों और चुनौतियों को प्राप्त करने के प्रयास को इस प्रदर्शनी में दिखाया गया।

त्री-आयामी चलचित्र प्रदर्शन हेतु 'गैलापागोस' नामक एक नई फिल्म 9 अगस्त 2017 को लॉन्च की गई थी। फिल्म गैलेपागोस द्वीपसमूह की स्थानिक प्रजातियों और प्राकृतिक सुंदरता के बारे में बताती है। त्री-आयामी होलोग्रिफ़क प्रक्षेपण प्रणाली का विकास कार्य अंतिम चरण में है जो एक जीवंत मंच सज्जा पर प्रक्षेपित उच्च-तकनीक परिभाषित त्री-आयामी होलोग्राम वीडियो प्रभावों को दर्शाता है। प्रदर्शन में मानव शरीर के त्री-आयामी अंकीय मॉडल बनाए गए ताकि मानव शरीर के हिस्सों के विवरण और कार्य-प्रणाली को इंटरेक्टिव तरीके से दिखाया जा सके।





हिमाचल प्रदेश में पालमपुर के लिए एक उप-क्षेत्रीय विज्ञान केन्द्र का अनुमोदन संस्कृति मंत्रालय द्वारा किया गया है। यह राष्ट्रीय विज्ञान संग्रहालय परिषद के सीधे प्रबंधन के अधीन होगा। राज्य सरकार से ज़मीन के हस्तांतरण के पश्चात कार्य आरंभ हो चुका है। मुख्य भवन का निर्माण पूरा होने के कगार पर है। विज्ञान पार्क और अन्य सुविधाओं की योजना और विकास चल रहा है। दीर्घाओं के लिए प्रदर्श विकास का कार्य प्रगति पर है। केंद्र ने विज्ञान और प्रौद्योगिकी विभाग, राजस्थान सरकार से प्राप्त अनुरोध के आधार पर राजस्थान में झालावाड़ और कोटा में विज्ञान केंद्र स्थापन हेतु प्रदर्श विकास की कार्य परियोजना श्रू की। झालावाड़ और कोटा में विज्ञान केंद्र के लिए प्रदर्श विकास का कार्य प्रगति पर है।

ISCSMD-2017 के अवसर पर आयोजित 'मच्छरों पर वैश्विक प्रयोग' के एक हिस्से के रूप में, केंद्र ने 17 नवंबर 2017 को स्कूल के छात्रों के लिए एक प्रदर्शनी-प्रतियोगिता 'कीट लाइव!' आयोजित की। छात्र प्रतिभागियों ने एकत्रित जीवित कीड़े को प्रदर्शनी में दिखाया और उनके प्रकृति, निवास, उपयोगिता और बीमारी के बारे में जानकारी दी। प्रदर्शनी का मुख्य उद्देश्य लोगों को विभिन्न प्रकार के मच्छरों, उनके जीवन चक्र, उनके द्वारा विभिन्न बीमारियों को फैलाने के बारे में और उनकी निगरानी करने की आवश्यकता के बारे में लोगों को परिचित करवाना था।

केंद्र ने 'एक्सप्रेशन इंडिया' के सहयोग से, जो एक गैर सरकारी संस्था है और स्कूल जाने वाले किशोरों को सशक्त बनाने के लिए क्रियाशील रहती है, 20 और 21 जुलाई 2017 को '6वें अंतरराष्ट्रीय युवा फिल्म निर्माताओं का महोत्सव' का आयोजन किया। महोत्सव का विषय 'सिनेमैटोग्राफी, वैल्युज एंड लाइफ स्किल्स फॉर सोशल चेंज' था, जो बच्चों और उनके अधिकारों के मुद्दों, चिंताओं और सशक्तिकरण पर केंद्रित था। 4 से 7 दिसंबर 2017 तक बागेश्वर के विवेकानंद मॉडल इंटर कॉलेज, मंडेलसेरा में कट्यूर फाउंडेशन के सहयोग से एक 'विज्ञान कार्निवल' का आयोजन किया गया। कार्निवल का उद्देश्य विज्ञान एवं प्रोद्योगिकी के क्षेत्रों में प्रगति और उपलब्धियों की झलक दिखाना था। केंद्र ने 19 दिसंबर 2017 को दिल्ली विश्वविद्यालय के डी.एस. कोठारी विज्ञान शिक्षा अन्संधान और नवाचार केंद्र द्वारा आयोजित INSPIRE इंटर्निशिप कार्यक्रम में भाग लिया। कार्यक्रम का उददेश्य गतिविधि आधारित विज्ञान शिक्षण के माध्यम से, शिक्षण-सीखने की प्रक्रिया और क्षमता निर्माण द्वारा विज्ञान शिक्षा को बढ़ाने और समृद्ध करने का प्रयास करना था। केंद्र ने 30 जनवरी से 1 फरवरी 2018 तक डीपीएस, ग्रेटर फरीदाबाद में; 13 से 15 फरवरी 2018 तक मयो कॉलेज, अजमेर में और 27 और 28 फरवरी 2018 को विज्ञान केंद्र, कोटा विज्ञान महोत्सव का आयोजन किया। पोर्टेबल सहभागितापूर्ण प्रदर्श केंद्र द्वारा प्रदर्शित किए गए थे। प्रदर्शनी की अवधि के दौरान आगंतुकों के लिए टेलीस्कोप के माध्यम से सूर्य अवलोकन और रात्रि आकाश अवलोकन कार्यक्रम किया गया तथा 'विज्ञान व चमत्कार' विषय पर नियमित प्रदर्शन दिखाए गए। केंद्र ने 17 और 18 अगस्त 2017 को राष्ट्रीय बाल विज्ञान कांग्रेस के आयोजन में अपनी सहभागिता की जिसे एन.सी.एस.टी.सी.-डी.एस.टी., भारत सरकार द्वारा प्रायोजित किया गया था। इस अवसर पर 'अक्षमता के लिए स्लभता' पर विशेष जोर देने के के लिए 'सतत विकास के लिए विज्ञान, प्रौद्योगिकी और नवीनता' पर एक संवेदनशीलता कार्यशाला आयोजित की गई। 'नई प्रदर्शनी बनाने' पर एक इंटरैक्टिव कार्यशाला 28 और 29 जून 2017 को आयोजित की गई जिसमें रा.वि.के. दिल्ली, आ.वि.न. लखनऊ और कु.पै.वि.के. कुरुक्षेत्र के क्यूरेटर, तकनीकी अधिकारी, शिक्षा/प्रदर्शनी अधिकारी ने भाग लिया। कार्यशाला का उद्देश्य प्रदर्शों पर नवीन विचारों की चर्चा करना था जिन्हें बाद में पूर्ण प्रदर्श के रूप में विकसित किया जा सके। केंद्र ने 28 अक्टूबर 2017 को स्कूल के छात्रों के लिए 'हमारे आस-पास की समस्याओं के सतत समाधान' पर एक विज्ञान संगोष्ठी का आयोजन किया। संगोष्ठी का उद्देश्य पर्यावरण प्रदूषण, यातायात की भीड़ और बेरोजगारी इत्यादि जैसी आज की सबसे दिक्कत वाली समस्याओं के समाधान के प्रति जागरूकता पैदा करना था।





केंद्र ने 'स्वच्छता पखवाड़ा' के दौरान 16 से 30 सितंबर 2017 तक स्वच्छता के महत्व के बारे में जागरूकता पैदा करने के लिए आम जनता के लिए कार्यक्रमों की एक श्रृंखला आयोजित की। कार्यक्रम हर दिन प्रतिज्ञा लेने समारोह के साथ शुरू किया जाता था। 'स्वच्छता और हमारी समाज' पर लघु नाटिका, 'हाथ धोने' पर कार्यशाला, पोस्टर प्रतियोगिता, प्रश्नोत्तरी प्रतियोगिता और 'स्वच्छता' पर प्रोजेक्ट प्रदर्शन प्रतियोगिता का आयोजन किया गया जिसमें विभिन्न स्कूलों के छात्रों ने भाग लिया।

31 जनवरी 2018 को पूर्ण चंद्र ग्रहण पर जीवंत अवलोकन कार्यक्रम केंद्र में आयोजित किया गया था। चंद्र ग्रहण देखने के लिए उच्च रिज़ॉल्यूशन दूरबीन की व्यवस्था की गई थी। कार्यक्रम के दौरान ग्रहण, चंद्र सतह सिमुलेशन, क्रेटर गठन इत्यादि की ज्यामिति पर गतिविधियां आयोजित की गईं। कार्यक्रम के दौरान बड़ी संख्या में छात्रों ने ग्रहण के वैज्ञानिक कारणों और महत्व को सीखा।

केंद्र ने 15 और 16 फरवरी 2018 को आगास्ट्या इंटरनेशनल फाउंडेशन के साथ सिक्रय सहयोग कर 'अन्वेषन 2018', जो एक राष्ट्रीय स्तर का विज्ञान और इंजीनियरिंग मेला है, का आयोजन किया। इस अवसर पर श्री मनीष सिसोदिया, माननीय उपमुख्यमंत्री, दिल्ली सरकार; श्री हरिहरन, कार्यकारी निदेशक, अगस्त्य इंटरनेशनल फाउंडेशन; पूर्व केंद्रीय गृह सिचव श्री धीरेंद्र सिंह; श्री अमित खानुजा, निदेशक आर एंड डी, सीनोप्सिस समूह, श्री आशीष भारद्वाज, प्रबंधक, मानव संसाधन टीम, सीनोप्सिस समूह उपस्थित थे। इस अविध के दौरान 3000 से अधिक जन सामान्य एवं छात्रों/शिक्षकों ने मेले का अवलोकन किया।

केंद्र ने दिल्ली और एनसीआर के स्कूल के छात्रों के लिए स्कूल पाठ्यक्रम आधारित शैक्षिक पैकेज कार्यक्रम आयोजित किया। कार्यक्रम का उद्देश्य छात्रों और शिक्षकों को विज्ञान को क्रमशः सीखने/ शिक्षण की दिशा में एक समृद्ध अनुभव देना और एक मनोरंजक तरीके से वैज्ञानिक दृष्टिकोण बढ़ाने के लिए था। इस कार्यक्रम में 6वीं से 10वीं के छात्रों के लिए वाय् और जल पर पाठ्यक्रम आधारित

गतिविधियां शामिल थीं। इसके अतिरिक्त जैव प्रौद्योगिकी; रोबोटिक; स्थैतिक बिजली; खगोल विज्ञान और भूगोल पर भी गतिविधियां शामिल थीं। इसके लिए शैक्षिक तकनीकी उपकरण, 'गोले पर विज्ञान' सुविधा का उपयोग किया गया था। लगभग 18000 छात्रों/शिक्षकों ने स्विधा का लाभ उठाया।





केंद्र ने दिसंबर 2017 में एस.सी.ई.आर.टी. और उत्तरी राज्यों के एस.आई.ई. के सहयोग से उत्तरी भारत विज्ञान नाटक प्रतियोगिता का आयोजन किया। जनवरी 2018 में उत्तरी भारत विज्ञान मेला का आयोजन एस.सी.ई.आर.टी. और उत्तरी राज्यों/संघ राज्य क्षेत्रों के एस.आई.ई., केन्द्रीय विद्यालय संगठन और जवाहर नवोदय विद्यालय समिति, नई दिल्ली के सहयोग से किया गया था।

आंचितिक विज्ञान नगरी, लखनऊ ने 20 सितंबर 2017 को 'द लॉस्ट वर्ल्ड' पर एक नया त्री-आयामी चलचित्र प्रदर्शन लॉन्च किया। लखनऊ के इंडियन इंस्टीट्यूट ऑफ टॉक्सिकोलॉजी रिसर्च के निदेशक डॉ. आलोक धवन ने इस शो का उद्घाटन किया गया। 'ग्रीस: सीक्रेट्स ऑफ पास्ट' नामक एक और नई फिल्म लॉन्च की गई जिसका उद्घाटन डॉ. नीरज बोरा, माननीय विधायक, लखनऊ (उत्तर), उत्तर प्रदेश के द्वारा सम्पन्न ह्आ।

आंचलिक विज्ञान नगरी की गतिविधियों में आगंतुकों को शामिल करने के लिए, 'स्पोर्ट्स एंड फिटनेस' विषय पर एक नई दीर्घा बनाई जा रही है। प्रदर्शनी का विकास पूरी तरह से ज़ोरों पर है। इस दीर्घा के लिए प्रदर्शों का विकास आंचलिक विज्ञान नगरी, लखनऊ और राष्ट्रीय विज्ञान केंद्र, दिल्ली में हो रहा है। प्रदर्श अलमारियाँ और आंतरिक संरचना की तैयारी पूरी कर ली गई है और प्रदर्श की स्थापना प्रगति पर है। यह दीर्घा जल्द ही आमजन के लिए खुलेगी।

21 अप्रैल 2017 को टेक ईगल इनोवेशन प्राइवेट लिमिटेड के सहयोग से 'ड्रोन और यूपवी टेक्नोलॉजी' पर एक संगोष्ठी आयोजित की गई। संगोष्ठी के दौरान ड्रोन के उपयोग बताए गए। ऑस्ट्रेलियाई राष्ट्रीय विश्वविद्यालय (एएनयू), ऑस्ट्रेलियाई उच्चायोग, दिल्ली के सहयोग से 20 जून 2017 को 'साइंस सर्कस' कार्यक्रम आयोजित किया गया था। एएनयू के अग्रणी विज्ञान संचारक डॉ. ग्राहम वाकर और डॉ. स्टुअर्ट कोहलेगेन ने आश्चर्यपूर्ण विज्ञान प्रयोगों का प्रदर्शन किया। जुलाई 2017 में भूजल विभाग, उत्तर प्रदेश के सहयोग से भूजल जागरूकता पर सप्ताहांत कार्यक्रम आयोजित किया गया था। सी.एस.आई.आर.-

सी.डी.आर.आई., लखनऊ सी.आई.एस.एच., सी.एस.टी.यू.पी., ईरा विश्वविद्यालय, जी.एस.आई., इंटीग्रल विश्वविद्यालय, एन.बी.आर.आई., एन.आर.एल.सी., एन.बी.एफ.जी.आर., नासी, लखनऊ अध्याय और आर.एस.ए.सी. के सहयोग से मार्च 2018 में **8वीं विज्ञान एक्स्पो** का आयोजन किया गया था। इन वैज्ञानिक संस्थानों ने विज्ञान एक्स्पो के दौरान अपनी शोध गतिविधियों और गैजेट प्रदर्शित किए। जीवनीय सोसाइटी, लखनऊ के सहयोग से कार्बनिक खेती पर एक संगोष्ठी 8 फरवरी 2017 को आयोजित की गई। इसका उद्देश्य स्वास्थ्य देखभाल के लिए औषधीय और सुगंधित पौधों (एमएपी) की खेती और उपयोग को बढ़ावा देने और सतत कृषि और समग्र ग्रामीण विकास को प्रोत्साहित करना था। जनवरी 2018 में उत्तर प्रदेश के विज्ञान और प्रौद्योगिकी परिषद के साथ संयुक्त रूप से 'नवप्रवर्तन महोत्सव' का आयोजन किया गया था। कार्यक्रम का उद्देश्य विशेष रूप से छात्र समुदाय के बीच अभिनव और रचनात्मक सोच की संस्कृति को बढ़ावा देना था।





कुरुक्षेत्र पैनोरमा एवं विज्ञान केन्द्र, कुरुक्षेत्र मुख्यतः दर्शकों को व्यस्त करने वाली गतिविधियों और कार्यक्रमों के आयोजन पर केन्द्रित रहता है। 'मानव शरीर' पर एक नई विज्ञान प्रदर्शन की शुरुवात की गई तािक स्कूली बच्चों में मानव शरीर के महत्वपूर्ण अंगों की क्रियाप्रणाली के बारे में जागरूकता पैदा हो सके। मौजूदा दीर्घा में दर्शकावलोकन हेतु परमाणु ऊर्जा संयंत्र का एक भागीदारितापूर्ण प्रदर्श जोड़ा गया जिसका उद्घाटन श्री ए. के. जैन, प्रमुख, कॉपॉरेट संचार समूह, एन.पी.सी.आई.एल., मुंबई ने 16 नवंबर, 2017 को किया। जन सामान्य के लिए प्रथम सहायता के माध्यम से आपातकाल के दौरान जीवन बचाने का जागरूकता कार्यक्रम जून 2017 में इंडिया रेड क्रॉस सोसाइटी के सहयोग से आयोजित किया गया। जुलाई 2017 में कुरुक्षेत्र के लोक नायक जय प्रकाश अस्पताल के सहयोग से पल्स पोलियो टीकाकरण शिविर आयोजित किए गए। पूर्ण चंद्र ग्रहण अवलोकन कार्यक्रम का आयोजन 31 जनवरी 2018 को सेलेस्ट्रॉन टेलीस्कोप का उपयोग करके किया गया। जनवरी 2018 में दिव्यांग बच्चों के लिए विशेष एक्सपोजर कार्यक्रम आयोजित किया गया। केंद्र ने फरवरी 2018 में विरुष्ठ नागरिकों को दीर्घा घूमने की विशेष सुविधा प्रदान की।

समाप्त करने से पहले, मैं अपने कर्तव्यों से पूर्ण नहीं होऊँगा जब तक कि मैं रा.वि.के.दि., आ.वि.न.ल. और कु.पै.वि.के. के अपने साथी अधिकारियों एवं कर्मचारियों के अथक प्रयासों को श्रेय नहीं दूँगा जिन्होंने

अपनी पूर्ण निष्ठा से पूर्व निर्धारित लक्ष्यों को प्राप्त करने में हमारी सहायता की है। साथ ही मैं अपने मुख्यालय राष्ट्रीय विज्ञान संग्रहालय परिषद के प्रति भी कृतज्ञता अभिव्यक्त करता हूँ जिन्होंने जब और जहाँ भी आवश्यकता हुई, हमें सहयोग प्रदान किया।

मुझे विश्वास है कि रा.वि.के.दि. आने वाले वर्षों में अनेक सफलताओं व उपलब्धियों के मील के पत्थर स्थापित करेगा।

(डी. रामा शर्मा)







#### From the Director's Desk

It gives me a great pleasure in presenting this year's activity report – seventh in a row – which is full of hectic activities and achievements. During the year the entire team of National Science Centre, Delhi, Regional Science City, Lucknow and Kurukshetra Panorama & Science Centre, Kurukshetra worked relentlessly in achieving the targets laid down. Amidst a challenging market, National Science Centre, Delhi garnered a overall **footfall of 8,24,078**. Similarly, the Regional Science City, Lucknow also surpassed the 5.5 lakh mark by attaining a **footfall of 5,48,968** during this period. Including visitors in outreach programmes, Kurukshetra Panorama & Science Centre received **7,62,763 visitors** during this period. I am delighted to inform that, in all, the North Zone has **surpassed two million** reachout during this year.





An exhibition on **'Swachhta Ka Gyan-Vigyan'** was developed and thrown open for public viewing during **'Swachh Bharat Abhiyan' Pakhwada** on 20<sup>th</sup> September 2017. The exhibition comprised of photo panels depicted the historical background of the 'Swachhta Abhiyan' & its objectives; importance of personal hygiene; efforts to achieve open defection free India and other related issues and challenges.

A **new film titled 'Galapagos' was launched** on 9<sup>th</sup> August 2017. The film briefs about endemic species & natural beauty of the Galapagos Islands. **Development work of 3D holographic projection system is in final stage** that allows stunning high-definition freeform 3D hologram video effects projected within a live stage setting. In the show the 3D digital models of human body were created for showing the details and functioning of human body parts in an interactive manner.





**Development work of Sub-Regional Science Centre** at **Palampur**, **Himachal Pradesh**, approved to be under NCSM by the Ministry of Culture, was taken up subsequent to transfer of land by the

state government. The construction of the main building is on the verge of completion. The planning and development of open air Science Park and other facilities is underway. The exhibits development for the galleries is under progress. The Centre took up a project of **exhibit development for Science Centre, Kota & Science Park, Jhalawad in Rajasthan** on the basis of a request received from Department of Science & Technology, Govt. of Rajasthan. The exhibit fabrication for gallery at Science Centre, Kota and Science Park, Jhalawad is in progress.

As a part of 'Global experiment on mosquitos' organized on the occasion of ISCSMD-2017, the Centre organized 'Insect Live!', an exhibition cum contest for school students on 17<sup>th</sup> November 2017. The student participants displayed the collected live insects and demonstrated about their nature, habitat, usefulness & disease they spread. The main objective of the exhibition was to acquaint people about different types of mosquitoes, their life cycles, how they spread different diseases, and the necessity to monitor them.

The Centre in collaboration with 'Expressions India', an NGO organized 6th International Young Film Makers' Festival on 20th & 21st July 2017 for empowering school going adolescents. The theme of event was 'Cinematography, Values and Life Skills for Social Change' focusing on the issues, concerns and empowerment of children and their rights. A Science Carnival was organized in association with Katyur Foundation at Vivekanand Model Inter College, Mandelsera, Bageshwar from 4th to 7th December 2017. The objective of the carnival was to showcase glimpses of progress and achievements in S & T sectors. The Centre participated in INSPIRE Internship Programme organized by D. S. Kothari Centre for Research & Innovation in Science Education, University of Delhi on 19th December 2017. The objective of the programme was to make efforts to enhance and enrich science education through activity-based science teaching-learning programs and capacity building. The Centre organized Science Festivals at DPS, Greater Faridabad from 30th January to 1st February 2018; at Mayo College, Ajmer from 13th to 15th February 2018 and at Science Centre, Kota on 27th & 28th February 2018. Portable participatory exhibits on Fun Science were displayed by the Centre. Regular shows on 'Science verses Miracle' along with Sun observation and night sky observation through telescope were conducted for visitors during the period of exhibition. The Centre associated in organizing National Children's Science Congress on 17th & 18th August 2017 which was supported by NCSTC-DST, Govt. of India. On the occasion a sensitization workshop on 'Science, Technology & Innovation for Sustainable Development' was conducted with special emphasis on 'Accessibility for Disabled'. An interactive workshop on 'New Exhibit Making' was organized on 28th & 29th June 2017 in which the Curators, Technical Officers, Education/Exhibition Officers from NSCD, RSCL & KPSC participated. The objectives were to identify new exhibit ideas which could later be converted into working exhibits. The Centre organized a Science Seminar on 'Sustainable Solution of Problems around us' for school students on 28th October 2017. The objective of the seminar was to create awareness towards finding solution to today's most pressing problems like environmental pollution, traffic congestion, and unemployment etc.





The Centre organized a series of programmes for general public to inculcate the awareness about importance of cleanliness from 16<sup>th</sup> to 30<sup>th</sup> September 2017 during **'Swachchta Pakhwada'**. The programme started with pledge taking ceremony every day. Skit performance on 'Swachhta and Our Society', workshop on 'Hand-Washing', poster making contest, quiz contest and project display on 'Swachhta' was organized in which students from different schools participated.

Live watch programme on **total lunar eclipse** on 31<sup>st</sup> January 2018 was organized at the Centre. Arrangement to watch the lunar eclipse was done through high resolution telescope. Activities on Geometry of eclipses, lunar surface simulation, crater formation etc. were conducted during the programme. During the event the large number of students learnt scientific causes of eclipse, its significance in interacting manner.

The Centre organized **Anveshana 2018**, a national level science & engineering fair on 15<sup>th</sup> & 16<sup>th</sup> February 2018 in active collaboration with Agastya International Foundation. On this occasion distinguished guests such as **Shri Manish Sisodia**, **Hon'ble Deputy Chief Minister**, **Govt. of Delhi**; Shri Hariharan, Executive Director, Agastya International Foundation; Shri Dhirender Singh, Former Union Home Secretary; Shri Amit Khanuja, Director R & D, Verification Group, Synopsys; Shri Ashish Bhardwaj, Manager, Human Resources Team, Synopsys were present. More than 3000 students/teachers including general public visited the fair during this period.

The Centre organized school **curriculum based educational package programme** for school students of Delhi & NCR. The objective of the programme was to deliver an enriching experience to students & teachers towards learning/teaching science and also to create and enhance scientific attitude in an interesting way. The programme consisted of **curriculum based hands-on activities** on Air & Water; Biotechnology; Robotics; Static Electricity; Astronomy & Geography for the students of grade 6<sup>th</sup> to 10<sup>th</sup>. The latest state of art educational technological tool, 'Science on Sphere' facility was also used for the purpose. About 18000 students/teachers availed the facility.





The Centre organized **Northern India Science Drama Contest** in collaboration with SCERT and SIE of northern states in December 2017. **Northern India Science Fair** was organized in collaboration with SCERT and SIE of northern states/UT, Kendriya Vidyalaya Sangathan and Jawahar Navodaya Vidyalaya Samiti, New Delhi in January 2018.

The **Regional Science City, Lucknow (RSCL)** launched a new 3D show on **'The Lost World'** was launched on 20<sup>th</sup> September 2017. Dr. Alok Dhawan, Director, Indian Institute of Toxicology Research, Lucknow was inaugurated the show. Another new film titled **'Greece: Secrets of Past'** was launched and inaugurated by Dr. Neeraj Bora, Hon'ble MLA, Lucknow (North), Uttar Pradesh

In order to engage the visitors in activities of RSCL, a new gallery is conceived on the theme '**Sports & Fitness**'. The development of exhibition is in full swing. The exhibits for this gallery are developed both at Regional Science City, Lucknow and National Science Centre, Delhi. The exhibit cabinets and interior preparations have been completed and the installation of exhibits is under progress. The gallery will be ready for opening to public very shortly.

A seminar on 'Drone & UAV Technology' was organized in association with Tech Eagle Innovation Pvt. Ltd. on 21st April 2017. The demonstration on uses of drone was given during the seminar. The 'Science Circus' show was organized on 20th June 2017 in collaboration with Australian National University (ANU), Australian High Commission, Delhi. Dr. Graham Walker and Dr. Stuart Kohlhagen, the leading Science Communicators from ANU demonstrated amazing and wonderful science experiments. Weeklong programme on Ground Water awareness was organized in association with Ground Water Department, Uttar Pradesh in July 2017. 8th Science Expo was organized in March 2018 in collaboration with CSIR-CDRI, Lucknow CISH, CSTUP, ERA University, GSI, Integral University, NBRI, NRLC, NBFGR, NASI, Lucknow Chapter and RSAC. These scientific institutions displayed their research activities & gadgets during the Science Expo. A seminar on **organic farming** in collaboration with Jivniya Society, Lucknow, was organised on 8th Feb. 2017 to promote the cultivation & use of medicinal & aromatic plants (MAPs) for health care and to encourage sustainable agriculture & holistic rural development. 'Innovation Festival' was organized jointly with Council of Science and Technology, Uttar Pradesh during in January 2018. The aim of the programme was to promote culture of Innovation and creative thinking among the student community in particular.





The Kurukshetra Panorama & Science Centre, Kurukshetra (KPSC) focuses mainly on activities and programmes to engage visitors. A new science demonstration unit on 'Human Body' was launched for creating awareness about the function of its vital organs among the students. A working model of Nuclear Power Plant was was added in the existing gallery and was inaugurated by Shri A. K. Jain, Head, Corporate Communication Group at NPCIL, Mumbai on 16<sup>th</sup> November, 2017 for public viewing. Awareness programme of saving life during emergency through First Aid was organized in association with India Red Cross Society in June 2017 or general public. Pulse Polio immunization camps were organised in collaboration with Lok Nayak Jai Parkash Hospital, Kurukshetra in July 2017. Total Lunar Eclipse observation Programme was organised on 31<sup>st</sup> January 2018 using Celestron telescope. Interactive programme for visually impaired children was organized in January 2018. Special Exposure Programme for Divyang Children was organized in March 2018. The Centre facilitated visit of senior citizens to KPSC in February 2018.

Before I conclude, I will be failing in my duties, if I do not acknowledge the untiring efforts put in by my fellow officers and staff members of NSCD, RSCL and KPSC in achieving the targets set before us. I also express my indebtedness to our headquarter at NCSM, for providing support as & when needed.

I am sure NSCD will achieve many more milestones in the years to come.

(D. Rama Sarma)







#### **Brief of Programmes/Activities/Colloborations**

#### NSC, Delhi

**Summer vacation hobby camps** for school students were held at the Centre in May-June 2017. The students from class 3<sup>rd</sup> to 12<sup>th</sup> participated in these camps. Creative Art (Junior), Creative Art (Senior), Scientific Toy Making (Junior), Scientific Toy Making (Senior), Exploring Nature, Astro Lab, Wonders of Electronics, Robotics, Films Making & Biotechnology were the streams in which students participated in large numbers. In all, 864 students developed around 3000 kits/projects in these 30 hobby camps.





A **Science Seminar on 'Sustainable Solution of Problems around us'** was organized on 28<sup>th</sup> October 2017. 16 students from eight schools of Delhi & NCR participated in the seminar. The objective of the seminar was to create awareness towards finding solution to today's most pressing problems like environmental pollution, traffic congestion, and unemployment etc. The Centre participated in the **seminar on 'Innovation'** on 5<sup>th</sup> August 2017 at Sunder Deep Engineering Institute, Dasna, Ghaziabad which was organized in association with Council of Science & Technology, UP Government. The innovative hands-on exposure was given to the participants. Demonstration lecture on 'Innovative Teaching' was conducted by the Centre. **An interactive session on 'Creativity verses Innovation'** was also conducted for the participants.

During a **Principal/Educationists Meet from Kendriya Vidyalaya Sangathan, Govt. of India** on 28<sup>th</sup> July 2017, the principals were briefed about the ongoing and regular educational activities of the Centre. The objective of the meet was to convey them about the utility & importance of the Centre for using it as effective educational resource centre. The exposure about the gallery through guided visit, 3D film show, Science on Sphere show and SDL was given to them. About 80 no. of principals/educationists from various Kendriya Vidyalayas attended the programme.

The Centre associated in organizing **National Children's Science Congress** on 17<sup>th</sup> & 18<sup>th</sup> August 2017 which was supported by NCSTC-DST, Govt. of India. On the occasion a sensitization **workshop on 'Science, Technology & Innovation for Sustainable Development'** was conducted with special emphasis on 'Accessibility for Disabled'. The teachers from schools under Government of NCT of Delhi participated in the programme. Shri Anuj Sinha, Retd. Scientist from DST, Govt. of India addressed on the occasion about the need of innovation in sustainable development of the country. About 300 science teachers from various government schools attended the programme.

Regular interactive workshops in Astronomy, Biotechnology and Air & Water were conducted for school students as special curriculum based educational package. Contents of the Astronomy workshop were geology & the surface features of the Moon (Crater, Maria etc.) and

provide answer phases of the Moon? The Biotechnology based workshops focused on developing Paramecium in lab, developing Lacto-bacillus culture from curd, preparing animal cell, learning about parts of the flower and a demonstration on water. Special package was offered to school students on Science on Sphere related to Air and Water. Shows were conducted on distribution of water, water pollutions, chemistry of water, and composition of air, greenhouse gases, global warming etc.

**Northern India Science Drama Contest** was organized on 20<sup>th</sup> December 2017. Top two winner teams from each of the Northern States i.e. Himachal Pradesh, Haryana, Uttar Pradesh, Uttrakhand, and Delhi participated in this Science Drama. There were 10 teams participated at zonal level. The main theme for this science drama was 'Science and Society'. All the teams performed their science drama on one of the sub-themes - Swachh Bharat: Role of Science and Technology, Cleansing of Rivers, Digital India & Green Energy. Padmashri Ms. Madhavi Mudgal, Sangeet Natak Akademi Awardee, Odissi dance Performer and Teacher inaugurated the contest. A panel of three judges evaluated the performance of the teams and decided upon the Best Actor, Best Actress, Best Script and Best Director and three best teams. Ms. Shovana Narayan, Padmashri & Sangeet Natak Akademi awardee, Kathak Guru & IAAS (Retd.) gave away the prizes to the winners during valediction in the evening.



The Centre organised an orientation programme on science education for the girls & women preservice teachers supporting gender equity in sciences on the occasion of **ISCSMD-2017**. 55 preservice teachers including teaching faculty from Satyam College of Education, NOIDA attended full day programme on **development of 'Low Cost Teaching Aid'** at the Centre. They learned about the development of teaching aid in different areas of science to supplement their class room teaching. They also learned to use an existing facility of the Centre, titled 'Science on Sphere' for supplementing their class room teaching. In addition, an **interactive workshop on 'Hand-Washing'** was organized in which students & teachers from different schools participated. The expert interacted with the audiences during the workshop and emphasized the importance of hand washing. The programmes were organized between 8th & 10th November 2017.

**City Level Science Fair** was organized for the students of schools in Delhi & NCR on 16<sup>th</sup> & 17<sup>th</sup> January 2018. A total of 32 team projects & 19 Individual projects were displayed in City Level Science Fair. The valedictory & prize distribution function took place on 17<sup>th</sup> January 2018. The winners received the prizes and certificates during valedictory function from the invited chief guest, Prof. (Dr.) M. S. Nathawat, Director, School of Sciences, Indira Gandhi National Open University, New Delhi. Large number of students and teachers visited the fair during this period.

**Northern India Science Fair** was organized in collaboration with SCERT/SIE/SISE of northern states, Kendriya Vidyalaya Sangathan and Jawahar Navodaya Vidyalaya Samiti on 18<sup>th</sup> & 19<sup>th</sup> January 2018. A total of 31 team projects & 17 Individual projects were displayed in Northern India Science Fair. Northern India Science Fair was inaugurated by Shri A. N. Ramachandra, Joint Commissioner, Navodaya Vidyalaya Samiti, Ministry of HRD, Govt. of India on 18<sup>th</sup> January 2018 and Dr. Arun Kumar Tripathi, Director General, National Institute of Solar Energy, Ministry of New & Renewable Energy (MNRE), Govt. of India was the chief guest on 19<sup>th</sup> January 2018. The winners received the prizes and certificates during valedictory function from the chief guest. Large number of students and teachers visited the fair during this period.





Innovation Festival was organized on 20th & 21st January 2018. The festival was inaugurated by Dr. D. K. Aswal, Director National Physical Laboratory, New Delhi on 20th January. He also delivered a popular talk on 'Metrology -A key for Innovation'. 27 innovators and 9 companies from the field of art, craft, science, technology and robotic displayed their works in the festival. A panel of experts evaluated their project works and selected winner in respective categories. An event 'Make it at Science Centre' was conducted in which 26 participants showed their creative talent. An innovative challenge on hands-on activity namely, 'Build a Balloon Tower' and 'Stick Bridge' was organized in which 16 families participated. 19 families participated in Family Science Quiz. 10 teams from different schools participated in 'Creative Robo Design' section. An interactive workshop on 'Intellectual Property Rights' was organized by M/s S. S. Rana and Co. which was attended by 50 participants. 'Give an Idea' contest was also organized in which participants gave 19 ideas and the best Idea was awarded. Innovation Space also put up its own stalls on Robotics and Biotechnology which were visited by large no. of students. Prof. Chandrima Saha, former Director, National Institute of Immunology, New Delhi and currently Vice President, INSA, New Delhi was the Chief Guest at valediction and she gave away the prizes and certificates to the winners. 350 participants participated in different events during the festival and the Innovation Festival was visited by almost 6,000 visitors and students.

**Anveshana 2018**, a national level science & engineering fair was organized on 15<sup>th</sup> & 16<sup>th</sup> February 2018 in active collaboration with Agastya International Foundation. On this occasion distinguished guests such as Shri Manish Sisodia, Hon'ble Deputy Chief Minister, Govt. of Delhi; Shri

Hariharan, Executive Director, Agastya International Foundation; Shri Dhirender Singh, Former Union Home Secretary; Shri Amit Khanuja, Director R & D, Verification Group, Synopsys; Shri Ashish Bhardwaj, Manager, Human Resources Team, Synopsys were present. More than 3000 students/teachers including general public visited the fair during this period.

**Orientation programme on 'Low Cost Teaching Aid'** was organised on 8th July 2017, 14th August 2017 and 27th - 28th September 2017. The pre-service teachers from B.Ed. College of Delhi & NCR attended the orientation programme. The teachers learned about the development of teaching aid in different areas of science to supplement their class room teaching. They were given exposure about the other facilities of the Centre such as 'Science on Sphere', Science Demonstration Lecture' and guided gallery visit. About 30 pre-service teachers attended the programme.

The Centre associated in organizing teacher **capacity building workshop on 'Swachhagraha' project** on 18<sup>th</sup> August 2017 which was supported by Centre for Environment Education and Adani Foundation. On the occasion the participant teachers shared the case studies on cleanliness drive during interactive sessions. The enriching experience was communicated to the participants on developing the contents of resource materials and project based learning on the cleaning campaign. About 50 teachers from various schools attended the programme.

MindSmart-2017, an Annual Adolescent Peer Educators Leadership meet was organized on 21st November 2017 for teachers of various schools of Delhi & NCR. National Psycholympiad 2017 was organized on 23rd & 24th August 2017 for school students of various schools of Delhi & NCR. Poster exhibition, thematic painting contest, national level quiz on Psychology, extempore speech and Nukkad Natak was conducted on this occasion. The programme was organized with active collaboration from 'Expression India', a reputed NGO working for school children in dealing with their adolescent problems and issues. The invited resource persons in related field interacted with school teachers and discussed handling of adolescent problems and issues related to students. The focus of the meet was find ways & means to deal with problems of students at their adolescence stage. About 300 students & teachers participated in the programme.

**Medical and Health Check-up Camp** was organized on 7<sup>th</sup> October 2017 in collaboration with Metro Group of Hospitals, New Delhi. The objective of the camp was to create awareness about keeping good health & hygiene. A team of doctors and supporting medical staff were invited at the Centre to provide free health check-up and medical consultation thereafter. About 100 people including office staff, security & sanitation keeping staff attended the camp.





The Centre organized a series of programmes from 29<sup>th</sup> to 31<sup>st</sup> October 2017 on the occasion of **National Unity Day falling on 31<sup>st</sup> October 2017**. The programme aimed to commemorate the 142<sup>nd</sup> birth anniversary of Sardar Vallabhbhai Patel. Canvass painting contest for Art College

students, Popular talks on 'Sardar Patel as an Integrator & Nation Builder', and 'Indianising India: Sardar Patel & National Integration' were organized. Open house quizzes on contribution of Sardar Patel in uniting India were conducted every day from 29th to 31st October 2017 for the visitors and students/teachers and prizes were given to the winners. Guided visits to the digital exhibition on Sardar Patel were conducted every day. About 750 people including students/teachers participated in the programme.





A special visit for a group of cancer patients, mostly children was organized on 14<sup>th</sup> November 2017 on the occasion of Children's Day. The visit was made possible with the help of an NGO, Cancer Patients Aid Association (CPAA) engaged in spreading awareness on the causes of cancer disease, prevention & treatment. They were given exposure about the exhibits of the galleries in general with special emphasis on 'Human Biology' gallery through a guided visit. The children enjoyed watching 'Science on Sphere' show and demonstration lecture on 'Science verses Miracles'. About 20 children including NGO's staff visited on the occasion. A visit of Divyang Children was organized on 27<sup>th</sup> March 2018 in association with Deepalaya, a reputed NGO working in Delhi & NCR for the underprivileged, disabled and downtrodden people of the society. They were given exposure about the exhibits of the galleries in general with special emphasis on 'Human Biology' gallery through a guided visit. The children enjoyed watching 'Science on Sphere' show and demonstration lecture on 'Science verses Miracles'. About 60 children including NGO's staff visited on the occasion.

Live watch programme on total lunar eclipse was organized on 31st January 2018. This spectacular lunar event was the second full moon of the month, also known as a Blue Moon. The event coincided with a total lunar eclipse, often referred to as a 'blood moon' because the moon turned a reddish or copper color when it passed through Earth's shadow. Publicity was done through banners/posters & email to invite people in the evening of 31st January for watching this natural phenomena. In addition to general public, large number of students & teachers gathered in the Centre's complex on the occasion. Arrangement to watch the lunar eclipse was done through high resolution telescope. During the event the visitor learnt scientific causes of eclipse, its significance in interacting manner. About a hundred enthusiastic visitors participated in the programme.

The Centre organized workshop for students in the area of Physics, Biotechnology and Robotics at Innovation Space throughout the year. The students from class 6<sup>th</sup> to 12<sup>th</sup> attended the workshop in Physics and developed low cost Flute, Electric Motor and Speaker. Most of the materials used for these projects were from waste. Similarly students in 'Biotech Lab' were given exposure to peep through cells, isolating the DNA using gel electrophoresis techniques. The students in Robotics workshop were trained to build a toy car powered by hand cranked generator.

The session on use of castor bot for using as turning vehicle and working of a line follower robot was attended by these participants in Robotics stream.

A series of programmes were organized for students/teachers and general public on the occasion of 'Swachchta Pakhwada' from 16th to 30th September 2017 to inculcate the awareness about importance of cleanliness. The programme started with pledge taking ceremony every day. Skit performance on 'Swachhta and Our Society' was organized in which students from different schools participated. A written science quiz was organized for invited students groups on 'Health & Hygiene'. Interactive workshop on 'Hand-Washing' was organized in which students & teachers from different schools participated. The expert interacted with the audiences during the workshop and emphasized the importance of hand washing. Poster making contest on 'Swachhta Hi Sewa' was conducted for the school students. Project display on 'Swachhta' was organized in which Eco Clubs of various schools participated. The projects showing the significance of cleanliness campaign were seen by large number of visitors. The film show on 'Swachhta' was organized for general public. The message for importance on cleanliness was delivered through the film and interaction with them. Science demonstration lecture on 'Clean Water' was conducted for general public. Cleanliness drive was taken up by the staff members of in their respective sections in NSCD. Guided visit to the gallery titled 'Water-The Elixir of Life' was conducted regularly to create awareness on cleanliness. About 850 visitors including students/teachers attended these programmes during the period.





International Yoga Day was organized on 21st June 2017 in which various educational activities were organised. Teaching faculty from Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi was invited to perform live demonstration on yoga exercises in the early morning. The NSCD staff with some general public/students attended the demonstration and did yoga exercises. Poster making contest on 'Yoga for Health' and 'Identity the Yoga Posture' contest was organized for invited school student groups. A popular science lecture on 'Yoga-A Life Style' was delivered by Dr. J. P. Sharma, Professor, Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi. On this occasion, a film show on 'Benefits of Yoga' was also organized for general public. The winner students in various contests were given prizes in the form of science kits during the valedictory function. About 350 visitors/students participated in the programme.

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 14<sup>th</sup> to 28<sup>th</sup> September 2017 during Hindi Diwas Pakhwada. Most of the staff participated in these programmes. The valedictory function took place on 28<sup>th</sup> September 2017. The Director felicitated the winners by giving prizes.

#### RSC, Lucknow

New 3D show on **'The Lost World'** was launched by Dr. Alok Dhawan, Director, Indian Institute of Toxicology Research, Lucknow on 20th September 2017. Another new film titled **"Greece: Secrets of Past"** was launched and inaugurated by Dr. Neeraj Bora, Hon'ble MLA, Lucknow (North), Uttar Pradesh. The Centre in association with Tech Eagle Innovation Pvt. Ltd., a company setup by IITians, organized **a seminar on Drone & UAV Technology** on 21<sup>st</sup> April 2017. The demonstration of various uses of drone was given during the seminar. The Centre in collaboration with Ministry of Earth Sciences, Govt. of India and Prithvi Innovation, Lucknow celebrated Earth Day 2017 by organizing a variety of education activities on 22<sup>nd</sup> April 2017. **'Save the Frog Day'** on 29<sup>th</sup> April 2017; **International Vulture Day** on 2<sup>nd</sup> September 2017 and Biodiversity Festival from 17<sup>th</sup> to 19<sup>th</sup> May, 2017 was organized in association with Zoology Department, Lucknow University and Uttar Pradesh State Biodiversity Board.





RSCL in association with Environment Directorate, UP organized a number of educational event to mark the **World Environment Day**. The concluding session of the programme was held at Indira Gandhi Pratisthan, Gomti Nagar on 5th June 2017. Hon'ble Chief Minister of UP Mahant Yogi Aditya Nath was Chief Guest of the programme. About 8500 students and people were present in concluding session. World Ozone Day in September 2017, Wild Life Week programmes in October 2017 and Sparrow Week programmes in March 2018 was also organized in collaboration with with Department of Zoology, Lucknow University and UP State Biodiversity Board.

RSCL in collaboration with **Australian National University (ANU)**, **Australian High Commission**, **Delhi** organized **'Science Circus' show on 20th June 2017**. Dr. Graham Walker and Dr. Stuart Kohlhagen, the leading Science Communicators from ANU demonstrated amazing and wonderful science experiments. RSCL in association with Ground Water Department, Uttar Pradesh organized weeklong programmes on **Ground Water awareness in July 2017**. The concluding session was graced by Prof. S. P. Baghel, Minister for Minor Irrigation & Ground Water Department, Govt. of UP. Smt. Monika S. Garg, Principal Secretary, Ground Water Department, Govt. of UP was also present on the occasion. A seminar on 'Science in Ancient India: Myth verses Reality' was organized at RSCL in collaboration with Breakthrough Society, India. The eminent scientist from scientific departments delivered their views on the occasion.

**International Fossil Day** was celebrated jointly with Paleontological Society of India. Prof. Ashok Sahni, Former HOD & Dean, Geology Department, Chandigarh University, Chandigarh was the chief guest and delivered his keynote address on **'Dinosaurs Fossils'**. Prof. M. P. Singh, Secretary, Paleontological Society of India and Dr. V. P. Mishra, former DDG, GSI also delivered their presentations. **8**<sup>th</sup> **Science Expo** was organized in March 2018 in collaboration with CSIR-CDRI, Lucknow CISH, CSTUP, ERA University, GSI, Integral University, NBRI, NRLC, NBFGR, NASI, Lucknow Chapter and RSAC. These scientific institutions displayed their research activities & gadgets during the Science Expo. RSCL organized science film show, exhibit hunt quiz contest and

popular science lecture on **International Museum Day** on 18<sup>th</sup> May 2017. RSCL organised quiz contest, interactive session & popular talk on the occasion of **ISCSMD-2017 in November 2017**. Poster Making Contest, Written science quiz, Memory game contest, Sit & Draw contest were organized on the occasion of **National Science Day**. **International Yoga Day** was organized on 21<sup>st</sup> June 2017 in which various educational activities were conducted.

**City Level Science Fair** was organized on 19<sup>th</sup> & 20<sup>th</sup> December 2017. A total of 30 team projects & 35 Individual projects were displayed in City Level Science Fair. Prof. T. Usmani, Pro-Vice Chancellor, Integral University, Lucknow was the Chief Guest of Inaugural ceremony while Smt. Ruby Singh, Assistant Director, Basic Education, UP was the Chief Guest of the valediction ceremony. The winners received the prizes and certificates during valedictory function.







**Summer vacation hobby camps** were organized for school students in May-June 2017. The students participated in Innovative Craft, Scientific toy making, Fun with Mathematics, Creative kids art, Astro Lab, Electricity & home appliances, Robotics, Science sparkle and Exploring nature. large numbers. In all, 250 students developed around 150 kits/projects in these 13 hobby camps. A workshop on 'Making Herbal Cosmetics' from the natural plant & fruits was organized in May 2017. Teachers Training Programme was organized from 28<sup>th</sup> August to 1<sup>st</sup> September 2017 and from 29<sup>th</sup> to 31<sup>st</sup> January 2018. 72 teachers from several schools participated and made 159 teaching aid.

**Live watch programme on total lunar eclipse** was organized on 31<sup>st</sup> January 2018. Arrangement to watch the lunar eclipse was done through high resolution telescope. About eight hundred enthusiastic visitors participated in the programme. A **special visit of Divyang children** was organized in December 2017 and showed them the facilities of Sci-max and 3D Film Show. About 200 children enjoyed the facilities. **A workshop on Robotics** was conducted from 29<sup>th</sup> to 31<sup>st</sup> January 2018. 50 students from different schools participated in it. The students learnt the basics of ARDUINO and & its application and made projects on LED flash Light, LCD Screen Programming, Temperature and Ultrasonic sensor used in robots. **National Championship Contest of World Robotic Olympiad-2017** was held on 7<sup>th</sup> to 8<sup>th</sup> October, 2017 at Genesis, Noida. Three tams of 9 students took part from our Innovation Hub of RSCL.

Innovation Festival was organized from 29<sup>th</sup> to 31<sup>st</sup> January 2018. The festival was inaugurated by Prof. U. N. Diwedi, Pro-Vice Chancellor, Lucknow University on 29<sup>th</sup> January. Prof. Vinay Kumar Pathak, Vice Chancellor, Abdul Kalam Technical University, UP was the Chief Guest at valediction and he gave away the prizes and certificates to the winners. 50 innovative projects were displayed by students from various schools and engineering colleges. A series of programmes were organized for students/teachers and general public to inculcate the awareness about importance of cleanliness from 16<sup>th</sup> to 30<sup>th</sup> September 2017. The programme started with pledge taking ceremony every day. Painting contest, film shows, Puppet shows and an interactive workshop on 'Hand-Washing' was organized in which students & teachers from different schools participated. Special cleaning drive was taken at bank of Gomti River in Lucknow.

#### KPSC, Kurukshetra

A new science demonstration unit was launched on 'Human Body' for creating awareness about the function of its vital organs among the students. Sh. A. K. Dhamija, Chairman, Public Awareness Committee, Haryana Anu Vidyut Pariyojana, was invited for inauguration of the same on 28th February 2018. A working model of Nuclear Power Plant was was added in the existing gallery and was inaugurated by Shri A. K. Jain, Head, Corporate Communication Group at NPCIL, Mumbai on 16th November, 2017 for public viewing. KPSC in collaboration with Australian National University (ANU), Australian High Commission, Delhi organized 'Science Circus' show on 18th June 2017. Dr. Graham Walker and Dr. Stuart Kohlhagen, the leading Science Communicators from ANU demonstrated amazing and wonderful science experiments.

A number of educational programmes were organized during **Wildlife Week** in September 2017. Painting contest, quiz contest, film shows, workshops were conducted on the occasion in collaboration with Forest Department, Government of Haryana. **Pulse Polio immunization Camp** was organised in collaboration with Lok Nayak Jai Parkash Hospital, Kurukshetra on 17th September 2017. Polio drops were given to about 125 infants during this Camp. **Heritage Quiz Contest** was organised on 11th August 2017 in collaboration with Indian National Trust for Art and Cultural Heritage (INTACH). The objective of the programme was to inculcate better understanding about rich Indian Heritage among the students.

Elocution contest on 'Science & Technology for Sustainable Development' was organised on 28th October 2017 for school students in collaboration with National Children's Science Congress for National Council for Science & Technology Communication, Department of Science & Technology, New Delhi, Govt. of India. **Mobile science exhibition** was organized in districts of Patiala, Ambala, Karnal & Jind. It covered 53 sites and traveled a distance of 1523 km to reach about 80,800 people including student & teachers.

A popular science lecture was organised on **National Technology Day** on 11<sup>th</sup> May 2017 and film shows on **International Museum Day** on 18<sup>th</sup> May 2017. Science Film Festival was conducted from 1<sup>st</sup> to 7<sup>th</sup> August 2017. KPSC organised poster making contest and popular talk on the occasion of ISCSMD-2017 in November 2017. Painting contest, 'Sketching Favorite Scientist' contest and a popular talk was organized on the occasion of National Science Day. **International Yoga Day** was organized on 21<sup>st</sup> June 2017 in which educational activities were conducted. The yoga camp was conducted by Dr. Rajni Bali, Yoga Trainer, Department of Physical Education, Kurukshetra University, Kurukshetra. In addition, a popular talk on 'Yoga for Peace & Prosperity' was also organized.

**City Level Science Fair** was organized on 28<sup>th</sup> & 29<sup>th</sup> December 2017. A total of 39 projects were displayed in City Level Science Fair. KPSC participated in 45<sup>th</sup> Chandigarh State Level Science, Mathematics and Environment Exhibition for Children from 5th to 9th December 2017 at SCERT, Chandigarh by displaying educational kits and conducted regular science demonstration programmes About 10,000 students; teachers and general visitors visited the stall.







**Summer vacation hobby camps** for school students were held at RSCL in May-June 2017. The students participated in Creative Art, Scientific toy making, Exploring nature and Wonders of Electronics. 84 participants developed 450 projects. Teachers Training Programme was organized at KPSC in which 75 teachers from several schools participated and made 150 teaching aid.

Awareness programme of saving life during emergency through First Aid was organized in association with India Red Cross Society in June 2017 or general public. Pulse Polio immunization camps were organised in collaboration with Lok Nayak Jai Parkash Hospital, Kurukshetra in July 2017. Total Lunar Eclipse observation Programme was organised on 31st January 2018 using Celestron telescope. Interactive programme for visually impaired children was organized in January 2018. Special Exposure Programme for Divyang Children was organized in March 2018. The Centre facilitated visit of senior citizens to KPSC in February 2018. KPSC organized a series of programmes for students/teachers and general public to inculcate the awareness about importance of cleanliness from 16th to 30th September 2017. The programme started with pledge taking ceremony every day. Painting contest, popular talk, slogan writing, elocution contest, quiz contest & nukkad natak was conducted for inculcating awareness among the masses.

KPSC organized a series of programmes for staff members **to encourage the use of Hindi language in official communication** as well in daily routine work. Idiom writing, Poem recitation, Hindi Translation contest was organized from 14<sup>th</sup> to 28<sup>th</sup> September 2017 during Hindi Diwas Pakhwada. Most of the staff participated in these programmes.







# 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	Shri Raj Mehrotra Project Coordinator	Shri K. Srinivasa Nehru Project Coordinator
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 Telefax	2337-1297, 2337-1893 2337-1945 2337-1263	2321804	270810
E-mail	nscdl01@gmail.com	rsclu89@rediffmail.com pcrscl@gmail.com	kpsckkr@gmail.com
Website	nscdelhi.org, nscd.gov.in	rsclucknow.org	kpsc.nscd.gov.in
Hours of opening	10:00 am to 5:30 pm	10:00 am to 5:30 pm	10:00 am to 5:30 pm
Closed on	Diwali & Holi	Diwali & Holi	Diwali & Holi
Admission Fee i) General Public ii) Genral Entry	i)Rs.50/- per head	Rs.25/- per head	Rs.35/- per head
(Group more	ii)Rs.40/- per head		Rs.30/- per head
than 25) iii) Genral Entry (BPL Card holder)	iii)Rs.5/- per head	Rs.5/- per head	Rs.5/- per head
Admission Fee i)Student group (Pvt. Schools)	i)Rs.20/- per head	Rs.10/- per head	Rs.10/- per head
ii)Student group (Govt. Schools)	ii)Rs.10/- per head	Rs.5/- per head	Rs.5/- per head
3-D Film Show/ Science on Sphere i)General Public ii)General Public (in Groups)	i)Rs.25/- per head ii)Rs.20/- per head	Rs.20/- per head Rs.20/- per head	Rs.20/- per head

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3-D Film				
Science o				
i)Studen	t Group	i)Rs.20/- per head	Rs.10/- per head	Rs.10/- per head
(Pvt. Sch	ools)	1)K3.20/ per nead	RS.10/ per neau	RS.10/ per nead
ii)Studer	nt Group	ii)Rs.10/- per head	Rs.10/- per head	Rs.5/- per head
(Govt. Sc	hools)	iijks.10/- pei ileau	Ks.10/ - per fleau	Ks.5/- per fleau
SDL/Tara	amandal	i)Rs.10/- per head		
i)General	l			
ii)Studen	t Group	ii)Rs.10/- per head		
(Pvt. Scho	ools)			
iii)Studeı	nt Group	iii)Rs.5/- per head		
(Govt. Scl	nools)			
Space Theatre			Da FO / non hood	
General Visitor			Rs.50/- per head	
Student group			Rs.30/- per head	
Inaugura	ted on	9 <sup>th</sup> January, 1992	7 <sup>th</sup> September, 1989 Upgraded to Regional Science City on 21 <sup>st</sup> Sept. 2007	6 <sup>th</sup> March, 2001
Total floo Area in So		18,773	8186	4,000
	Scientific	07	02	01
Staff	Technical	60	18	08
strength	Admn.	32	08	06
	Total	99	28	15







## (Figures in Rs. in Lakhs)

# **EXPENDITURE**

Sl. No.	Fund & Receipt	Rs. in Lakhs	GIA-SALARY	GIA-GENERAL
1	Fund released by Hqrs.		633.23	760.71
2	Revenue Receipt		645.00	
3	TOTAL (1+2)		1278.23	760.71
	Gross Expenditure: Rs. in La	GIA-SALARY	<b>GIA-GENERAL</b>	
1	NSC, DELHI		929.45	403.38
2	RSC, LUCKNOW		248.97	238.63
3	KPSC, KURUKSHETRA		89.79	111.41
4	TOTAL		1268.21	753.42
UNITWISE RECEIPTS		NSCD	RSCL	KPSC
Cumul	ative Figures up to			_
31.03.2018		329.33	140.26	175.41

## RECEIPTS

Year	Amount in Rs. in Lakhs**
2012-2013	339.71
2013-2014	335.06
2014-2015	456.04
2015-2016	528.35
2016-2017	551.86
2017-2018	645.00

<sup>\*\*</sup> This figure includes receipts of NSCD & its satellite units

# **VISITORS**

S. No	Visitors	NSCD	RSCL	KPSC
1.	Number of school groups	3228	1092	1498
2.	No. of students in groups	275497	88468	100963
3.	No. of general visitors	333938	247739	529300
4.	No. of outreach visitors	214643	212761	132500
5.	Total no. of visitors	824078	548968	762763

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





# 2. 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 Technology Heritage	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		42
	Fun Science (including 3D, Spark Theater & Science Show)	1007	09.01.1992	14.01.2006	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
	Emerging Technology	845	01.09.1996	21.07.2007	62
	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		
	Communication Saga	200	09.01.2016		
	Reception Area	316		17.03.2014	12
	Temp. Exhibition Gallery	496			
Regional	Fun Science	400	20.05.1995	March, 2005	50
Science City,	Fluidics	400	07.09.1989	Sept. 2008	64
Lucknow	Popular Science	400	07.09.1989	March, 2004	31
	Water-Our Life	400	24.12.2012		39
	Children Gallery	400	08.06.2001	Under Renovation	32
	Under water Exploration	680	21.09.2007		67
	Being Human	410	21.09.2007		41
	Biotech. Revolution	580	21.09.2007		66

	· ·	l.	1		1
	Aquamobile	130	21.09.2007	2009	01
	Scimax Hall	380	21.09.2007		01
	Pre historic life park	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		
Kurukshetra Panorama	Ground Floor a. Our Heritage	1520.25	06.03.2001	31.03.2013	49
Science Centre,	Ground Floor b. Fun Science	1520.25	06.03.2001		83
Kurukshetra	First Floor a. Panorama	1371.15	06.03.2001	30.07.2008	11
	Science Park	12500	06.03.2001		39







#### 3. NEW GALLERIES / MAJOR RENOVATION

#### NSCD:

- a) Development of gallery exhibits and science park exhibts for SRSC, Palampur
- b) Development of holographic projection in Human Biology Gallery
- c) Development of Virtual Museum at Varanasi
- d) Development of New Fun science exhibits
- e) Development of new Innovation Kits/ Teaching Aids
- f) New 3D films were launched

#### RSCL:

- a) Development of exhibits on 'Science of Sports'
- b) Renovation of Pre-Historic Life Park

#### KPSC:

- a) Development of Mobile Science Exhibition on Light.
- b) Renovation of Infinity Well, Levitating Globe, Refracted Vision & Earth From Space Exhibits in Fun Science Gallery.
- c) Renovation of Brihdeshwar Mandir Exhibit in Our Heritage Gallery.
- d) Renovation of Sea- Saw Pump Exhibit in Science Park.
- e) Development of Fun Science Gallery exhibit "Rain Stick"
- f) Launched new Science Demonstration Lecture on "Our Human Bady".



# 4. EXISTING MOBILE SCIENCE EXHIBITS IN THE CENTRE/ MUSEUM

Title of the Unit	Name of the Centre	Number of Exhibits	Year in which unit was developed	Year of major renovation
Non-Conventional Energy Sources	NSC, Delhi	24	2008-09	
Understading Mathematics	RSC, Lucknow	24	2015-16	
Transformation of Energy	RSC, Lucknow	24	1986-87	1989
Understading Mathematics	KPSC, KKR	24	2014-15	







# 5. NEW TEMPORARY EXHIBITION (IN HOUSE DEVELOPMENT)

Name of the Centre	Name of the Exhibition/project	No. of Exhibits	Date of Inauguration
NSCD	Swachhta Ka Gyan-Vigyan	06	20.09.2018
RSCL			
KPSC			

## 6. EXHIBIT DEVELOPMENT

	NSCD	RSCL	KPSC
Gallery exhibits	41	16	11
Duplicate exhibits	15	15	06
Park exhibits	03		
MSE exhibits			20
Taramandal			
Kits/aids	02	16	25
Duplicate kits/aids			1
Temporary exhibits	06		-
Total	67	47	62

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











# 7. PLANNING for the Year 2018-2019

# NSC, Delhi

Sl. No.	Name of the Scheme	
1.	Setting up of Azad Gallery at Allhabad Museum, Allhabad	
2.	Completion of Virtual Experiencial Museum at Varanasi	
3.	Renovation of Pre-historic Life gallery exhibits	
4.	4. New exhibits development in Digital Information Gallery	
5.	New Films development on exhibits of the galleries	

# RSC, Lucknow

	Sl. No.	Name of the Scheme	
1. Completion of 'Science of Sports' gallery			
2. Renovation of exhibitions-Pre-historic Life Park		Renovation of exhibitions-Pre-historic Life Park	

# KPSC, Kurukshetra

Sl. No.	Name of the Scheme
1.	Extension of parking
2.	RCC Concrete Road from main entry gate to KPSC building
3.	Construction of Trench Drain at the main entry gate of KPSC
4.	Flooring in library and conference area
5.	Land development around sphere fountain
6.	Development of sitting area in garden [adjacent to toilet block]
7.	Upgradation of electrical panel & Automatic Power Factor Correction
8.	Refurbishing of Diorama in the Mahabharata Panorama



# 8. MOBILE SCIENCE EXHIBITION PROGRAMMES

Name of Centre	Name of the Vehicle	Theme of exhibits	No. of exhibiti on siites	No of		No. of Visitors to the film shows	No. of visitors to the exhibiti on	Distan ce travell ed
NSC, Delhi		Non-	56	172			143293	1649
		Conventional						
		Sources						
RSC,	Gomti	Transformation	50	101	123	24397	158834	2438
Lucknow		of Energy	30	101	123			2430
KPSC, Kurukshetra		Understanding Mathematics	53	114			60800	1523

<sup>\*</sup>Duration at each site was about one day.







#### 9. SCIENCE EDUCATION ACTIVITIES

#### a) Science Demonstration Lectures (SDL)

Science Demonstration Lectures are conducted for providing an exposure to the teachers on the effectiveness of use of simple experimental demonstrations during the classroom lecture, made out of low cost materials and with hand tools. This method is conducive for 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
NSC, Delhi	<ol> <li>Liquid Nitrogen</li> <li>Unexpected Science</li> <li>Sound</li> <li>How Animals Walk</li> <li>Fun with Physics</li> <li>Air Pressure</li> <li>Heat</li> </ol>	876	45925	95	5850
RSC, Lucknow	<ol> <li>Sound</li> <li>Science verses Miracles</li> <li>Gravity</li> <li>Exciting Chemistry</li> <li>Super Cooled Show</li> <li>Air Pressure</li> <li>Balloon Show</li> <li>Properties of Water</li> </ol>	743	29291	74	47773
KPSC, Kurukshetra	<ol> <li>Science &amp; Miracles</li> <li>Sound</li> <li>Surprising Chemistry</li> <li>Liquid Nitrogen</li> <li>Heat</li> <li>Air Pressure</li> <li>Flora &amp; Fauna</li> <li>Spark Show</li> <li>Soap Bubbles</li> </ol>	306	8959	58	132500





# b) Environment Awareness Programmes

Name of the Centre	Name of the Programme	Date of the programme	No. of Participants	
	Lecture on Energy Saving Tips	25.05.2017	120	
NCC	Lecture on Conservation of Fossil Fuels	02.06.2017	110	
NSC, Delhi	Lecture on Fossil Fuels –Need to Conserve	08.06.2017	110	
	International Yoga Day	21.06.2017	200	
	'Swachch Bharat Abhiyan'	16.09.2017 to	4500	
	Pakhvada	30.09.2017	4500	
	Earth Day	22.04.2017	1000	
	Save the Frog Day	29.04.2017	390	
	Biodiversity Festival	17.05.2017 to	1000	
		19.05.2017		
	Vorld Environment Day 02.06.2017 &		850	
		05.06.2017		
RSC,	International Ozone Day	15.09.2017 &	1000	
Lucknow	Celebration	16.09.2017		
	International Vulture Awareness Day	02.09.2017	400	
	Wild Life Week	01.10.2017 &	500	
		02.10.2017		
	World Sparrow Day	20.03.2018	350	
	Earth Day	22.04.2017	550	
	World Environment Day	05.06.2017	350	
KPSC,	68 <sup>th</sup> Van Mahotsav Celebration	04.07.2017	300	
Kurukshetra	Wild Life Week	15.09.2017	300	
	Swachh Bharat Pakhwara	16.09.2017 to	700	
	Cleanliness Drive Programme	30.09.2017		





# c) Science Film Shows

Name of the Centre	Date/Duration	Title/Theme	No. of Shows	No. of Total Visitors
NSC, Delhi				
	17.07.2017	Water Conservation	01	135
RSC,	10.08.2017 to	Science Film Festival	32	2500
Lucknow	30.08.2017			
Luckilow	16.09.2017 to	Swachatta Pakhwara	02	350
	30.09.2017			
	31.10.2017	National Unity Day	02	350
	01.08.2017 to	Delhi Safari,	07	800
KPSC, KKR	07.08.2017	Dolly Obesity		
Kroc, KKK		Does the Higgs Boson exist		

# d) Popular Science Lectures

Name of the Centre	No. of Lectures	No. of Audience
NSC, Delhi	19	3300
RSC, Lucknow	34	5448
KPSC, Kurukshetra	14	4050

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	715	14364
RSC, Lucknow	1186	23613
KPSC, Kurukshetra	116	1740

### f) Sky Observation

Name of the Centre	No. of Programmes held	No. of Participants
NSC, Delhi	26	3600
RSC, Lucknow	50	2339
KPSC, Kurukshetra	59	885

### g) Science Quizzes

Name of the Centre	No. of Quizzes held	No. of Participants	No. of Audience
NSC, Delhi	50	1219	3926
RSC, Lucknow	57	4055	900
KPSC, Kurukshetra	14	1949	1600









## 10. Video/ Computer Software/ Multimedia Software Developed

Sl.no.	Name of the Exhibit	Format	Duration
1.	NSCD Corporate Film	Film UK format bilingual	7:00 minutes
2.	Test Your Memory	Standalone Multimedia	User Interactive
3.	Video Spinner	Computer-Electronic interface	User Interactive

## 11. CREATIVE ABILITY

## a) Vacation Hobby Camps

Name Of The Centre	Number of Camps held	Number of Projects Completed	Number of Participants
NSC, Delhi	30	3000	864
RSC, Lucknow	23	352	325
KPSC, Kurukshetra	10	450	84















# b) Science Fair

Name of the Centre	Date & Duration	Name of the Science Fair	No. of Schools Participated	No. of Students/ partcipants	No. of Projects
NSC, Delhi	16.01.2018 & 17.01.2018	City Level Science Fair	48	83	51
	18.01.2018 & 19.01.2018	Northern India Science Fair	36	79	48
	20.01.2018 & 21.01.2018	Innovation Festival		52	48
RSC, Lucknow	06.12.2017 to 08.12.2017	City Level Science Fair	18	140	65
	23.01.2017 to 25.01.2017	Innovation Festival			
KPSC, Kurukshetra	14.12.2017 & 15.12.2017	City Level Science Fair	23	62	39







# c) Date, Duration & Streams of Vacation Hobby Camps

Name & Venue of programme	Date/Duration	Streams/Subjects	No. of Participants	No. of projects
NSC, Delhi	22.05.2017 to 26.05.2017; 29.05.2017 to 02.06.2017; 05.06.2017 to 09.06.2017	<ol> <li>Creative Art (Junior)</li> <li>Creative Art (Senior)</li> <li>Scientific Toy Making (Junior)</li> <li>Scientific Toy Making (Senior)</li> <li>Exploring Nature</li> <li>Astrolab (Telescope Making)</li> <li>Wonders of Electronics</li> <li>Basics of Biotechnology</li> <li>Robotics</li> <li>Films Making</li> </ol>	864	3000
Regional Science City, Lucknow	15.05.2017 to 20.05.2017; 22.05.2017 to 27.05.2017; 29.05.2017 to 03.06.2017 & 05.06.2017 to 10.06.2017	<ol> <li>Innovative Craft</li> <li>Creative Kids Art</li> <li>Fun with Mathematics</li> <li>Astrolab</li> <li>Electricity &amp; home         applliances</li> <li>Science Sparkle</li> <li>Exploring Nature</li> <li>Scientific Toy Making</li> <li>Robotics</li> <li>Project with Arduino</li> <li>Origami</li> <li>Workshop on Herbals</li> </ol>	325	352
KPSC, Kurukshetra	29.05.2017 to 09.06.2017	<ol> <li>Creative Art</li> <li>Scientific Toy making</li> <li>Wonders of Chemistry</li> <li>Wonders of Electronics</li> <li>Exploring Nature</li> </ol>	90	336





### 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 the	No. of The	No. of Teachers	No. of Teaching Aids/Kits
Programme	Programme	Trained	Developed
NSC, Delhi	06	600	24
RSC, Lucknow	03	72	159
KPSC, Kurukshetra	04	75	150





#### b) Robotic Boot Camps/Computer Training Programmes

Name of the Centre	No. of Programmes	Duration	No. of Participants	Subjects
NSC, Delhi				
RSC, Lucknow				
KPSC,	02	29.05.2017 to	12	Basic Knowledge of
Kurukshetra		05.06.2017		Computers

#### c) Conferences/Workshops/Olympiads

#### National Science Centre, Delhi

A **Science Seminar on 'Sustainable Solution of Problems around us'** was organized on 28<sup>th</sup> October 2017. 16 students from eight schools of Delhi & NCR participated in the seminar. The objective of the seminar was to create awareness towards finding solution to today's most pressing problems like environmental pollution, traffic congestion, and unemployment etc. The Centre participated in the **seminar on 'Innovation'** on 5<sup>th</sup> August 2017 at Sunder Deep Engineering Institute, Dasna, Ghaziabad which was organized in association with Council of Science & Technology, UP Government. The innovative hands-on exposure was given to the participants. Demonstration lecture on 'Innovative Teaching' was conducted by the Centre. **An interactive session on 'Creativity verses Innovation'** was also conducted for the participants.



During a **Principal/Educationists Meet from Kendriya Vidyalaya Sangathan, Govt. of India** on 28<sup>th</sup> July 2017, the principals were briefed about the ongoing and regular educational activities of the Centre. The objective of the meet was to convey them about the utility & importance of the Centre for using it as effective educational resource centre.

The Centre associated in organizing **National Children's Science Congress** on 17<sup>th</sup> & 18<sup>th</sup> August 2017 which was supported by NCSTC-DST, Govt. of India. On the occasion a sensitization **workshop on 'Science, Technology & Innovation for Sustainable Development'** was conducted with special emphasis on 'Accessibility for Disabled'.

Regular interactive workshops in Astronomy, Biotechnology and Air & Water were conducted for school students as special curriculum based educational package. Contents of the Astronomy workshop were geology & the surface features of the Moon (Crater, Maria etc.) and provide answer phases of the Moon? The Biotechnology based workshops focused on developing Paramecium in lab, developing Lacto-bacillus culture from curd, preparing animal cell, learning about parts of the flower and a demonstration on water.

The Centre organized workshop for students in the area of Physics, Biotechnology and Robotics at Innovation Space throughout the year. The students from class 6<sup>th</sup> to 12<sup>th</sup> attended the workshop in Physics and developed low cost Flute, Electric Motor and Speaker. Most of the materials used for these projects were from waste. Similarly students in 'Biotech Lab' were given exposure to peep through cells, isolating the DNA using gel electrophoresis techniques.

The Centre organised an orientation programme on science education for the girls & women preservice teachers supporting gender equity in sciences on the occasion of **ISCSMD-2017**. 55 preservice teachers including teaching faculty from Satyam College of Education, NOIDA attended full day programme on **development of 'Low Cost Teaching Aid'** at the Centre. In addition, an **interactive workshop on 'Hand-Washing'** was organized in which students & teachers from different schools participated. The expert interacted with the audiences during the workshop and emphasized the importance of hand washing. The programmes were organized between 8<sup>th</sup> & 10<sup>th</sup> November 2017.





**Orientation programme on 'Low Cost Teaching Aid'** was organised on 8<sup>th</sup> July 2017, 14<sup>th</sup> August 2017 and 27<sup>th</sup> - 28<sup>th</sup> September 2017. The pre-service teachers from B.Ed. College of Delhi & NCR attended the orientation programme. The teachers learned about the development of teaching aid in different areas of science to supplement their class room teaching.

The Centre associated in organizing teacher **capacity building workshop on 'Swachhagraha' project** on 18<sup>th</sup> August 2017 which was supported by Centre for Environment Education and Adani Foundation. On the occasion the participant teachers shared the case studies on cleanliness drive during interactive sessions. The enriching experience was communicated to the participants on developing the contents of resource materials and project based learning on the cleaning campaign.

#### RSC, Lucknow

Regional Science City, Lucknow and Tech Eagle Innovation Pvt. Ltd. jointly organized a **workshop on 'Drone Building & Control'** on  $27^{th}$  –  $28^{th}$  April 2017. In the workshop Innovation Hub Members fabricated 3 drones and learnt the flying technique. In the workshop 19 Innovation Hub Members participated.





**A workshop on 'Making Herbal Cosmetics'** using the natural plant & fruits was organized on 25<sup>th</sup> & 26<sup>th</sup> May, 2017 in which former senior scientist Dr. Anand Akhila from CSIR-CIMAP, Lucknow was the Guest Speaker. Dr. Akhila demonstrated how the waste materials from fruits and vegetables can be converted into useful cosmetic and health products.

**A Hindi Workshop** was conducted on 27<sup>th</sup> June 2017 by Dr. Anand Prakash Rai, Secretary, Narakas-2 & Rajbhasha Adhikari, G.S.I. (NR), Lucknow to promote the Hindi language in our day to day work. A **workshop on 'Fun with Force & Pressure', 'Gene & Technology'** & **'Astrophysics & Astrogadegts'** was organized for local school students in July 2017. **A workshop on 'LED Lamp Making'** was organized on 25<sup>th</sup> August, 2017 for school children. The aim of the programme was to provide a hands-on learning & making LED lamp on very low cost.





#### KPSC, Kurukshetra

The Centre organized **interactive Teachers Training Workshops** for in - service teachers on 15 <sup>th</sup> May 2017, 18<sup>th</sup> August 2017, 30<sup>th</sup> December 2018 and 3<sup>rd</sup> January 2018. They were given a guided gallery visit and other facilities of the Centre. An interactive session on developing curriculum based educational kits was conducted for the teachers.





The Centre organized **workshop on Hindi** on 27<sup>th</sup> May 2017 & 26th Feb 2018. On this occasion a lecture on Hindi as Official Language was delivered by Sh. Ved Prakash Gaud, Director, Official Languages, Ministry of Culture, Government of India. The emphasis was given to improve knowledge about Hindi language and its use in office work. The objective of the programme was to encourage the officials on the use of Hindi Language in their day-to-day works.

**Science Circus Programme** was organized on 18<sup>th</sup> June 2017 in collaboration with the Australian High Commission, New Delhi. **Dr. Graham Walker**, Research Fellow, from Australian National University & **Dr. Stuart Kohlhagen**, ex- Head of Learning at Questacon, Canberra, Australia conducted the programme to provide capacity building opportunities to teachers on making low cost teaching-learning materials to supplement classroom teaching.





#### 13. COMMUNITY PROGRAMMES

#### NSC, Delhi

**Medical and Health Check-up Camp** was organized on 7<sup>th</sup> October 2017 in collaboration with Metro Group of Hospitals, New Delhi. The objective of the camp was to create awareness about keeping good health & hygiene. A team of doctors and supporting medical staff were invited at the Centre to provide free health check-up and medical consultation thereafter.



The Centre organized a series of programmes from 29th to 31st October 2017 on the occasion of **National Unity Day falling on 31st October 2017**. The programme aimed to commemorate the 142nd birth anniversary of Sardar Vallabhbhai Patel. Canvass painting contest for Art College students, Popular talks on 'Sardar Patel as an Integrator & Nation Builder', and 'Indianising India: Sardar Patel & National Integration' were organized. Open house quizzes on contribution of Sardar Patel in uniting India were conducted every day from 29th to 31st October 2017 for the visitors and students/teachers and prizes were given to the winners.

**A special visit for a group of cancer patients,** mostly children was organized on 14<sup>th</sup> November 2017 on the occasion of **Children's Day**. The visit was made possible with the help of an NGO, **Cancer Patients Aid Association (CPAA)** engaged in spreading awareness on the causes of cancer disease, prevention & treatment. A **visit of Divyang Children** was organized on 27<sup>th</sup> March 2018 **in association with Deepalaya**, a reputed NGO working in Delhi & NCR for the underprivileged, disabled and downtrodden people of the society.

**Live watch programme on total lunar eclipse** was organized **on 31**<sup>st</sup> **January 2018**. This spectacular lunar event was the second full moon of the month, also known as a Blue Moon. The event coincided with a total lunar eclipse, often referred to as a 'blood moon' because the moon turned a reddish or copper color when it passed through Earth's shadow. During the event the visitor learnt scientific causes of eclipse, its significance in interacting manner. About a hundred enthusiastic visitors participated in the programme.

A series of programmes were organized for students/teachers and general public on the occasion of 'Swachchta Pakhwada' from 16<sup>th</sup> to 30<sup>th</sup> September 2017 to inculcate the awareness about importance of cleanliness. The programme started with pledge taking ceremony every day. Skit performance on 'Swachhta and Our Society' was organized in which students from different schools participated. A written science quiz was organized for invited students groups on 'Health & Hygiene'. Interactive workshop on 'Hand-Washing' was organized in which students & teachers from different schools participated. The expert interacted with the audiences during the workshop and emphasized the importance of hand washing. Poster making contest on 'Swachhta Hi Sewa' was conducted for the school students. Project display on 'Swachhta' was organized in which Eco Clubs of various schools participated. The projects showing the significance of cleanliness campaign were seen by large number of visitors. The film show on 'Swachhta' was organized for general public.



**International Yoga Day** was organized **on 21**<sup>st</sup> **June 2017** in which various educational activities were organised. Teaching faculty from Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi was invited to perform live demonstration on yoga exercises in the early morning. The NSCD staff with some general public/students attended the demonstration and did yoga exercises. Poster making contest on 'Yoga for Health' and 'Identity the Yoga Posture' contest was organized for invited school student groups.

#### RSC, Lucknow

The awareness programmes on the occasion of 'No Tobacco Day' was organized on 31<sup>st</sup> May 2017. The objective of the programme was to spread awareness among children and adults towards the harmful effects of tobacco on their health. The awareness programmes on the occasion of 'International Day of Yoga' was organized in which Yoga Camp was the main attraction for the public. Quiz & lecture programme was conducted on the occasion. A popular talk was delivered on 'Yog & Aarog'.



The Centre organised **Swachh Bharat Pakhwara** (Cleanliness Drive Fortnight) from 16<sup>th</sup> to 30<sup>th</sup> September, 2017. A Swachhata March (cleanliness march), Elocution Contest, Poster Making Contest, Quiz Contest and a Science Drama was organised on the occasion. Special programmes were organized on the occasion of **Vigilance Awareness Week** from 2<sup>nd</sup> & 3<sup>rd</sup> November, 2017. A pledge on 'Corruption Free India', a quiz contest and a popular talk was conducted on this occasion. The viewing programme on **Lunar Eclipse** was organized on 31<sup>st</sup> Jan. 2018 using telescope and other gadgets.

**Water Awareness Programme** was organzied for the students in rural areas in Upper Primary School, Bakshi Ka Talab, Lucknow on 18th July 2017. **Nukkad Nataks** were performed by professionals from Song and Drama Department, Information and Broadcasting Ministry, Govt. of India to inculcate the awareness on groundwater conservation.



#### KPSC, Kuurukshetra

Yoga Practices and training were arranged for the staff members of the Centre on 21st June 2017 on the occasion of International Day of Yoga in the morning from 7.00am to 8.00 am. Yoga trainer Mr Gulshan and Mr Manish Kumar from Patanjali Yogpeeth, Kurukshetra taught about different *Asanas* and *Pranayams*.





**Pulse Polio immunization Camps** were organized in collaboration with Lok Nayak Jai Parkash Hospital, Kurukshetra on 2<sup>nd</sup> July 2017, 17<sup>th</sup> September 2017, 28<sup>th</sup> January 2018 & 25<sup>th</sup> March 2018. Polio drops were given to about 150 infants during this Camp.





The Centre organised **Swachh Bharat Pakhwara** (Cleanliness Drive Fortnight) from 16<sup>th</sup> to 30<sup>th</sup> September, 2017. A Swachhata March (cleanliness march), Elocution Contest, Poster Making Contest, Quiz Contest and a Science Drama was organised on the occasion.



# 14. Science Drama/ Puppetry/Other forms of Performing Art

Name of the Centre	Venue of program	Description of Media	No. of teams participated	No. of plays performed	No. of Audience
NSC,	NSCD	Northern India	10	10	2000
Delhi		Science Drama			
		Contest on			
		20.12.2017			
RSC,	RSCL	Nukkad Natak	06	06	2750
Lucknow		Competition &			
		Puppet show			
KPSC,	KPSC				
Kurukshetra					





## 15. COMMEMORATIVE EVENTS

Name of the Centre	Name of the Events	No. of Programmes	No. of Participants
NSC, Delhi	National Technology Day	3	320
,	World Environment Day	3	375
	International Yoga Day	4	200
	National Unity Day	4	750
	World Science Day	5	750
	Childrens' Day	2	120
	National Science Day	3	300
	Earth Day	3	1000
RSC, Lucknow	Save the Frog Day	4	390
	Biodiversity Festival	4	1000
	International Museum Day	3	150
	No Tobacco Day	1	100
	World Environment Day	5	850
	International Yoga Day	3	75
	Ground Water week	15	1850
	International Vulture Day	2	400
	Annual Day Celebration	8	1800
	World Ozone Day	10	1000
	Wild Life Week Celebration	4	500
	International Science Centre & Museum Day	3	550
	National Science Day	8	550
	Sparrow Week	4	350
KPSC,	Earth Day Celebration	3	500
Kurukshetra	Heritage Day	3	400
	National Technology Day	4	400
	International Museum Day	1	150
	International Day of Yoga	5	50
	68th Van Mahotsava Celebration	3	300
	International Science Centre and	4	300
	Science Museum Day- 2017		
	National Science Day	4	300
	Centre's Anniversary Day	2	150



# 16. TEMPORARY EXHIBITIONS

Name of The Centre	Title of The Exhibits	Date/Duration	No. of Visuals/ Panels	No. of working Animated Exhibits
NSC, Delhi	Swachhta Ka Gyan- Vigyan	20.09.2017	06	
RSC, Lucknow				
KPSC, KKR	Understanding Universe	90 days	35	12





## 17. COLLABORATIVE PROGRAMMES

## NSC, Delhi

Sl. No.	Name of Collaborative	Programme	Date of programme
1.	Agency PCRA, New Delhi	Lecture programme during summer camps	22.05.2017 to 31.05.2017 & 01.06.2017 to 09.06.2017
2.	Expression India-NGO	Lecture series on 'Understanding Adolescence'	22.05.2017 to 31.05.2017 & 01.06.2017 to 09.06.2017
3.	Expression India-NGO	6 <sup>th</sup> International Young Film Makers' Festival on 20 <sup>th</sup> & 21 <sup>st</sup> July 2017	20.07.2017 & 21.07.2017
4.	Council of Science & Technology, UP Government	Seminar on 'Innovation'	05.08.2017
5.	NCSTC-DST, Govt. of India	National Children's Science Congress	17.08.2017 & 18.08.2017
6.	Expression India-NGO	National Psycholympiad 2017	23.08.2017 & 24.08.2017
7.	Centre for Environment Education and Adani Foundation	Teacher capacity building workshop on 'Swachhagraha' project	18.08.2017
8.	SDMC, New Delhi	Swachchta Pakhwada Programmes	16.09.2017 to 30.09.2017
9.	Metro Group of Hospitals, New Delhi	Medical and Health Check-up Camp	07.10.2017
10.	Cancer Patients Aid Association (CPAA)- NGO	Special visit for a group of cancer patients	14.11.2017
11.	Expression India-NGO	MindStart-2017	21.11.2017
12.	Katyur Foundation	Science Carnival at Vivekanand Model Inter College, Mandelsera, Bageshwar	04.12.2017 to 07.12.2017
13.	DPS Greater Faridabad	Science Festival	30.01.2018 to 01.02.2018
14.	Agastya International Foundation-NGO	Anveshana 2018, a National Level Science & Engineering Fair	15.02.2018 & 16.08.2018
15.	Mayo College, Ajmer	Science Festival	13.02.2018 to 15.02.2018
16.	Department of Science & Technology, Govt. of Rajasthan	Science Festival	27.02.2018 to 28.02.2018
17.	Respective SCERT/SISE/SIE in northern states	Northern India Science Drama Competition	20.12.2017

Sl. No.	Name of Collaborative Agency	Programme	Date of programme
18.	Respective SCERT/SISE/SIE in northern states, KVS, CBSE & NVS	Northern India Science Fair	18.01.2018 & 19.01.2018
19.	Directorate of Education, Municipal Corporation of Delhi	MSE Programme for under-privileged Students	01.02.2018 to 15.03.2018





# RSC, Lucknow

Sl. No.	Name of Collaborative Agency	Programme	Date of Programme
1.	Ministry of Earth Sciences	Earth Day	22.04.2017
2.	Zoology Department, Lucknow University and UP State Biodiversity Board, Lucknow	Biodiversity Festival week	17.05.2017 to 19.05.2017
3.	Directorate of Environment, UP and Uttar Pradesh Association of Sciences (UPAS)	World Environment Day	02.05.2017 & 05.06.2017
4.	Australian National University	Science Circus	20.06.2017
5.	Ground Water Department, UP	Ground Water Week Celebration	16.07.2017 to 22.07.2017
6.	Zoology Dept. Lucknow University	International Vulture Awareness Day	02.09.2017
7.	Department of Zoology, Lucknow University, UP State Biodiversity Board, Lucknow	Wild Life Week Celebration	01.10.2017 & 02.10.2017
8.	Paleontological Society of India	International Fossil Day	16.10.2017
9.	The National Academy of Science, India, Lucknow Chapter	Winter School Programme	30.12.2017 & 31.12.2017

## KPSC, Kurukshetra

Sl. No.	Name of Collaborative Agency	Programme	Date of programme
1.	Lok Nayak Jai Parkash Hospital	Pulse Polio Immunization	02.07.2017 17.09.2017 28.01.2018 & 25.03.2018
2.	Haryana Forest Department, Kurukshetra	68th Taru Divas - Van Mahotsav Celebration	04.07.2017
3.	Indian National Trust for Art and Cultural Heritage	Heritage Quiz Contest	11.08.2017
4.	Bharat Vikas Parishad, Kurukshetra	Know India and Indian Science	08.10.2017
5.	State Council of Educational Research and Training Campus, Chandigarh	Chandigarh State Level Science, Mathematics and Environment Exhibition for Children	05.12.2017 to 09.12.2017
6.	Indian National Trust for Art and Cultural Heritage	'Route to Roots' Painting & Writing Contest	23.02.2018

## 18. LIBRARY & INFORMATION

Name of the Centre	Item	Total holding as on 31 <sup>st</sup> March Previous year	No. Acquired during current year	Net holding as on 31 <sup>st</sup> March of current year
	Books	6836	169	7005
	Journals	914	374	1288
NSC, Delhi	Audio/Visual (CD-ROM/DVD/Blue- Ray etc.)	761	24	785
	Books	2282	-	2282
	Journals	935	36	971
RSC,	Leaflets	-	-	-
Lucknow	Films 16mm	61+1 spool	-	61+1 spool
	Films 36mm	-	-	-
	Audio cassettes	8	-	8
	Video tapes	15	27	42
	Video CDs	154	-	154
KPSC,	Books	1182	40	1222
Kurukshetra	Video CDs	256	1	257



### 19. PUBLICATIONS OF THE MUSEUM/ CENTRE

## **List of Publications from Museum / Centre**

Name of the	Name of the Publication	Process	Number	Expenditure
Centre			Printed	Incurred (Rs.)
NSC, Delhi				
RSC,				
Lucknow				
KPSC,	Summer Vacation Hobby Camp	Digital Printing	150	Rs. 10,000/-
Kurukshetra	Booklets			
	Teachers Training Programme	Digital Printing	80	Rs. 2,500/-
	Booklets			

## 20. CONSTRUCTION

## NSC, Delhi

S.No.	Name of the Work	Date of	Date of	Amount
		start	completion	(in Rs.)
1	Additional entry gate for library, 5th floor at			
	NSC, Delhi.	21.04.2017	04.05.2017	166650.00
2	Providing and fixing profile sheet fencing on			
	rear side boundary at National Science			
	Centre, Delhi.	09.05.2017	06.06.2017	430381.00
3	Renovation of ground floor guest rooms at			
	National Science Centre, Delhi.	10.07.2017	25.09.2017	1370013.00
4	Up-gradation of main entry area (Phase II)			
	at National Science Centre, Delhi.	22.09.2017	05.03.2018	3777650.00
5	Supply, Installation, Testing &			
	Commissioning of 2 mtr dia rotating granite			
	ball fountain at National Science Centre,			
	Delhi.	08.12.2017	21.12.2017	2643700.00
6	Renovation of Type II Staff Quarters of NSC,			
	Delhi at Abhay Khand III, Indirapuram Gzb.	14.12.2017	10.04.2018	2923493.00
7	Minor Civil & Electrical works for renovation			
	of Cafeteria Kitchen at NSC, Delhi.	03.02.2018	10.04.2018	318257.00
8	Renovation of Cafeteria By Providing			
	Kitchen Exhaust and Ventillation system and	08.02.2018	24.03.2018	1029990.00
	matching Kitchen Equipments Etc at NSC	00.02.2010	21.00.2010	1023330.00
	Delhi			
9	Providing and fixing stainless steel railing			
	for staircases and other visitor's circulation			
	area at National Science Centre, Delhi.	16.02.2018	25.04.2018	3453928.00

## RSC, Lucknow

Name of the Work	Date of start	Date of completion	Amount (in Rs.)

## KPSC, Kurukshetra

S.No.	Name of the Work	Date of start	Date of completion	Amount (in Rs.)
1	Renovation of fire fighting system			
	at KPSC, Kurukshetra.	14.07.2017	13.08.2017	277245.00
2	Extension of garden toilet at Kurukshetra Panorama and Science			
	Centre, Kurukshetra	15.02.2018	30.03.2018	736460.00

## 21. PROCUREMENT OF EQUIPMENT (Under Pl-5(iv), Costing Rs. 5000/- or more)

## NSC, Delhi

Sl. No.	Name of the Equipment	Date of procurement	Cost in Rs.
1.	Computer System	22.09.2017	98900.00
2.	Server Setup	18.09.2017	516231.00
3.	IP/IR based Survillance	18.11.2017	471783.00
4.	Software Licence Trinble, Sketch Pro	10.10.2017	249818.00
5.	Vein Viewer Projector	20.10.2017	499520.00
6.	Mini Fridge	23.10.2017	20400.00
7.	Audio System for Auditorium	28.02.2018	1182643.00
8.	Digital Projector for Conference Room	09.01.2018	597950.00
9.	CAMC of Digital Conference System	17.02.2018	942820.00

# RSC, Lucknow

Sl.No	Name of the Equipment	Date of procurement	Cost in Rs.
1.	Scrubbing Machine	06.10.2017	171100.00
2.	IP/IR based Survillance	18.11.2017	754734.00
3.	Computer System without Monitor	09.01.2018	171000.00

## KPSC, Kurukshetra

Sl.No	Name of the Equipment	Date of procurement	Cost in Rs.
1.	LED Display Panel	11.04.2017	7578.00
2.	10 " Tablets I ball 5 No.	21.04.2017	58900.00
3.	19" LED Monitor 1 No.	21.04.2017	6500.00
4.	Media Player	21.04.2017	2900.00

5.	DC Motor 5 No.	21.04.2017	18450.00
6.	Fire Extinguisher Co <sup>2</sup> 5 No.	24.01.2018	3200.00
7.	Printer Dot Matrix Epson LQ 310	24.03.2018	718592.00
8.	Augmented Reality Server	27.03.2018	12921.00
9.	Inverter 900 VA Microtek	31.03.2018	104432.00
10.	LED Flood Light 92 No.	24.03.2018	718592.00
11.	Human Torso	27.03.2018	12921.00
12.	DFMD ZS Metal Detector, Hand Held Detector,	31.03.2018	104432.00
	Vehical inspection Mirror		
13.	IP/IR based Survillance	09.11.2017	397847.00

## 22. PERSONNEL

## a) \* New Appointments (Regular/Deputation/Adhoc)

Name of the Centre	Sl. No.	Full Name of Personnel	Designation	Date of Joining
NSC, Delhi	1.	Sh. Vishal Kumar Sandeep	Office Assistant Gr.I	07.09.2017
NSC, Dellii	2.	Sh. Ankush Gaurav	Office Assistant Gr.I	16.10.2017
RSC, Lucknow	Nil			
KPSC, KKR	Nil			

## b) Promotions

Name of the Centre	Sl. No	Full Name of Personnel	Designation Prior to Promotion	Designation After Promotion	Effective Date of Promotion
NSC, Delhi	1.	Sh. Hardeep Kumar Alagh	SPO (looking after the work of SO)	Deputy CoA	31.03.2018
	2.	Sh. Adarsh Malhotra	Assistant (G)	SO SO	14.07.2017
	3	Sh. Deep Chand	Jr. Steno	Sr. Steno	14.07.2017
	4.	Smt. Vijay Laxmi	UDC	Assistant (F & A)	18.07.2017
	5.	Smt Valsamma M P	Office Assistant Gr.III	Office Assistant Gr.II	02.07.2017
RSC,	1.	D Pandey	Office Assistant Gr.III	Office Assistant Gr.II	02.07.2017
Lucknow					
KPSC, KKR			Nil		

Name of the Centre	Sl. No	Full Name of Personnel	Designation Prior to Promotion	Designation After Promotion	Effective Date of Promotion
KPSC, KKR	1.		Nil		

## c) Transfers

Name of	Name of the		Trar	ısferred	Effective Date
the Centre	Personnel	Designation	From	То	of Transfer
NSC, Delhi	1. Sh. Sujay Majumdar	Curator 'C'	NSC, Delhi	CRTL/CMD	12.04.2017
	2. Sh. M M E Manboodari	CoA	NSC, Delhi	VITM, Bangalore	29.05.2017
RSC, Lucknow	1. Sh. K K Chaterjee	Edu. Officer 'B'	RSC, Lucknow	NSC, Delhi	10.04.2017
	1. Sh. Umesh Kumar	Curator 'E'	RSC, Lucknow	NSC, Mumbai	29.04.2017
KPSC, KKR	1.Dr. Raj Mehrotra	Curator 'E'	KPSC, KKR	RSC, Lucknow	24.04.2017
	2. Shri Sashikumar	Assistant	KPSC, KKR	VITM, Bangalore	15.09.2017

## d) Retirement/ Repatriation/Resignation

SI. No	Full name of	Designation	Name of the	Date of	Remarks mention
	Personnel		Centre	retirement/	Retirement/
				Release	Repatriation
1.	Sh. A. K.	Tech. 'E'	RSC,	31.07.2017	Retired
	Srivastava		Lucknow		

# e) Foreign Deputations

### NSC, Delhi

1. Shri Anurag Kumar, Curator 'F', NSCD 13.11.2017

13.11.2017 to 19.11.2017

Tokyo, Japan

### RSC, Lucknow

- NIL -

### KPSC, Kurukshetra

- NIL -

## 23. DISTINGUISHED VISITORS

## NSC, Delhi

Sl. No	Name of the Personnel	Designation/organisation
1.	Shri Manish Sisodia	Hon'ble Deputy Chief Minister, Govt of Delhi
2.	Shri G. Parthasarathy	Indian diplomat, former Ambassador & author
3.	Shri B.S. Prakash	Former Ambassador of India to Brazil
4.	Ms. Shefali Shah, IAS	Joint Secretary, Ministry of Culture, Govt. of India
5.	Mr. Swapan Kumar Roy	Additional Secretary, Government of Bangladesh and Director General, National Museum of Science & Technology, Dhaka, Bangladesh
6.	Prof. Chandrima Saha	Former Director, National Institute of Immunology, New Delhi and currently Vice President, INSA, New Delhi
7.	Shri Dhirender Singh	Former Union Home Secretary, Govt. of India
8.	Padmashri Ms. Madhavi Mudgal	Sangeet Natak Akademi Awardee, Odissi dance Performer and Teacher
9.	Padmashri Ms. Shovana Narayan	Sangeet Natak Akademi awardee, Kathak Guru & IAAS (Retd.)
10.	Dr. Sujata Mohanty,	Professor, Stem Cell Facility, All India Institute of Medical Sciences, New Delhi
11.	Dr. Ruchika Das	Psychiatrist, Moolchand Hospital, New Delhi
12.	Ms. Aprajita	Counselor , Moolchand Hospital, New Delhi
13.	Dr. Nishi Arora	Ayurvedic & Uunani Tibbia College & Hospital (Heritage Building), Delhi
14.	Dr. Sunita Gupta	Associate Professor, Daulat Ram College, University of Delhi
15.	Shri Sidharth Saran	Dy. Director, PCRA, New Delhi
16.	Ms. Priya Kumar	Psychiatrist, Moolchand Hospital , New Delhi
17.	Mrs. Vaishali Deshpande	Counselor, Moolchand Hospital, New Delhi
18.	Dr. Aparna Singh	Counselor, Moolchand Hospital , New Delhi
19.	Dr. J. P. Sharma	Professor, Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi
20.	Dr. Sanjeev Kumar Tiwari	Associate Professor, Maharaja Agresen College, University of Delhi
21.	Dr. Sunil Choudhry	HOD, Department of Political Science, University of Delhi
22.	Dr. D. K. Aswal	Director, National Physical Laboratory, New Delhi
23.	Prof. K. Thyagarajan	Professor, Department of Physics, Indian Institute of Technology, Delhi
24.	Shri Anuj Sinha	Retd. Scientist from DST, Govt. of India
25.	Dr. Sushma Moitra	Prof. & Vice Principal, Miranda College, University of Delhi
26.	Dr. Sunil Srivastava	Prof., Swami Shardhanand College, University of Delhi
27.	Prof. (Dr.) M. S. Nathawat	Director, School of Sciences, Indira Gandhi National Open University, New Delhi
28.	Shri A. N. Ramachandra	Joint Commissioner, Navodaya Vidyalaya Samiti, Ministry of HRD, Govt. of India
29.	Dr. Arun Kumar Tripathi	Director General, National Institute of Solar Energy, Ministry of New & Renewable Energy (MNRE), Govt. of India

30.	Shri Hariharan G.	Executive Director, Agastya International Foundation
31.	Shri Amit Khanuja	Director, R & D Division, Verification Group, Synopsys
32.	Shri Ashish Bhardwaj	Manager, Human Resources Team, Synopsys
33.	Ms. Shahla Sultana	Manager, HRD, Synopsys
34.	Shri Hardayal Prasad	MD & CEO, SBI New Delhi
35.	Smt. Madhu Singh	Deputy Director (Science & TV), Directorate of Education,
		Delhi Government





## RSC, Lucknow

S. No.	Name of the Personnel	Designation//Organization
1.	Dr. R. S. Sinha	Hydrologist GWD Lucknow
2.	Dr. B. B. Trivedi	Expert CGWB lucknow
3.	Dr. A. Mishra Gen. Secretary	Yog & Naturopathy Centre, New Delhi
4.	Smt. Monica Singh	Principal Secretary, Ground Water Deptt, UP
-		
5.	Prof. Raj Kumar S. Pant	IIT, Mumbai
6.	Shri Gaurav Sharma	Sen. Scientist ,NPCIL
7.	Dr. Rupesh Kumar, IAS	Spl. Secretary Environment Deptt.
8.	Dr. Amita Kannujiya	Zoology Deptt, Lucknow University, Lucknow
9.	Dr. Madhu Tripathi,	Biodiversity, Board, Lucknow
10.	Dr. Alok Dhawan	Director, CSIR-IITR Lucknow
11.	Dr. R D Gaur	Former Scientific Officer, CSTUP, Lucknow
12.	Prof Anil Kumar	Lucknow University, Lucknow
13.	Dr. V. P. Sharma	Sr Scientist, CSIR-IITR, Lucknow
14.	Prof MM Verma	Lucknow University, Lucknow
15.	Shri Ram Kishnu, IPS	Vigilance Deptt., Lucknow
16.	Dr. A. K. Shah	Scientist, IISR, Lucknow
17.	Dr. Ramesh Chandra	CMO, Lucknow
18.	Dr. Om Prakash Pandey	Emeritus Scientist, ISRO, Lucknow
19.	Dr Preeti Kanaujia	State Coordinator, CEE, Lucknow
20.	Dr D. K. Srivastava	JD, CSTUP, Lucknow
21.	Dr. Neeraj Bora	Member of Legislative Assembly ,UP
22.	Prof. PK Seth	Ex-CEO, Biotech Park, Lucknow
23.	Prtof. Krishna Mishra	Head, NASI
24.	Dr. B.V. Kharbade	DG, NRLC, Lucknow

## KPSC, Kurukshetra

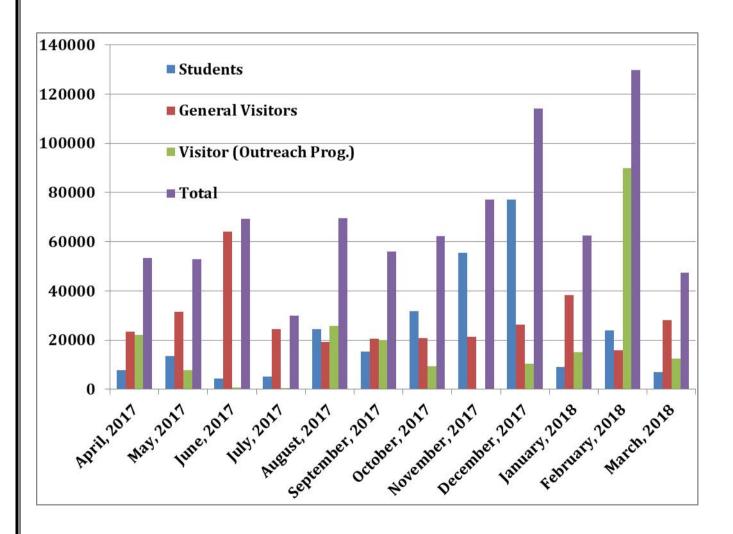
S. No.	Name of the Personnel	Designation//Organization
1.	Sh. Murali Nagrajan	MD & CEO, DCB Bank
2.	Col. Santosh Dabral	Indian Army
3.	Sonalben Shah	W/o Sh. Amit Shah, President of BJP
4.	Sh. Dinesh M. N.	IPS, Jaipur
5.	Sh. Vivek Singh Thakur	Judge, Himachal Pradesh High Court, Shimla
6.	Sh. Jayant Sharma	Press Secretary to Governor of Himachal Pradesh

#### Annexure -I

### **VISITORS STATISTICS (YEAR 2017 - 2018)**

#### A. National Science Centre, Delhi

Months	Months Students General Visitors Visitor		Total	
1-10110115			(Outreach Prog.)	
April, 2017	7791	23476	22122	53389
May, 2017	13560	31614	7751	52925
June, 2017	4412	64159	760	69331
July, 2017	5067	24417	500	29484
August, 2017	24386	19169	25885	69440
September, 2017	15355	20459	20075	55889
October, 2017	31872	20857	9430	62159
November, 2017	55573	21381	275	77229
December, 2017	77216	26296	10500	114012
January, 2018	9195	38334	15000	62529
February, 2018	23965	15762	90000	129727
March, 2018	7105	28014	12345	47464
Total	275497	333938	214643	824078



## B. National Science Centre, Delhi (On Site)

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

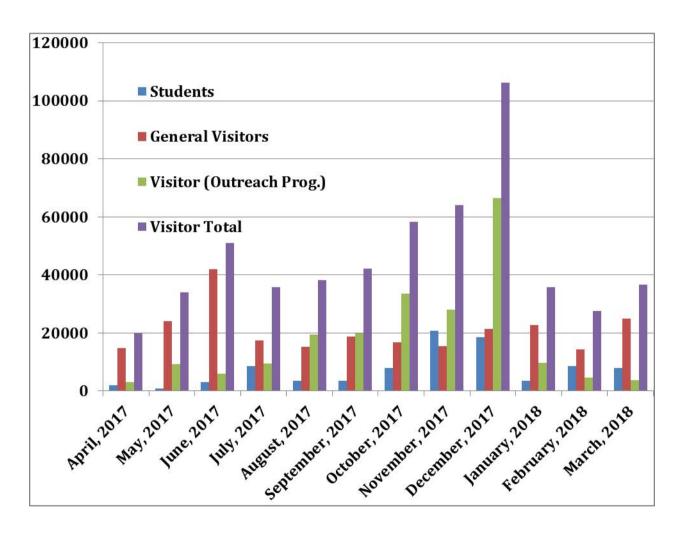
Year	Total Visitors
2013-14	708599
2014-15	594214
2015-16	606794
2016-17	604840
2017-18	609435





### C. Regional Science City, Lucknow

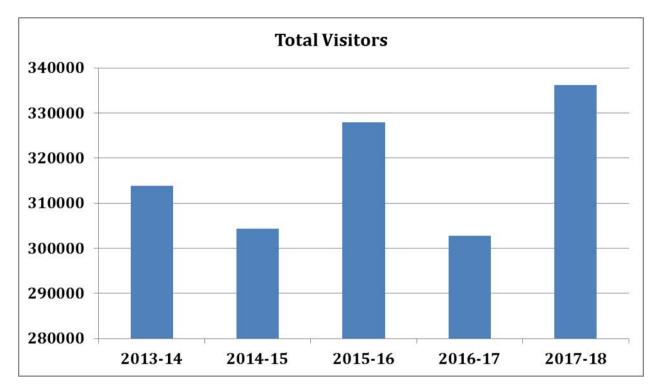
Months	Students	General Visitors	Visitor (Outreach Prog.)	Total
April, 2017	1961	14822	3000	19783
May, 2017	840	24046	9188	34074
June, 2017	3038	41864	6002	50904
July, 2017	8578	17509	9560	35647
August, 2017	3551	15223	19355	38129
September, 2017	3444	18817	19782	42043
October, 2017	7871	16852	33472	58195
November, 2017	20749	15384	27900	64033
December, 2017	18419	21409	66487	106315
January, 2018	3425	22617	9715	35757
February, 2018	8625	14289	4550	27464
March, 2018	7967	24907	3750	36624
Total	88468	247739	212761	548968



## D. Regional Science City, Lucknow (On Site)

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

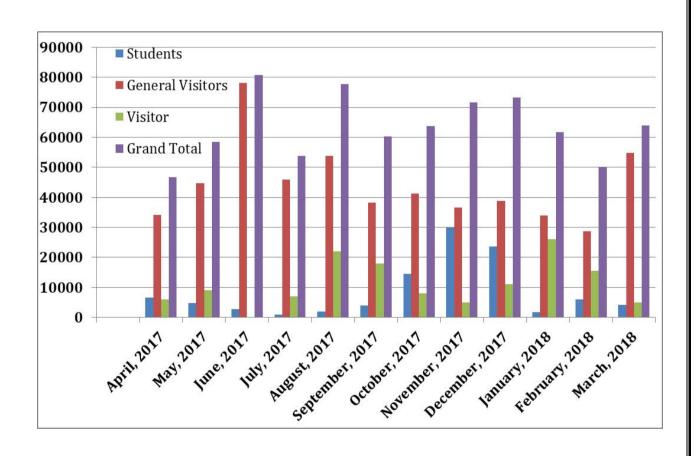
Year	Total Visitors
2013-14	313829
2014-15	304323
2015-16	327919
2016-17	302782
2017-18	336207





### E. Kurukshetra Panorama & Science Centre, Kurukshetra

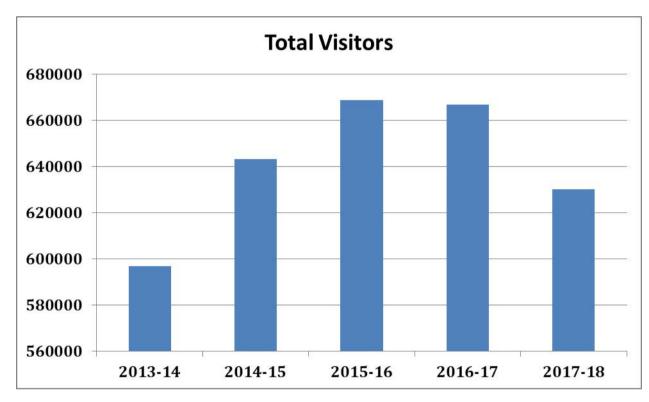
Months	Students	General	Visitor	<b>Grand Total</b>
		Visitors	(Outreach Prog.)	
April, 2017	6575	34221	6000	46796
May, 2017	4729	44772	9000	58501
June, 2017	2778	78067	0	80845
July, 2017	894	45884	7000	53778
August, 2017	1917	53863	22000	77780
September, 2017	3982	38282	18000	60264
October, 2017	14536	41272	8000	63808
November, 2017	30004	36649	5000	71653
December, 2017	23536	38806	11000	73342
January, 2018	1826	33883	26000	61709
February, 2018	5968	28792	15500	50260
March, 2018	4218	54809	5000	64027
Total	100963	529300	132500	762763



### F. Kurukshetra Panorama & Science Centre, Kurukshetra (On Site)

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

Year	Visitors
2013-14	596848
2014-15	643203
2015-16	668916
2016-17	666920
2017-18	630263





### **Annexure-II**

## LIST OF EXHIBITS DEVELOPED / RENOVATED/ PROCURED

## A. National Science Centre, Delhi

View Your Veins	Sl. No.	Name of the Exhibit	Name of the Gallery	New/ Duplicate	Quantity
Homunculus Sculpture		Viou Vour Voine	Human biology Callory NSCD	* *	01
Digestive System					
Respiratory system		_			
5         Circulatory System         Holographic Human Anatomy Film         New         01           6         Skeleton System         Holographic Human Anatomy Film         New         01           7         Muscular System         Holographic Human Anatomy Film         New         01           8         Nervous System         Holographic Human Anatomy Film         New         01           9         Integumentary System         Holographic Human Anatomy Film         New         01           10         Lymphatic System         Holographic Human Anatomy Film         New         01           11         Urinary System         Holographic Human Anatomy Film         New         01           12         Endocrine System         Holographic Human Anatomy Film         New         01           13         Reproductive System         Holographic Human Anatomy Film         New         01           14         Turn faster         Short films on Exhibits, NSCD         New         01           15         Where do we feel comfort         Short films on Exhibits, NSCD         New         01           16         Catenary bridge         Short films on Exhibits, NSCD         New         01           17         Magnetic field         Short films on Exhibits, NSCD<					
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40 Variable Pendulum Fun Science Gallery Exhibit New 01	40	Variable Pendulum	Fun Science Gallery Exhibit		01

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41	Match the Face	Fun Science Gallery Exhibit	New	01
42	Loop The Loop;	Fun Science , SRSC, Palampur	Duplicate	01
43	Hit The Ball If you Can	Fun Science , SRSC, Palampur	Duplicate	01
44	Infinity Tunnel	Fun Science , SRSC, Palampur	Duplicate	01
45	Loop The Loop	Fun Science , SRSC, kottayam	Duplicate	01
46	Fun Mirrors	Fun Science , SRSC, Palampur	Duplicate	01
47	Message from Depth	Fun Science , SRSC, Palampur	Duplicate	01
48	Dancing Rings	Fun Science , SRSC, Palampur	Duplicate	01
49	All Roads Lead to Rome	Fun Science , SRSC, Palampur	Duplicate	01
50	Impossible Mixture	Fun Science , SRSC, Palampur	Duplicate	01
51	Infinity Tunnel	Fun Science , SRSC, Palampur	Duplicate	01
52	Hit the Ball if You Can	Fun Science , SRSC, Kottayam	Duplicate	01
53	Color Pyramid	Fun Science , SRSC, Palampur	Duplicate	01
54	Kaleidoscope	Fun Science , SRSC, Palampur	Duplicate	01
55	Cylinder to Hyperboloid	Fun Science , SRSC, Palampur	Duplicate	01
56	Fun Mirrors	Fun Science , SRSC	Duplicate	01
57	Cleanliness	'Swachhta ka Gyan Vigyan', NSCD	Tempo. exh	01
58	Personal Hygiene	'Swachhta ka Gyan Vigyan', NSCD	Tempo. exh	01
59	Community Hygiene	'Swachhta ka Gyan Vigyan', NSCD	Tempo. exh	01
60	Cleanliness Matters	'Swachhta ka Gyan Vigyan', NSCD	Tempo. exh	01
61	Managing Waste	'Swachhta ka Gyan Vigyan', NSCD	Tempo. exh	01
62	My Clean India: The	'Swachhta ka Gyan Vigyan', NSCD	Tempo. exh	01
	Pledge for All			
63	Express route	Science Park SRSC, Palampur	New	01
64	Express Route	Science Park , SRSC, Kottayam	New	01
65	Walk in Air	Science Park SRSC, Palampur	New	01
66	Bridges	Innovation, NSCD	Kit	01
67	Magnetic Lines of Forces	Innovation, NSCD	Kit	01

## **Total Exhibits = 67**



# B. Regional Science City, Lucknow

	New Exhib	oits Develpoed			
S.No.	List of Exhibits	Project for	Quantity		
1.	Be at Centre for NSCD	Sports & Fitness Gallery	01		
2.	Catch the frog	Sports & Fitness Gallery	01		
3.	Ear Brain Hand Eye coordination	Sports & Fitness Gallery	01		
4.	Visual Activity	Sports & Fitness Gallery	01		
5.	Ready set go	Sports & Fitness Gallery	01		
7.	Beam and Rope walk	Sports & Fitness Gallery	01		
8.	Land like Cat	Sports & Fitness Gallery	01		
9.	How long we concentrate for	Sports & Fitness Gallery	01		
10.	Cycling	Sports & Fitness Gallery	01		
11.	Action Replay	Sports & Fitness Gallery	01		
12.	Arm Wrestling	Sports & Fitness Gallery	01		
13.	Magnus Effect	Sports & Fitness Gallery	01		
14.	Flexibility Tester	Sports & Fitness Gallery	01		
15.	Rope Climbing	Sports & Fitness Gallery	01		
16.	Image Memory	Sports & Fitness Gallery			
			Sub		
			Total=16		
Duplicate/Renovated Exhibits					
S.No.	List of Exhibits	Project for	Quantity		
1.	Air water Interplay	Fluidics	01		
2.	Fluid Oscillator	Fluidics	01		
3.	Constant Flow Vessel	Fluidics	01		
4.	Domestic flow meter	Fluidics	01		
5.	Archimedes Principal	Fluidics	01		
7.	Kalpan Turbine	Fluidics	01		
8.	Magic Water Tap	Fluidics	01		
9.	Play with sprayer	Fluidics	01		
10.	Scientist Bust	Science Park	01		
11.	Vortex	Fluidics	01		
12.	Virtual Drum	Fun Science	01		
13.	Being Human	Being Human	01		
14.	Hero's Turbine	Fluidics	01		
15.	Floating Ball	Fluidics	01		
			Sub		
			Total=15		
	Kits D	Developed			
S.No.	List of Exhibits/Kits	Project for	Quantity		
1.	Horizontal Sextant	Low Cost Teaching Aid	01		
2.	How we breath in	Low Cost Teaching Aid	01		
3.	Drone	Low Cost Teaching Aid	01		
4.	Bird Finder	Low Cost Teaching Aid	01		
5.	Soil Profile	Low Cost Teaching Aid	01		
6.	Lifecycle of Butterfly	Low Cost Teaching Aid	01		
7.	Human Conductivity Chain	Low Cost Teaching Aid	01		
8.	Electrochemical Welcome	Low Cost Teaching Aid	01		

			Sub Total=16
16.	Sun Earth Moon Model	Hobby Camps	01
_	Temperature	The second secon	
15.	Deactivation of battery at low	Hobby Camps	01
14.	AC Helmet	Hobby Camps	01
13.	How we walk	Hobby Camps	01
12.	Value of Pi	Hobby Camps	01
11.	Napier Bones	Low Cost Teaching Aid	01
10.	Herbarium	Low Cost Teaching Aid	01
9.	Learning By Doing Kit	Low Cost Teaching Aid	01

#### **Total Exhibits = 16+15+16 = 47**





## C. Kurukshetra Panorama & Science Centre, Kurukshetra

Sl.No.	Title of the exhibit	Type of exhibit	New/Renovated
1.	Infinity Well	Fun Science	Renovated
2.	Levitating Globe	Fun Science	Renovated
3.	Brihdeshwar Mandir	Our Heritage	Renovated
4.	Refracted Vision	Fun Science	Renovated
5.	Sea- Saw Pump	Science Park	Renovated
6.	Earth From Space	Fun Science	Renovated
7.	Augmented Reality App with Cluster of exhibits	Gallery Exhibits -10 no.	New
8.	Rain Stick	Science Park	New
9.	Light in Communication	Mobile Science Exhibition	New
10.	Holography	Mobile Science Exhibition	New
11.	Catch the Frog	Mobile Science Exhibition	New
12.	Illuminated Tunnel	Mobile Science Exhibition	New
13.	Refraction of Light	Mobile Science Exhibition	New
14.	Optical Heritage	Mobile Science Exhibition	New
15.	Light: What is it	Mobile Science Exhibition	New
16.	Reflection of Light	Mobile Science Exhibition	New
17.	Infrared Wave	Mobile Science Exhibition	New
18.	Harnessing Light	Mobile Science Exhibition	New
19.	Capturing Light	Mobile Science Exhibition	New
20.	Light Pollution	Mobile Science Exhibition	New
21.	Light and Mood	Mobile Science Exhibition	New
22.	Light in Nature	Mobile Science Exhibition	New
23.	Future of Light	Mobile Science Exhibition	New
24.	Dual Nature of Light	Mobile Science Exhibition	New
25.	Ultraviolet Radiation	Mobile Science Exhibition	New
26.	Transverse & Longitudinal Waves	Mobile Science Exhibition	New
27.	Visualizing AC and DC Light	Mobile Science Exhibition	New
28.	Phosphorescence and Fluorescence	Mobile Science Exhibition	New
29.	Carbon Atom Model	Kit	New
30.	Wave Generator	Kit	New
31.	Lazy Pendulum	Kit	New
32.	Can you put it in the slot?	Kit	New
33.	Pressure difference	Kit	New
34.	Inertia	Kit	New
35.	Centrifugal force	Kit	New
36.	Bitten Biscuit puzzle	Kit	New
37.	Letter H Puzzle	Kit	New
38.	Interconnected blocks	Kit	New
39.	Human Torso	Kit – 15 Props	New

Total Exhibits Developed = 62 Nos.

#### **Annexure-III**

#### LIST OF POPULAR SCIENCE LECTURES

### A. National Science Centre, Delhi

S. No.	Date	Title	Speaker	No. of Audience
1.	11.05.2017	Harnessing the Potential of Stem Cell Technology	Dr. Sujata Mohanty, Professor, Stem Cell Facility, All India Institute of Medical Sciences, New Delhi	320
2.	22.05.2017	Dealing with problems of Adolescence	Dr. Ruchika Das Psychiatrist, Moolchand Hospital, New Delhi	150
3.	23.05.2017	Making Effective Career Choices	Ms. Aprajita Counselor , Moolchand Hospital, New Delhi	140
4.	24.05.2017	Positive Parenting Skills	Dr. Nishi Arora Ayurvedic & Uunani Tibbia College & Hospital (Heritage Building), Delhi	130
5.	25.05.2017	Financial Education for Salaried Persons	Dr. Sunita Gupta Associate Professor, Daulat Ram College, University of Delhi	120
6.	25.05.2017	Energy Saving Tips	Shri Sidharth Saran, Dy. Director, PCRA, New Delhi	120
7.	29.05.2017	Understanding & Coping with Emotions	Ms. Priya Kumar Psychiatrist, Moolchand Hospital , New Delhi	130
8.	30.05.2017	Nutritional Values & Wellbeing in the Adolescent years	Dr. Nishi Arora Ayurvedic & Uunani Tibbia College & Hospital (Heritage Building), Delhi	130
9.	31.05.2017	Preventing High Risk Behaviours during adolescence	Mrs. Vaishali Deshpande Counselor, Moolchand Hospital, New Delhi	110
10.	01.06.2017	Financial Education for Salaried Persons (SEBI)	Dr. Sunita Gupta Associate Professor, Daulat Ram College, University of Delhi	120
11.	05.06.2017	Dealing with problems of Adolescence	Dr. Aparna Singh Counselor, Moolchand Hospital , New Delhi	120
12.	06.06.2017	Nutritional Values & Wellbeing in the Adolescent years	Dr. Nishi Arora Ayurvedic & Uunani Tibbia College & Hospital (Heritage Building), Delhi	110
13.	07.06.2017	Making Effective Career Choices	Ms. Aparajita Counselor, Moolchand Hospital ,	110

			New Delhi	
14.	09.06.2017	Financial Education for	Dr. Sunita Gupta	120
		Salaried Persons (SEBI)	Associate Professor,	
			Daulat Ram College,	
			University of Delhi	
15.	21.06.2017	Yoga-A Life Style	Dr. J. P. Sharma, Professor, Indira	120
			Gandhi Institute of Physical	
			Education & Sports Sciences,	
			University of Delhi	
16.	30.10.2017	Sardar Patel as an	Dr. Sanjeev Kumar Tiwari ,	310
		Integrator & Nation	Associate Professor, Maharaja	
		Builder	Agresen College, University of	
			Delhi	
17.	31.10.2017	Indianising India: Sardar	Dr. Sunil Choudhry, HOD,	320
		Patel & National	Department of Political Science,	
		Integration	University of Delhi	
18.	20.01.2018	Metrology –A key for	Dr. D. K. Aswal, Director National	320
		Innovation	Physical Laboratory, New Delhi	
19.	28.02.2018	Importance of Raman	Prof. K. Thyagarajan, Professor,	300
		Effect in Optics'	Department of Physics, Indian	
			Institute of Technology, Delhi	





# B. Regional Science City, Lucknow

S.N	Date	Name of Speaker	Designation	Topic	Audience	
1.	18.05.2017	Dr. C. M.Nautiyal	Former Scientist BSIP,Lucknow	Museums and Society	150	
2.	31.05.2017	Mrs.Jyotsana Srivastava	Hope Intiative lucknow	Harmful tobacco	140	
3.	20.06.2017	Dr. Graham Walker and Dr. Stuart Kdhagen	Science Communicator, Australia	Science Circus	950	
4.	21.06.2017	Ms.Sakshi Gangwar	Instructor,Art of living Aliganj lko	Yoga	45	
5.	21.06.2017	Dr.Awadhesh Mishra	Secretary yoga & natropathy centre,new delhi	Yog and Aarog	75	
6.	16.07.2017	Shri P.K Srivastava	Scientist	Scientoon	150	
7.	17.07.2017	Shri R.S. Sinha	Hydrologist	Ground Water Awareness	145	
8.	18.07.2017	Dr.B.B Trivedi	Ex sen. Ex. Engineer CGWB	Ground Water Awareness	150	
9.	19.07.2017	Dr. R.S Yadav	Hydrologist, CGWB	Ground Water Awareness	700	
10.	21.07.2107	Dr. Sanjeev Shukla	BSNV degree college lucknow	Water Demonstartion	150	
11.	21.07.2017	Dr. C M Nautiyal	Former Scientist BSIP, Lucknow	Ground Water Awareness	150	
12.	21.07.2017	Dr. Krishna Gopal	Rtd. Ex. Asst Director IITR	Ground Water Awareness	150	
13.	21.07.2017	Dr. V.P Sharma	Scientist, IITR	Ground Water Awareness	150	
14.	21.09.2017	Shri Gaurav Sharma	Manager, NPCIL	Nuclear power	150	
15.	28.09.2017	Prof. R. S. Pant	IIT Bombay	Science of Flight	150	
16.	16.10.2017	Dr. P.K Srivastava	Former Scientist CDRI	Ozone layer Conservation	150	
17.	16.10.2017	Dr. Ashok Sahini	BSIP	Palaenotology	180	
18.	31.10.2017	Prof. Anil Kumar	Lucknow University	Sardar Vallabhai patel	200	
19.	03.11.2017	Shri Ram Kishan	IPS, Up Govt	Vigilance Awareness Day	150	
20.	10.11.2017	Dr. Ramesh Chandra	Expert of Health Department	International Science Centre and science Museum Day	200	
21.	12.11.2017	Dr. Raj Mehrotra	Project Coordinator, RSCL	Science is Fun	250	
22.	06.12.2017	Dr. Om Prakash Pandey	Emeritus Scientist, ISRO	Intelligence in Ancient S & T	338	
23.	10.12.2017	Dr. Raj Mehrotra	Project Coordinator, RSCL	Demonstrations in Phy. and Chem.	400	

24.	30.12.2017	Dr. Raj Mehrotra	Project Coordinator, RSCL	Exciting demonstrations in Phy. and Chem.	150
25.	31.12.2017	Dr. Manvendra Tripathi	CMP Degree College, Allahabaad	Understanding Mathematics	165
26.	31.12.2017	Dr R. K. Awasthi	St Xeviers college Agra	amazing physics	165
27.	09.01.2018	Prof M. L. B. Bhatt	VC KGMU	Life Style Disorders and Healthy Living"	155
28.	27.02.2018	Dr P. K. Srivastava,	Former Scientist, CSIR-CDRI	cv raman memo lecture	160
29.	23.02.2018	Dr P. K. Seth	Consultant Biotech Park	Bio energy	1600
30.	23.02.2018	Dr V.P. Kamboj	Former Director, CDRI	Science & Skill	120
31.	01.02.2018	Shri V.P. Gaur	Director, Raj Bhasha	Rajbhasha avam Matrabhasha	155
32.	26.03.2018	Dr. Nityanand	Former Director, CDRI	Science Our Responsibility	165
33.	27.03.2018	Dr. S. K. Barik	Director NBRI	Neutraceuticals	165
34.	27.03.2018	Dr. Ramesh Chandra	CMO Health Department	Health & Hyzene	155



# C. Kurukshetra Panorama & Science Centre, Kurukshetra

S. No.	Date	Topic of the Lecture	Name of the speaker	No. of Audiences
1.	18.04.2017	Cultural Context of Heritage Sites	Dr. Sukhdev Saini, Professor, Ancient History Department, Kurukshetra University, Kurukshetra	400
2.	22.04.2017	Our Mother Earth & its Mineral Resources	Dr. Naresh Kumar, Assistant Professor, Department of Geology, Kurukshetra University, Kurukshetra	500
3.	11.05.2017	Role of Green Technology in Development	Dr. D. P. Singh, Chairman, Chemistry Department, National Institute of Technology, Kurukshetra	400
4.	29.05.2017	Health & Hygiene	Dr. Rajan Kumar, Medical Officer, Ramakrishna Ayurvedic Medical College, Bengaluru	100
5.	31.05.2017	Save Precious Life through First Aid	Shri Rajinder Saini, District Training Officer, Indian Red Cross Society, Kurukshetra	100
6.	02.06.2017	Health & Hygiene	Dr. Rajan Kumar, Medical Officer, Ramakrishna Ayurvedic Medical College, Hospital and Research Centre ( <i>RAMC</i> ), Bengaluru	100
7.	05.06.2017	Save Precious Life through First Aid	Shri Rajinder Saini, District Training Officer, Indian Red Cross Society, Kurukshetra	100
8.	18.06.2017	Science Circus	Dr. Graham Walker, Research Fellow, from Australian National University & Dr. Stuart Kohlhagen, ex- Head of Learning at Questacon, Canberra, Australia	600
9.	21.06.2017	Yoga for Peace & Prosperity	Dr. Rajni Bali, Yoga Trainer, Department of Physical Education, Kurukshetra University Kurukshetra	50
10.	27.09.2017	Health & Hygiene	Dr. Rajan Kumar, Medical Officer, Ramakrishna Ayurvedic Medical College, Hospital and Research Centre ( <i>RAMC</i> ), Bengaluru	700
11.	31.10.2017	life & works of Sardar Vallabhbhai Patel	Dr. S. K. Chahal, Professor, Department of History, Kurukshetra University, Kurukshetra	400
12.	10.11.2017	Science-A logical explanation of the mysterious	Dr. A. R. Choudhri, Chairman, Department of Geology, Kurukshetra University Kurukshetra	300
13.	16.11.2017	Overview of Nuclear Power	Shri A. K. Jain, Head, Corporate Communication Group at NPCIL, Mumbai	300
14.	28.02.2018	Nuclear Energy & Its Perspective	Sh. Gaurav Kaloniya, Scientific Officer-D, from Nuclear Power Corporation of India Limited, Mumbai	300

### **COMMITTEE MEMBERS (2017-18)**

Annexure-IV

	List of Members of Executive Committee of National Science Centre, Delhi						
1.	Prof. Dinesh Singh Vice Chancellor Delhi University & Chairman, EC, NSC, Delhi University Road, Delhi-110007	8.	A Representative of Ministry of Culture not below the rank of Dy. Secretary Ministry of Culture, Govt. of India, 329 C Wing, Shastri Bhawan, New Delhi-110015				
2.	Dr. K. Satyanarayan Sr. Dy. Director General Division: Publication & Information Indian Council of Medical Research V. Ramalinga Swami Bhavan New Delhi-110029	9.	Shri G. S. Rautela, Director General, National Council of Science Museums, Sector-V, Block-GN, Bidhan Nagar, Kolkata-700091.				
3.	Dr. Dinakar Kanjilal Director Nuclear Science Centre Inter-University Accelerator Centre(IUAC) Aruna Asaf Ali Marg, New Mehrauli Road, New Delhi-110067	10.	Shri D. Rama Sarma Director National Science Centre, Pragati Maidan, Near Gate No.1 Bhairon Marg, New Delhi – 110001				
4.	Prof. Jitendra P. Khurana Department of Plant Molecular Biology, University of Delhi South campus, Benito Juarez Road New Delhi – 110021	11.	Shri Anurag Kumar, Curator 'F', National Science Centre, Pragati Maidan, Near Gate No.1, Bhairon Marg, New Delhi – 110001				
5.	Dr. Vineeta Bal Scientist National Institute of Immunology Aruna Asaf Ali Road, New Delhi – 110 067	12.	Shri Umesh Kumar, Project Coordinator Regional Science City Aliganj Extension Sector-E (Ekta Vihar), Lucknow-226 024.				
6.	Dr. R. Gopichandran Director, Vigyan Prasar A-50, Institutional Area, Sector-62, Noida - 201309, U.P.	13.	Shri M M E Namboodiri Administrative Officer National Science Centre, Pragati Maidan, Near Gate No.1, New Delhi – 110001				
7.	The Principal Secretary Department of Education Govt. of NCT Delhi Old Secretariat, Civil Lines Delhi-110 054.						

## PLANNING & PROGRAMMING COMMITTEE, NSC, DELHI

			I _	T	1
1.	Dr. Dinakar Kanjilal		7.	Dr. Vijayaraghavan M.	
	Director, Nuclear Science Centre,			Chariar	
	Inter-University Accelerator			Associate Professor	
	Centre (IUAC), Delhi			Centre for Rural	
	Aruna Asaf Ali Marg,	Chairman		Development and	Member
	Near Vasant Kunj,	Chairman		Technology	Member
	Post Box No. 10502,			Indian Institute of	
	New Delhi 110 067			Technology, Delhi	
				Hauz Khas, New Delhi-	
				110016	
2.	Dr. Nirupama Jaimini,		8.	Dr. Ruchira Ghosh	
	Director			Director, Crafts Museum	
	Department of Education (Central	Member		Bhairon Marg, Pragati	Member
	Institute of Education)	Member		Maidan,	Member
	University of Delhi			New Delhi-01	
	33, Chhatra Marg, Delhi – 110007				
3.	Prof. A. K. Wazalwar, Head		9.	Director General	
	Deptt. of Education in Science and			National Council of	
	Mathematics (DESM)			Science Museums	
	National Council of Educational	Member		Sector-V, Block-GN,	Member
	Research and Training			Bidhan Nagar,	
	Sri Aurbindo Marg, New Delhi-			Kolkata-700091	
	110016			Or his nominee	
4.	Dr. Jitendra Nagpal		10.	Shri D. Rama Sarma	
	MD, DNB, Sr. Consultant			Director,	
	Psychiatrist & Incharge			National Science Centre	
	Inst. Mental Health and Life Skills	Member		Pragati Maidan,	Member
	Educations			Near Gate No.1,	
	Moolchand Medcity, Lajpat Nagar,			Bhairon Marg,	
	Part-III, New Delhi-24			New Delhi – 110001	
5.	Dr. Arvind C Ranade		11.	Shri Vijay Shankar Sharma	
	Scientist 'E' (Astronomy)			Curator,	
	Vigyan Prasar	Member		National Science Centre	Member
	A-50, Institutional Area, Sector-62,	MEHIDEI		Pragati Maidan, Near Gate	MEHIDEI
	NOIDA-201309, U.P.			No.1, Bhairon Marg,	
				New Delhi – 110001	
6.	Prof. Hasan Jawaid Khan		12.	Shri Anurag Kumar	
	Editor, Science Reporter			Curator,	
	National Institute of Science			National Science Centre	Member
	Communication and Information	Member		Pragati Maidan, Near Gate	Secretary
	Resources			No.1, Bhairon Marg,	Secietal y
	Dr. K.S. Krishnan Marg, (Near Pusa			New Delhi – 110001	
	Gate), New Delhi-12				
		<u> </u>			<u> </u>

# LOCAL ADVISORY COMMITTEE, RSC, LUCKNOW

1	Dr. C.S. Nautiyal	Chairman	7	Shri M.S. Rana	Member
	Director			Assistant Director	
	CSIR- National Botanical Research			Basic Education	
	Institute			Siksha Bhawan	
	Rana Pratap Marg			58, Jagat Narayan Road, Near	
	Lucknow-226 001			City Station, Lucknow	
2	Dr. M. K. J. Siddiqui	Member	8	Shri Anupam Gupta	Member
	Secretary & Director			Director	
	Council of Science & Technology, UP			Lucknow Zoological Garden	
	Vigyan Bhawan, Suraj Kund Park			Banarasi Bagh	
	9 Nabiullah Road			Lucknow-226 001	
	Lucknow-226 018				
3	Shri R.N. Bhargava	Member	9	Mr. Brajendra Singh	Member
	Chairman-cum-Managing Director			Member of Management	
	ECOMEN Laboratories Pvt. Ltd.			Committee	
	H.O. Flats No. 5-8, 2nd Floor, Arif			Chain of Pioneer Montessori	
	Chamber-V			Schools & Colleges	
	Sector-H, Aliganj			PMS Hdqrs. 649 / 640,	
	Lucknow-226 024			Sector-3, Eldeco, Udyan-I	
				Lucknow	
4	Prof. Kuldeep Sahay	Member	10	Dr. Chandra Mohan Nautiyal	Member
	HoD, Dept. of Electrical Engineering			Sr. Scientist	
	Institute of Engg. & Technology			Birbal Sahni Institute of	
	Jankipuram			Palaeobotany	
	Lucknow-226 021			53, University Road	
				Lucknow- 226 007	
5	Director	Member	11	Shri D. Rama Sarma	Member
	Remote Sensing Application Centre			Director	(Ex-
	Sector G, Jankipuram, Kursi Road			National Science Centre	officio)
	Lucknow- 226 021			Pragati Maidan, Near Gate No.1,	
				Bhairon Road	
				New Delhi-110 001	
6	Prof. Sushil Kumar	Member	12	Shri Umesh Kumar	Member
	Operations Management Area			Project Coordinator	Secretar
	Indian Institute of Management			Regional Science City	y
	(IIM)			Sector-E, Aliganj Extension	
	Prabandh Nagar, Sitapur Road			(Ekta Vihar)	
	Lucknow- 226 013			Lucknow-226 024	

## LOCAL ADVISORY COMMITTEE, KPSC, KURUKSHETRA

01.	Prof. Anand Mohan Director National Institute of Technology Kurukshetra –136119	Chairman	07.	Prof. Anil Vohra Dean, Faculty of Science Kurukshetra University, Kurukshetra-136119	Member
02.	Shri Bhal Singh Bishnoi Additional Deputy Commissioner Mini Secretariat, Kurukshetra-136118	Member	08.	Mrs. Sunita Sevi District Education Officer, Kurukshetra- 136119	Member
03.	Dr. Arjava Sharma Director National Bureau of Animal Genetic Resources (NBAGR), Makrampur Campus, G.T. Road Bye Pass, Near Basant Vihar, P.O. Box No. 129, Karnal-132001	Member	09.	Shri Rishi Goel Principal, Geeta Niketan Awasiya Vidyalaya Salarpur Road, Kurukshetra – 136118	Member
04.	Shri Kiral Singh Chief Executive Officer, Kurukshetra Development Board Kurukshetra-136118	Member	10.	Dr. B.S. Bodla Chairman, University School of Management Kurukshetra University, Kurukshetra-136119	Member
05.	Shri Rajbir Singh Principal Scientist (SG) Haryana State Council of Science & Technology Govt. of Haryana Haryana-134109	Member	11.	Director, National Science Centre Pragati Maidan, Near Gate No.1 Bhairon Road, New Delhi-110 001	Member (Ex-officio)
06.	Shri Sudarshan Agrawal Managing Partner Agrawal Extrusions Pvt. Ltd. G.T. Road, Kurukshetra, Haryana	Member	12.	Dr. Raj Mehrotra Project Coordinator Kurukshetra Panorama & Science Centre Pehowa Road, Kurukshetra-136118	Member Secretary

