

SCIENCE OUTREACH RESOURCE CENTRE

Visit of Students and Teachers to CSIR-NCL on 20th December 2024

A group of 34 enthusiastic 9th-grade students, along with four teachers from Kendriya Vidyalayas from DIAT, Ganeshkhind, NDA, and RHE, visited CSIR_NCL and took part in the 'Find My DNA' workshop and also participated in the 'CSIR Jigyasa Scientific Aptitude Assessment' Program. The event was organised on December 20, 2024, from 9:30am to 12:00pm.

The workshop was part of the Prize Winning Program to award the winners of the CSIR Jigyasa interns who carried out two months internship program with the CSIR laboratories in close proximity. The online program organised by the CSIR Human Resource Development Group (HRDG) in association with the CSIR-Institute of Genomics and Integrative Biology (IGIB) under the CSIR Jigyasa program was a live telecast to the CSIR laboratories. All the CSIR labs carried out the hands on workshop followed by the Competency Mapping Exercise.

The online program initiated with the inauguration by Dr. Souvik Maiti, Director of CSIR-IGIB followed by the welcome address by Dr. Beena Pillai, Chief Scientist at CSIR-IGIB, who highlighted the significance of the Jigyasa initiative in building scientific aptitude and creating a strong foundation for the nation's future researchers. An inspiring session was conducted by Dr. Geethavani Rayasam, Head of CSIR-HRDG and Jigyasa Program. Her talk on "Competency" underscored the need for skill development and adaptability in scientific pursuits. Dr. Arya Siddhartam demonstrated the hands on experiments to the students.

At NCL, the CSIR-IGIB DNA kits distributed to the students created a 'wow moment when they saw their own DNA strands that they extracted from their own saliva samples. The students were thrilled to perform the practical applications of the scientific theories. The hands-on experience inspired curiosity and active participation among students. Following the demonstrations, students filled out the Scientific Aptitude Assessment. This evaluation aimed to measure their interest and understanding of scientific concepts introduced during the program.

Dr. Ashwin N.M.R., Scientist from the Biochemical Sciences Division explained the DNA extraction process that further enhanced the student's knowledge and brought clarity to their understanding on the importance and structure of DNA. Dr. Ashwin also answered intriguing questions from the students.

Dr. Wafia Masih, Senior Principal Scientist presented a video on the Structure of DNA and assisted the students during the hands on sessions by the students. The program ended in a series of NCL outreach programs under Jigyasa and explained how Jigyasa, a CSIR initiative, inspires young minds by organizing creative science and technology activities and competitions, encouraging students to explore the world of science.

Acknowledgements:

Dr. Ashwin, N. M. R., Mr. Chitnavis, the Security Officer, Security Guards, Mr. Sunil Pate, Mr. Sanjay and the housekeeping team, the Cafeteria Team Mr. Balaji Subramanian and Mr. Gati Nayak, Mr. Tejas and the team, Mr. Suraj, Mr. C. J. Jagtap, DIRC, and all those who contributed to the program directly and indirectly.

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Students / Teachers Feedback Form
Hands-on activity DNA extraction 20th Dec 24
(In association with CSIR and CSIR -^oIGIB)

Name of Student / Teacher giving feedback: Kartik V. Patar

Grade: IX

Gender: Male

Email Id: mittupatar.08@gmail.com

School Name: KV DIAT GIRINAGAR, PUNE

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes because first time I checked my DNA.</u>				
2. Was the procedure easy to follow?	<u>Yes it was little bit easy to do.</u>				
3. Did you spot the DNA after the extraction?	<u>Yes, I spot a thread like structure which is a DNA.</u>				
4. What did you learn about DNA from this activity?	<u>How we can find out DNA and precipitating DNA.</u>				
5. What was your favourite part of the activity?	<u>Adding Solutions in the Saliva Sample</u>				
6. Feedback on Competency Mapping Exercise	Excellent	Very Good	Good	Satisfactory	Not Satisfied
	<u>5</u>	4	3	2	1
7. How would you rate this experience? kindly tick	Excellent	Very Good	Good	Satisfactory	Not Satisfied
	<u>5</u>	4	3	2	1

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Name of Student / Teacher giving feedback: Nayana Ramesh

Grade: IX

Gender: Female

Email Id: shreya.rmesh@gmail.com

School Name: KV DIAT Gaurinagar Pune

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes I enjoyed the extraction activity it was new experience to learn more about DNA.</u>				
2. Was the procedure easy to follow?	<u>Yes the procedure ^{was} easy to follow</u>				
3. Did you spot the DNA after the extraction?	<u>Yes I spotted the DNA after the extra-action</u>				
4. What did you learn about DNA from this activity?	<u>I learned many things related to DNA from this activity such as - the things which could be identified by checking the org of a person. DNA depends on the surface of the substance.</u>				
5. What was your favourite part of the activity?	<u>my favourite part of the whole activity was the performance of the experiment.</u>				
6. Feedback on Competency Mapping Exercise	Excellent	Very Good	Good	Satisfactory	Not Satisfied
	<u>5</u>	4	3	2	1
7. How would you rate this experience? kindly tick	Excellent	Very Good	Good	Satisfactory	Not Satisfied
	<u>5</u>	4	3	2	1

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Name of Student / Teacher giving feedback: Parth H. Nagare

Grade: IX

Gender: Male

Email Id: parthnagare41@outlook.com

School Name: Kendriya Vidhyalay Gafleshkhind - Pune - 07

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	Because it was for the first time I have performed activity related to human				
2. Was the procedure easy to follow?	Yes the procedure easy to follow				
3. Did you spot the DNA after the extraction?	Yes! But it was afterwards broke into pieces				
4. What did you learn about DNA from this activity?	From this activity learnt the simplest steps to find DNA.				
5. What was your favourite part of the activity?	The favourite part of the activity was to observe the DNA.				
6. Feedback on Competency Mapping Exercise	Excellent 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent <input checked="" type="checkbox"/>	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: Abhaya Narayan Sahu

Grade: IX

Gender: Male

Email Id: abhinavsahu6@gmail.com

School Name: PM SHRI KV Ganeskhind

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	Yes, I felt quite excited.				
2. Was the procedure easy to follow?	It was quite easy.				
3. Did you spot the DNA after the extraction?	Yes, it looked very long for some reason.				
4. What did you learn about DNA from this activity?	I learnt many things, but not enough to write it here.				
5. What was your favourite part of the activity?	Sir explaining it and the isolation.				
6. Feedback on Competency Mapping Exercise	Excellent 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent <input checked="" type="checkbox"/>	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: Vaibhavae Chaturvedi

Grade: IX

Gender: Female

Email Id: Saavika.chaturvedi1934@gmail.com

School Name: Kendriya Vidyalaya Ganeshkhind

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes, it was interactive and I got learn something new.</u>				
2. Was the procedure easy to follow?	<u>Yes</u>				
3. Did you spot the DNA after the extraction?	<u>Yes</u>				
4. What did you learn about DNA from this activity?	<u>How to precipitate DNA</u>				
5. What was your favourite part of the activity?	<u>DNA Extraction Activity</u>				
6. Feedback on Competency Mapping Exercise	Excellent 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: Aastha Sinha

Grade: IX

Gender: Female

Email Id: Sinha8K14@gmail.com

School Name: K.V.S R.H.E PUNE.

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes, I enjoy the activity because I get to know many things about DNA.</u>				
2. Was the procedure easy to follow?	<u>Yes, the procedure is easy to follow by the given instruction.</u>				
3. Did you spot the DNA after the extraction?	<u>Yes, I spotted a cloudy thread like structure in the solution {That's DNA}</u>				
4. What did you learn about DNA from this activity?	<u>In this activity I get to learn about how can we precipitate our DNA by adding saline, isopropanol and lysis buffer solution.</u>				
5. What was your favourite part of the activity?	<u>My favourite part of the activity was when I saw my DNA in the mixed solution.</u>				
6. Feedback on Competency Mapping Exercise	Excellent 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: RIYA - VINOD - NAIK

Grade: IX

Gender: Female

Email Id: riyanaiik266@gmail.com

School Name: Kendriya Vidyalaya Range hills Pune

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes, because we saw our DNA from our saliva which was enjoyable</u>				
2. Was the procedure easy to follow?	<u>Yes, the procedure was easy to follow as it were only 5 steps.</u>				
3. Did you spot the DNA after the extraction?	<u>Yes, we spot DNA after extraction which was thread like structure</u>				
4. What did you learn about DNA from this activity?	<u>We learn that how by mixing lysis buffer, Isoproponal and our saliva we get to know about our own DNA</u>				
5. What was your favourite part of the activity?	<u>My favourite part of the activity was the extraction or see the thread like structure which was DNA</u>				
6. Feedback on Competency Mapping Exercise	Excellent <input checked="" type="checkbox"/>	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent <input checked="" type="checkbox"/>	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: Rajandini Rajendra Mile

Grade: IX

Gender: Female

Email Id: rajendramile@gmail.com

School Name: PM SRI Kendriya Vidyalaya RHE

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes, this so I enjoyed as we did experiments and got practical knowledge</u>				
2. Was the procedure easy to follow?	<u>Yes,</u>				
3. Did you spot the DNA after the extraction?	<u>Yes, I was not that much clean but I can spot</u>				
4. What did you learn about DNA from this activity?	<u>I learnt about how we can spot DNA and present in thread like structure</u>				
5. What was your favourite part of the activity?	<u>My favourite part was to spot my own DNA</u>				
6. Feedback on Competency Mapping Exercise	Excellent 5	Very Good <input checked="" type="checkbox"/>	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent <input checked="" type="checkbox"/>	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: Muskaan Jakhar

Grade: IX

Gender: Female

Email Id: muskaanjakhar@gmail.com

School Name: Kendriya Vidyalaya National Defence Academy

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes, I Never did anything like this before like Testing My DNA.</u>				
2. Was the procedure easy to follow?	<u>Yes</u>				
3. Did you spot the DNA after the extraction?	<u>Yes very clearly.</u>				
4. What did you learn about DNA from this activity?	<u>I learned that at Home if you want you can Check your DNA at Home and It's So interesting.</u>				
5. What was your favourite part of the activity?	<u>finding Testing My DNA by the given kit & Question. [Questions were so interesting and Logical as well as easy to Answer].</u>				
6. Feedback on Competency Mapping Exercise	Excellent <input checked="" type="checkbox"/> 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent <input checked="" type="checkbox"/> 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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Name of Student / Teacher giving feedback: Aarav Suryawanshi

Grade: IX

Gender: Male

Email Id: mamta.v.suryawanshi@gmail.com

School Name: PM Shri KV NDA PUNE - 411023

1. Did you enjoy the DNA extraction activity and why? (Yes/No)	<u>Yes, as the activity was very fascinating</u>				
2. Was the procedure easy to follow?	<u>Yes, the procedure e was easy to follow</u>				
3. Did you spot the DNA after the extraction?	<u>Yes, I spotted the DNA after the extraction.</u>				
4. What did you learn about DNA from this activity?	<u>I learnt that WE can extract DNA from 2 Solutions : 1 is the Blue way used for lysis and the other 1 was the Yellow to pteciation.</u>				
5. What was your favourite part of the activity?	<u>My favourite part of the activity was to the extraction activity of the DNA.</u>				
6. Feedback on Competency Mapping Exercise	Excellent 5	Very Good <input checked="" type="checkbox"/> 4	Good 3	Satisfactory 2	Not Satisfied 1
7. How would you rate this experience? kindly tick	Excellent <input checked="" type="checkbox"/> 5	Very Good 4	Good 3	Satisfactory 2	Not Satisfied 1

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