



LEARNING IN A CRISIS

This is the big enough moment that the world can no longer ignore. We are in the middle of a crisis. But what if this can be the start of a new story? This is our chance to change the way we think, live & **learn**. The schools are shut, exams postponed & everyone is stuck at home. Though most schools are offering some online learning, here's something you can do at home:

1. Multidisciplinary projects:

Take up learning projects that encompass more than one subject. Choose something you are excited about & go deep!

2. Write a book review:

Not just

a creative writing activity, use it to study the emotions, their causes, skills, relationships & interactions between the characters.

3. Conduct an Informational Interview:

If you have thought about what career you wish to pursue, use this time to connect with professionals working in that field. They too are probably cooped up at home and awaiting some social contact.

4. Video it:

Create videos! Not the silly TikTok ones, but use a camera for writing a video essay or to create a video tutorial.

5. Focus on physical fitness:

You

can pick any of the online exercise tutorials. Don't let the shutdown make you miss PE class.

6. Establish a self-care routine:

In times like these, anxiety & tempers are bound to rise. Keep yourself calm & take care of your mind. Practice relaxation & be rational. Communicate about your fears. Take this time to be kind to yourself.

7. Collaborate:

No fight can be fought alone. Use all those social media apps to work together. Decide group projects you can take up; divide tasks, check-in regularly, do your bit & collate the work done by everyone.

Online learning resources

Screen Recording- [Screencastify](#)

Design Infographic- [Canva](#)

Quizzes- [Socrative](#), [Quizlet](#), [Quizizz](#)

Collating Ideas- [Wakelet](#)

Formative Feedback- [Seesaw](#), [Nearpod](#), [Yacapaca](#)

Online Teaching- [Zoom](#), [Teams](#), [Google Classrooms](#), [Nearpod](#)

Game-based Learning- [Kahoot](#)

Social Learning- [Flipgrid](#), [Padlet](#), [Teams](#)

Readaloud- [Storyline Online](#),

Presenting- [Prezi](#), [Haiku Deck](#), [Stop Motion Studio](#), [Thinglink](#)

Reference resources- [Google Earth](#), [TEDx Talks](#), [YouTube](#),

Revision- [MindMeister](#), [Mindmap](#), [Popplet](#), [ShowMe](#)

Language Learning- [Memrise](#), [Duolingo](#)

Top Skill: Learning Agility

Learning agility is the ability to continually & rapidly learn, unlearn, & relearn mental models & practices from a variety of experiences, people, & sources, & the capacity to apply it in new & changing contexts to achieve desired results.

*Continued from Volume 1



Explore more: India's Famous Geneticists

Dr. M.S. Swaminathan

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CAREER IN FOCUS: GENETICS

In the current times, Genetics is coming forth as one of the most important fields.

A geneticist is a biologist who studies genetics, the science of genes, (including how they are inherited, mutated, activated, or inactivated) heredity, and variation of organisms. They often study the role of genes in disease and health.

Qualifying degree: B.Sc / B.Tech

Eligibility: 10+2 (PCB) with min 50% marks

Entrance Exams: JEE, SRMJEEE, etc

Salary: Starts at ₹20,000 pm

Top institutions in India:

- 1) Institute of Genetic Engineering, Kolkata
- 2) SRM Institute Of Science & Technology, Chennai
- 3) Guru Nanak Dev University, Amritsar
- 4) The Oxford College of Science, Bengaluru

Top institutions abroad:

- 1) University of Chicago, United States
- 2) University of California- Berkeley, United States
- 3) University of Toronto, Canada
- 4) Harvard University, United States

Field specific skills:

- Knowledge of biology
- Knowledge of chemistry
- Mathematical skills

Transferable skills:

- Teamwork & communication
- Higher stress tolerance
- Analytical skills
- Attention to detail
- Problem solving
- Critical thinking
- The ability to understand complex concepts
- Innovation
- IT skills
- Patience & persistence

*For more information refer to: www.sarvgyan.com , www.collegedunia.com , www.idp.com

Even what people take to be their most personal desires are usually programmed by the imagined order.
-Yuval Noah Harari, Sapiens

TÊTE-À-TÊTE WITH A GENETICIST



Dr Hamsa Puthalakath

Dr Puthalakath is an inspiration to anyone who dreams big. A boy from a small village in rural India, he was the first in his family to go to the University. He started out with a degree in agriculture, as it was easy to become an agriculture officer in those times. But life had bigger plans for him and his interest in statistics, economics & biochemistry made him switch to molecular genetics for his PhD. He moved to Australia in 1994, and worked as a postdoctoral fellow at Monash University and the Walter & Eliza Hall Institute before moving to La Trobe in 2007.

A co-author of a groundbreaking book, he is presently an Associate Professor in the Dept. of Biochemistry & Genetics at La Trobe University, specializing in apoptosis, or programmed cell death. He uses CRISPR gene editing technology to identify the human receptor that leads to immune cell death.

Q. What or who is a geneticist?

Someone who studies and understands genes, inheritance & variations in organisms.

Q. What does it take to become a geneticist?

- Patience & dedication
- Willingness to fail
- Innovation
- Time management
- Insight & empathy

Q. What are some interesting options for geneticists?

Genetics is a field where man has barely scratched the surface. Few of the specialization options include Research, Food & Beverage Industry, Pharmaceutical Industry, Eugenics, Wildlife Conservation, Forensic expert, Genetic counselor, Vaccination, etc.

Q. How much does a geneticist typically earn?

The profession offers very few application opportunities and is more research oriented. So jobs after just a bachelors degree pay around 20 thousand but the salaries for higher qualifications start from 1 lakh a month.

Q. What are the pros and cons of studying genetics?

Pros:

- It is a very niche career choice
- Sky is the limit for research opportunities and there is a tremendous possibility for growth.
- It provides a unique opportunity to make a difference to humanity.
- It is perfect for people who love to work indoors.
- It offers a very high salary (top 25% highest paid careers).
- It exposes one to cutting-edge technology & practices.

Cons:

- Research may not lead to expected results.
- It is very competitive field.
- It has very long working hours.

Q. Are there any specific subjects that students should focus on while in school?

Biology, chemistry and mathematics are the most important subjects.

Q. What are the things every aspiring geneticist should do before starting BSc. Genetics?

- Concentrate on software skills
- Start studying cell biology. It is the root of genetics
- Develop your organization skills
- Focus on health & mindfulness

Q. Is there a growing demand in India for this profession?

Yes. Genetics is a career of the future. With advancing technology, more & more companies as well as the government are all willing to put money into research.

Q. What message would you give for young aspiring geneticists?

Science is like an extreme adventure. It's a little on the edge - you never know when you are going to fall off the cliff, and you have to take risks. Scientists live with the fact that other people might be working on similar things, and you may get scooped. But the payoff is the opportunity to do something of real significance. We all have to follow our own path, our own passion in life.

Q. How does AI contribute to the field?

AI provides the tools needed to analyze the data to understand patterns in the genes. Automation reduces the human effort in mundane and routine tasks.