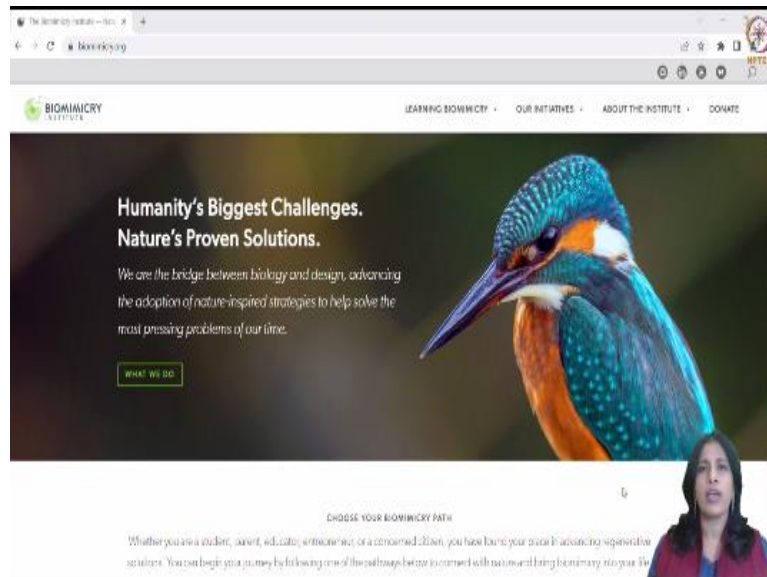


Introduction to Biomimicry
Prof. Mrinalini
Department of Multidisciplinary
Indian Institute of Technology-Madras

Lecture - 07
Learning Resources - Biomimicry Institute

(Refer Slide Time: 00:16)



So next what we are going to do is to look at a very important resource, a resource that is very useful for all aspiring biomimics. This is the website of the Biomimicry Institute. Now you may wonder why are we looking at a website as part of the course. Well, you will soon see why. Because this website has a wealth of information on becoming a biomimic, on learning more about biomimicry, and on developing your practice of biomimicry.

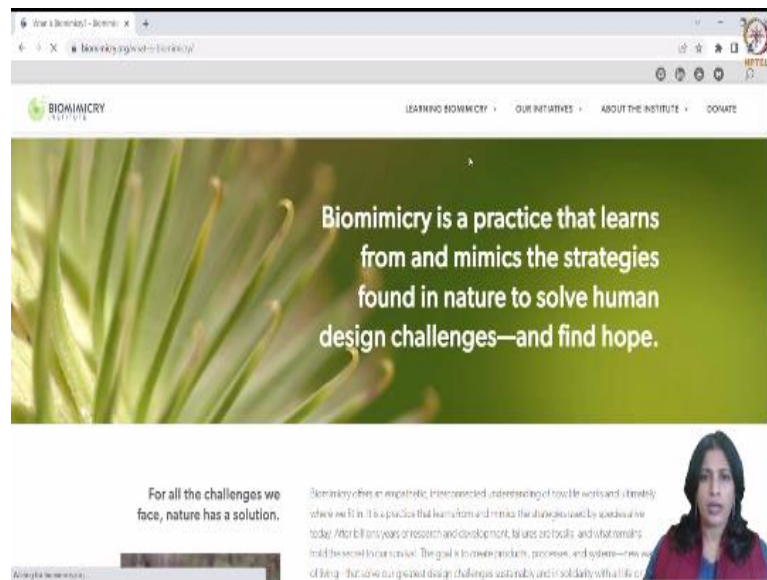
So, whether you are a student, whether you are a learner, whether you are a teacher, whether you are an entrepreneur, you are an educator and innovator, you will find that this website gives you something that you can use in order to develop your practice of biomimicry, gain more knowledge of biomimicry, and generally learn more about the world of biomimicry.

Also given the constraints of time in this course, there are some parts that we may not be able to cover fully because biomimicry is a vast subject. But we want to make sure that you have the tools, you have the resources available to you in order to continue in

your journey of biomimicry. So let us get started. The website of the Biomimicry Institute. This is the website.

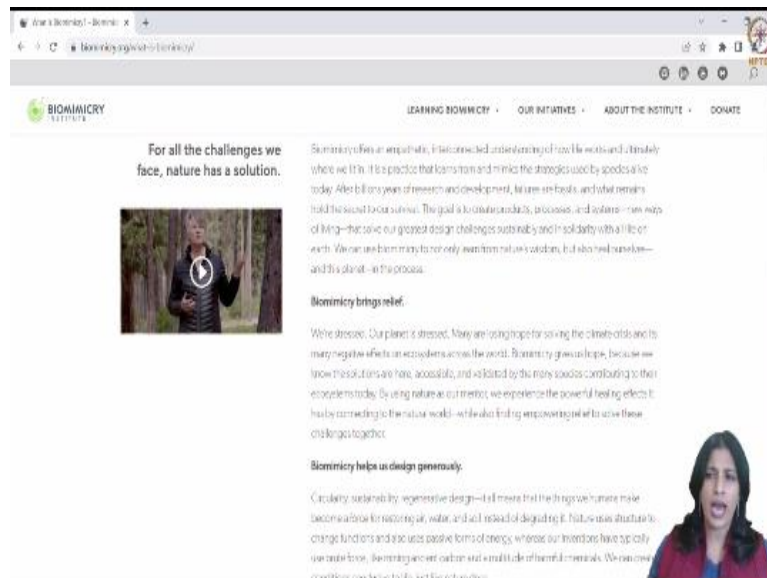
The URL is biomimicry.org. There are several sections that you will see here. Now I am not going to go through each of these sections. You can go through them when you have the time. I am going to focus on the learning biomimicry part of this website.

(Refer Slide Time: 02:19)



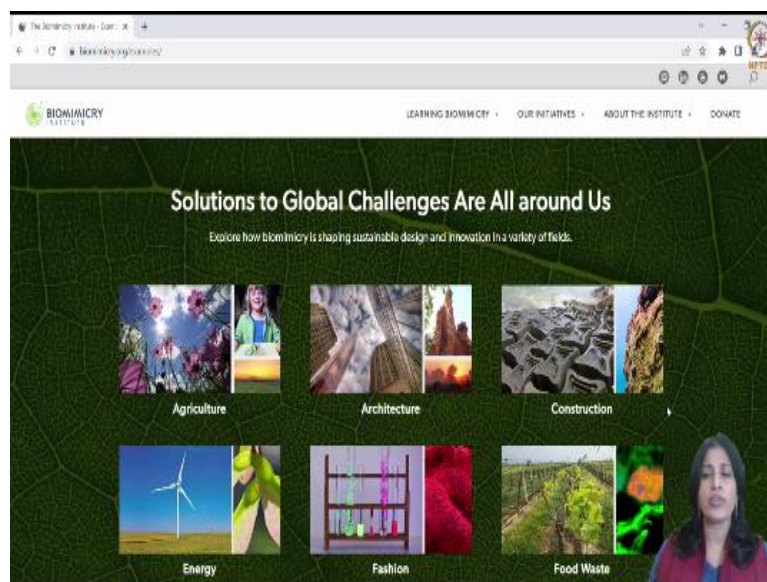
Now if you click on under learning biomimicry, if you click on ‘what is biomimicry’, it takes you to a page that gives you an excellent starting point to start learning biomimicry. Whether you know it does not matter, whether you are a fresh learner or you know something about biomimicry, it really does not matter because this is a very good starting point.

(Refer Slide Time: 02:36)



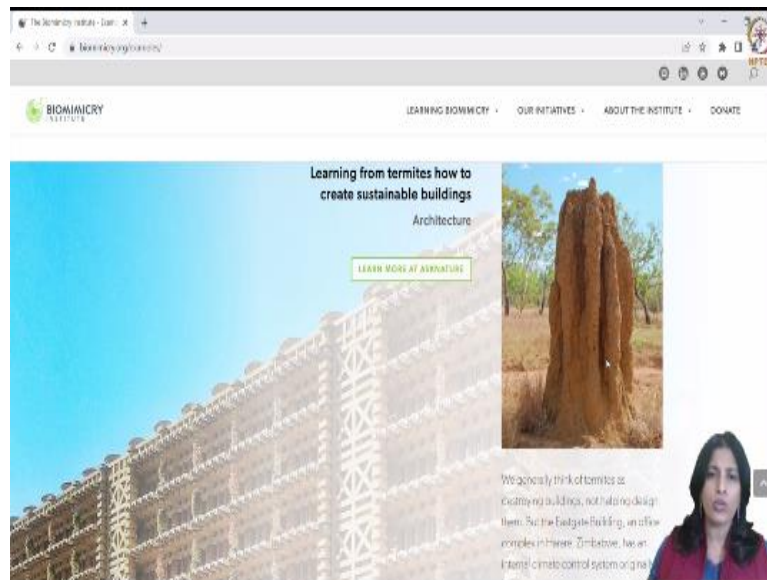
It has some, it has the description of some key concepts. It highlights some important things that you need to know about biomimicry, the essential elements of biomimicry, some videos that you can watch, and also some words, you know, keywords that you need to learn about biomimicry. So that is the first page that you will see. You will also see a page called biomimicry examples.

(Refer Slide Time: 03:08)



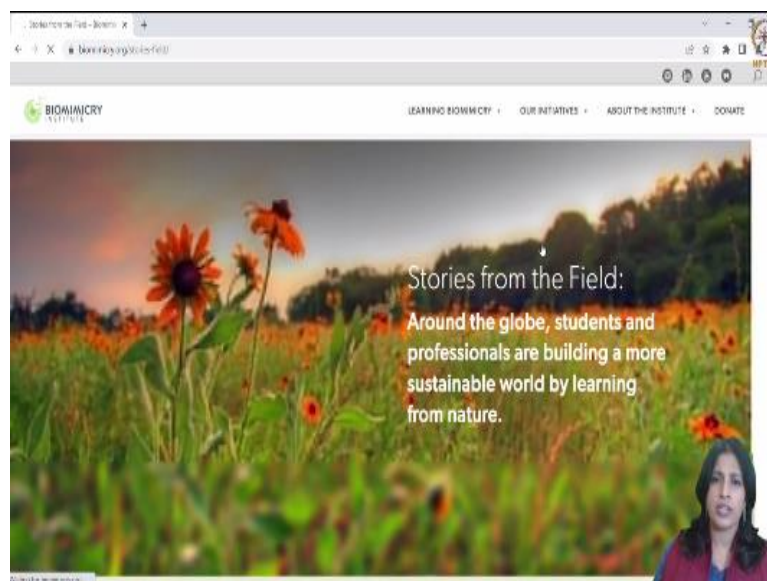
Now what they have, the Biomimicry Institute has done is they have compiled a few stories on biomimicry from various domains and industries. And you can look at each of them in order to find out how biomimicry has been used in various domains by various teams, entrepreneurs, and innovators.

(Refer Slide Time: 03:29)



You will notice here that in each of these it says 'learn more' and 'Ask nature'. Now 'Ask nature' is the sister website of the Biomimicry Institute. We will be spending more time looking at 'Ask nature', how to use 'Ask nature' etc. Ask nature provides a set of tools and resources that you can use as a biomimic. We will look at that in greater detail in a subsequent session.

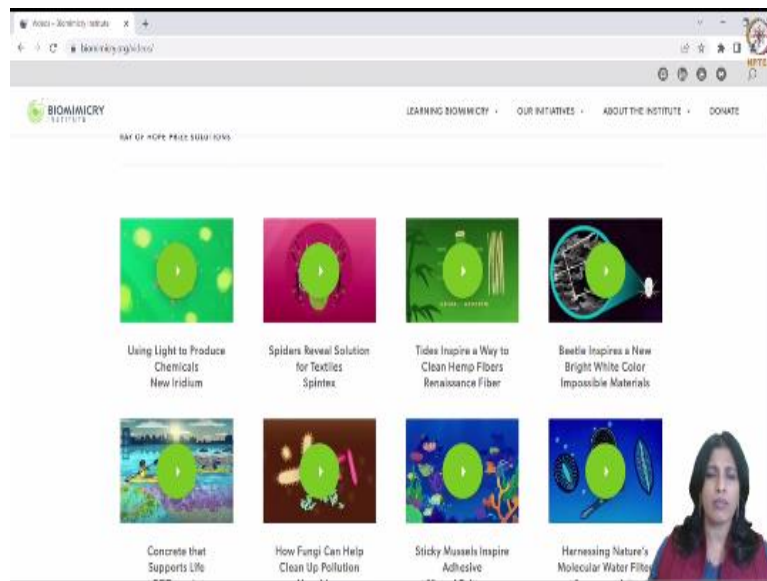
You will also find here additional stories from the field in terms of how folks around the world are using biomimicry. What are they doing with it in their communities, etc. **(Refer Slide Time: 04:09)**



So you will see what people have done, what people are doing, and you could use the same in your community if you like. I will come back to the resources part in a bit.

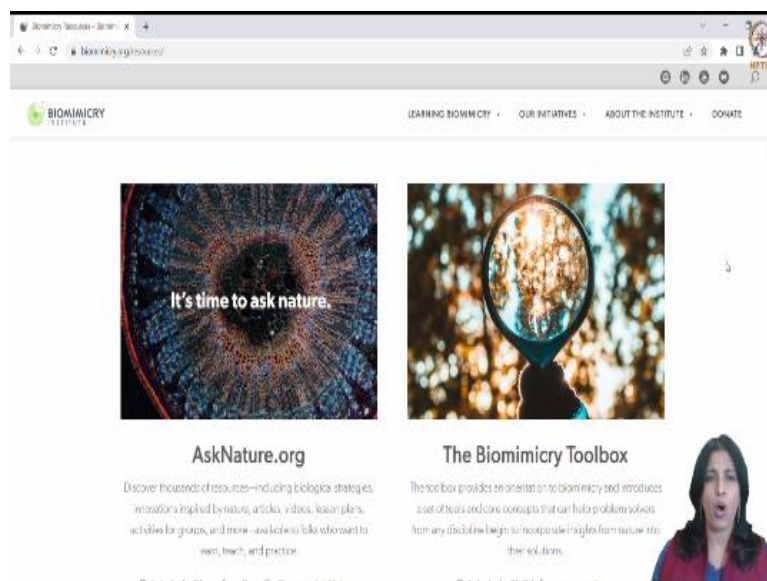
The videos of course give you an excellent compilation of videos that you can watch to start understanding biomimicry better.

(Refer Slide Time: 04:31)



Whenever you have the time, you can just you know watch one or two videos. And believe me, they will definitely give you a fresh perspective on biomimicry and what the possibilities it offers are. The blog, of course, will give you new perspectives about biomimicry, as well as news from the world of biomimicry. Now let us go back to the resources section, the one that I spoke to you about earlier.

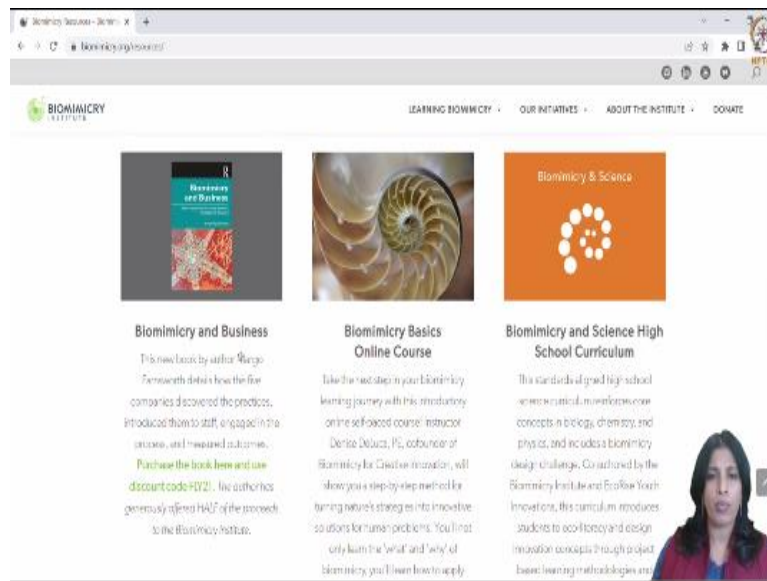
(Refer Slide Time: 05:07)



So, the resources section is kind of a one-stop shop, if I may use the word, a set of tools, set of resources, materials on biomimicry. Excellent starter pack for anyone

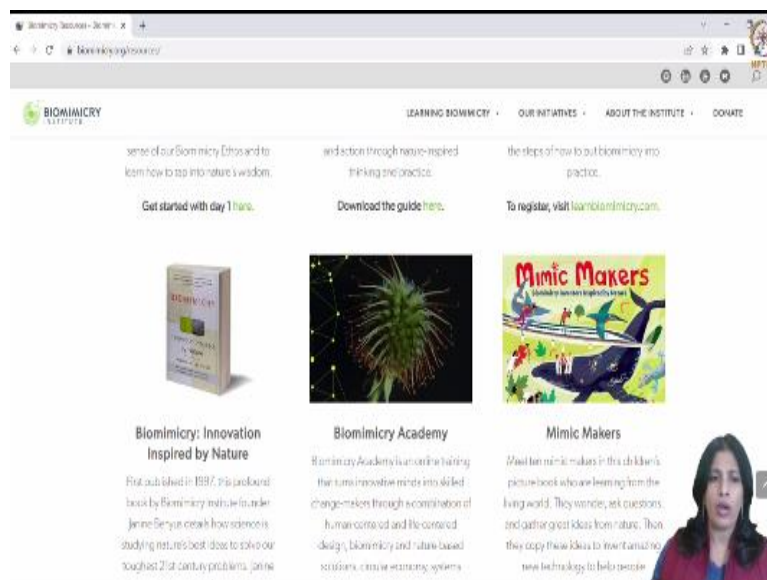
who wants to start learning biomimicry. Now here, I am going to scroll right to the bottom and then work my way to the top.

(Refer Slide Time: 05:33)



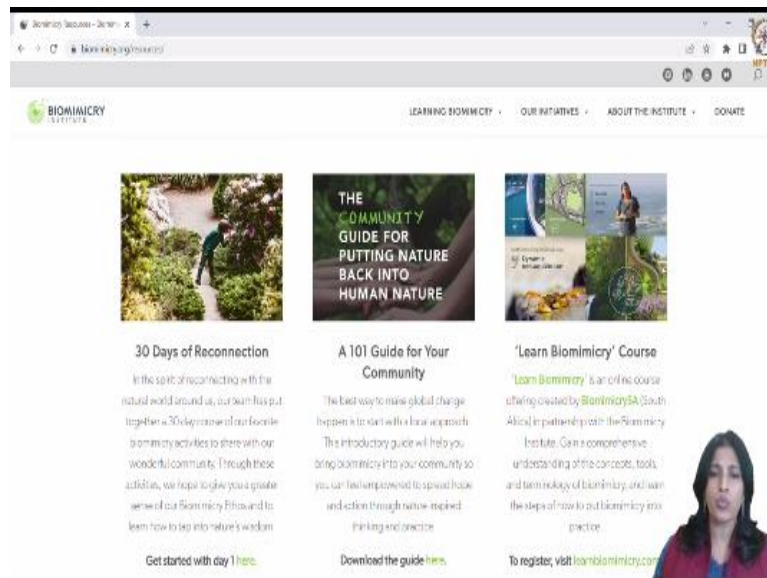
You will find courses on biomimicry that are being offered by various Institutes.

(Refer Slide Time: 05:40)



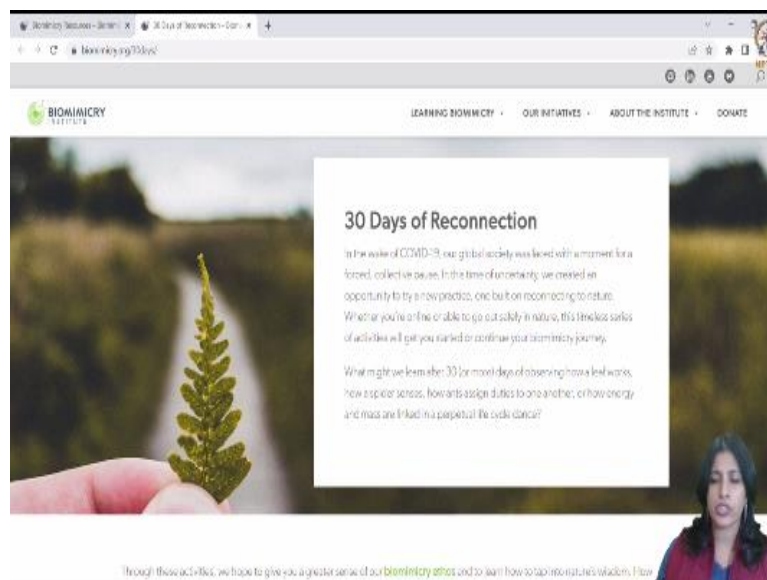
You will find books that are recommended for a beginner.

(Refer Slide Time: 05:48)



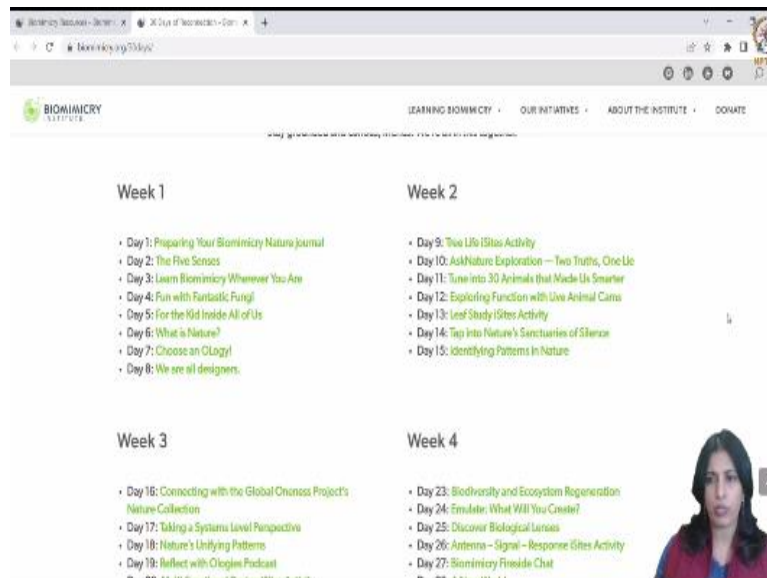
You will also find a guide to how communities are using biomimicry. How can you use biomimicry in your community to start sparking change? I want to call your attention now to this resource which is the 30 days of reconnection and which sounds very interesting.

(Refer Slide Time: 06:11)



And what they have done here is, given you have a plan, a schedule for four weeks, to reconnect with nature, to start getting into the spirit of biomimicry.

(Refer Slide Time: 06:18)

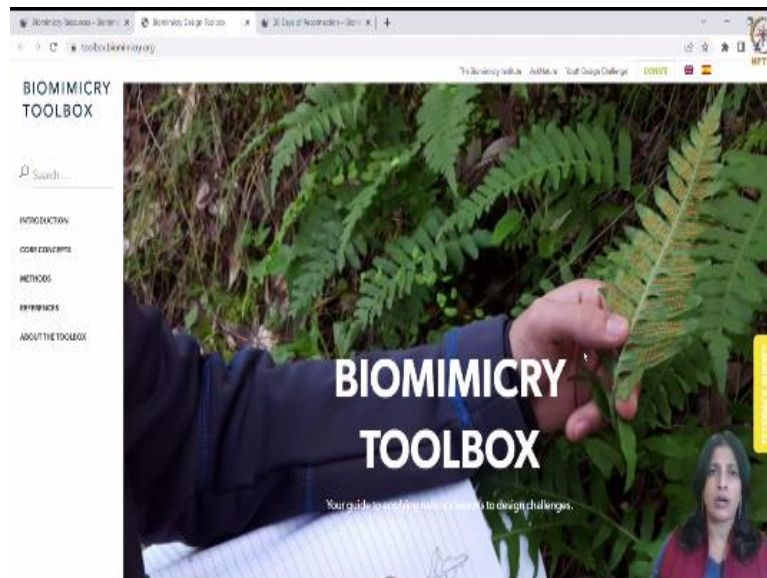


So you can start doing this and over the period of four weeks one activity per day in order to imbibe in yourself the spirit of biomimicry. So if you look at any of these activities, it will actually give you what you need to do. What it is and they encourage you to maintain a journal in order to record what you did and your observations and thoughts, etc. So, this is what the 30 days of reconnection is.

If you have the time and the inclination, it is a wonderful way to get started on biomimicry. Let me go back to the resources page. You will find a link to AskNature.org which I have already mentioned to you is the sister website of the Biomimicry Institute. And we will look at AskNature.org in much greater detail later. Let us come to the biomimicry toolbox here.

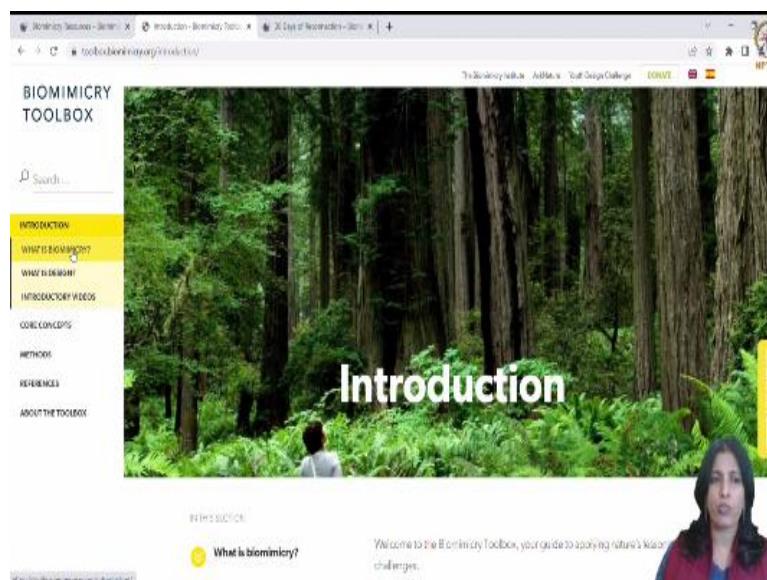
Now the biomimicry toolbox is the one that I would really like you to pay attention to as a beginner.

(Refer Slide Time: 07:37)



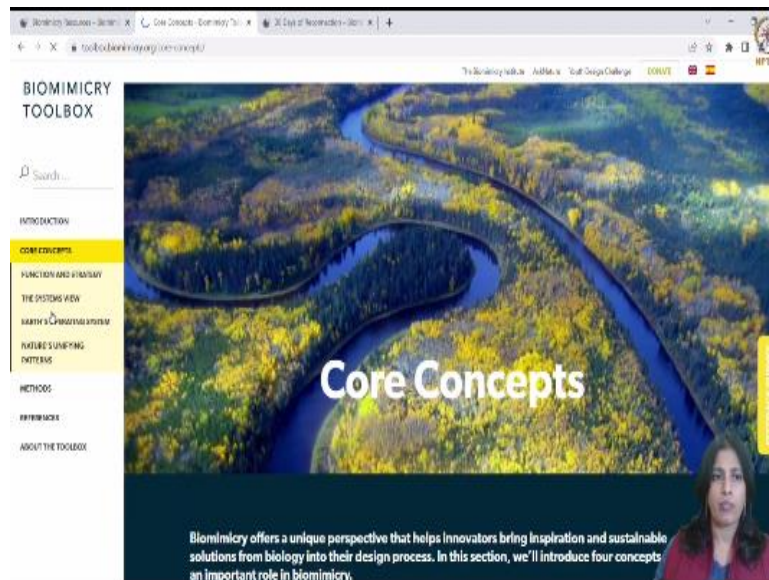
It is a very good starter pack for anyone who wishes to learn biomimicry. It has got a bunch of tools and frameworks and it explains the concepts that you need to get started as a biomimic.

(Refer Slide Time: 07:58)



The introduction, of course, gives you what is biomimicry, what is design, and a compilation of videos that you can start watching.

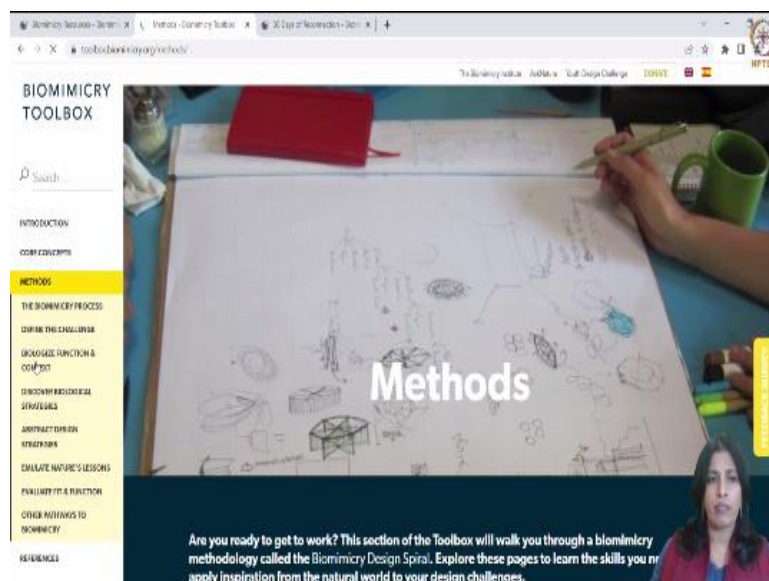
(Refer Slide Time: 08:06)



Then you have the core concepts many of which we will cover during this course, function and strategy. The system's view as a biomimic. Earth's operating system, we will shortly see what that means. Nature's unifying patterns, which we briefly introduced earlier during this session. So, you can, and in each of these sections you will find that there will be some, there will be a lot of, it is not just a bunch of text.

They have some additional information, they have some worksheets that you can use, which you will be actually able to use to apply to something, put them to practice.

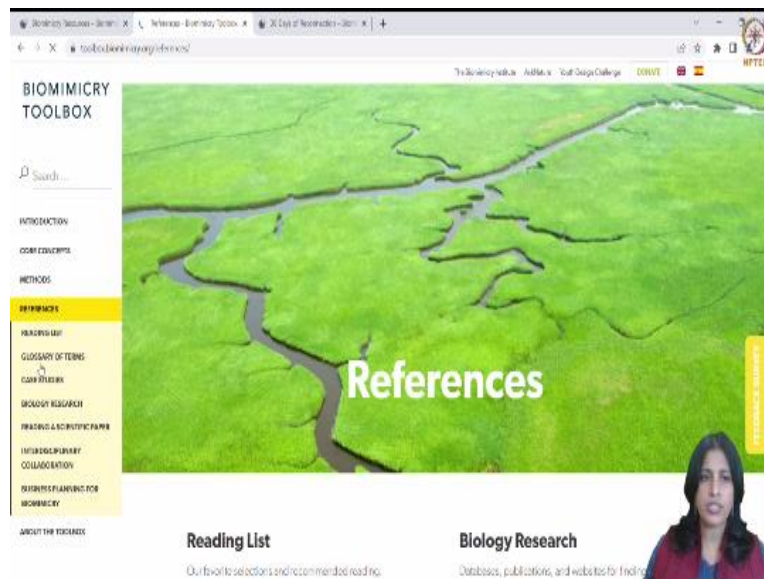
(Refer Slide Time: 08:51)



Then, of course, are the methods which is the biomimicry spiral which we again were briefly introduced to earlier in this session. Now each of these steps is explained in great detail. There are also worksheets and examples to help you understand how this

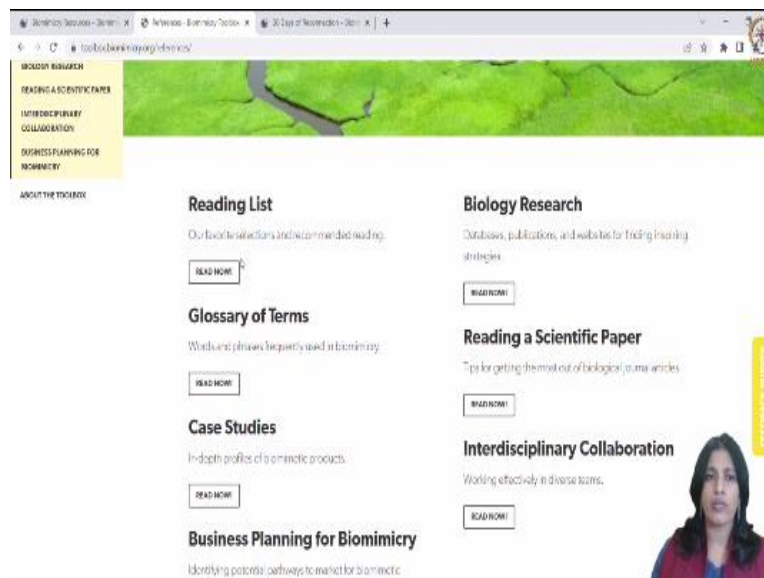
step works and how to apply the process. It is all available right here for you. Then you have the references section.

(Refer Slide Time: 09:20)



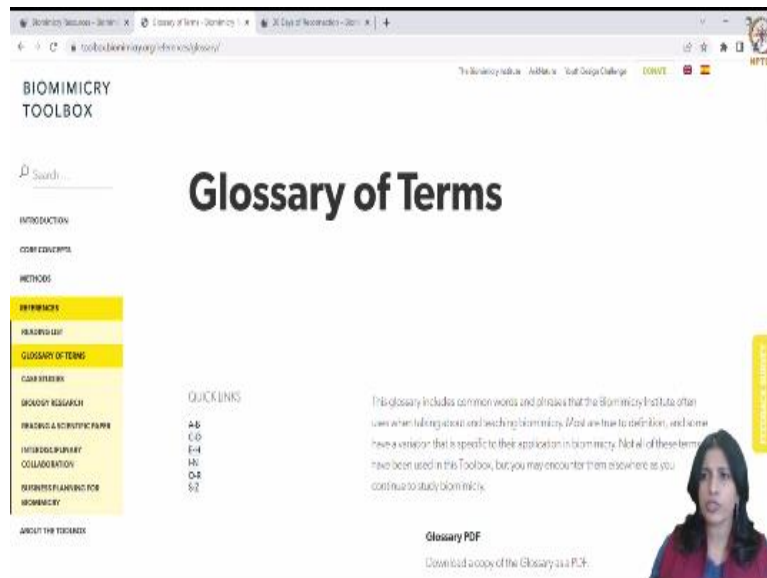
Now, this is a section that I will urge you to not ignore at all because this can open up the doors to a lot of knowledge, to a lot of learning for you as a biomimic.

(Refer Slide Time: 09:38)



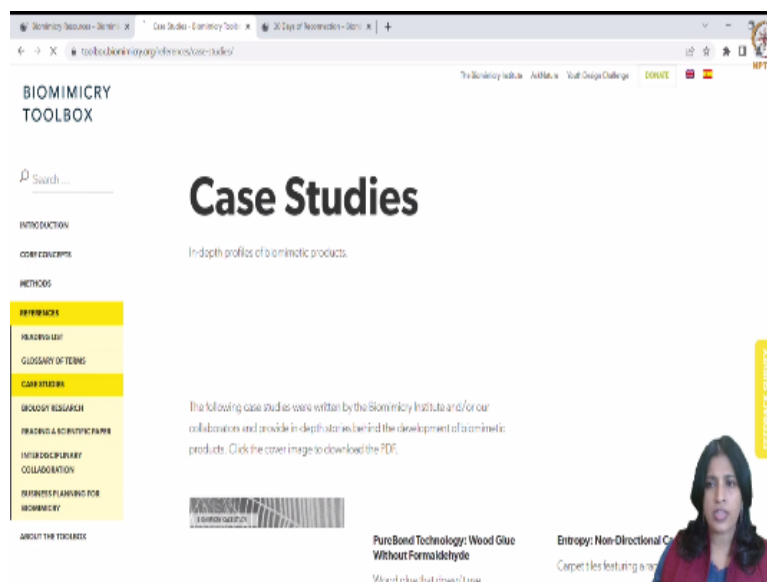
So, there is a reading list organized by subject, various books on biomimicry and related subjects. You have them right here.

(Refer Slide Time: 09:49)



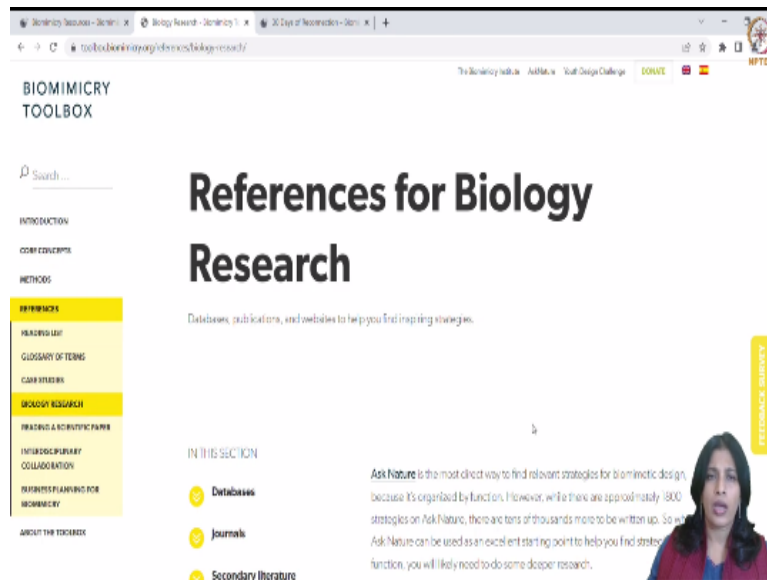
Then there is a glossary of terms that has the common words and phrases that you will encounter as you start learning biomimicry. It is available as a downloadable as well for you.

(Refer Slide Time: 10:03)



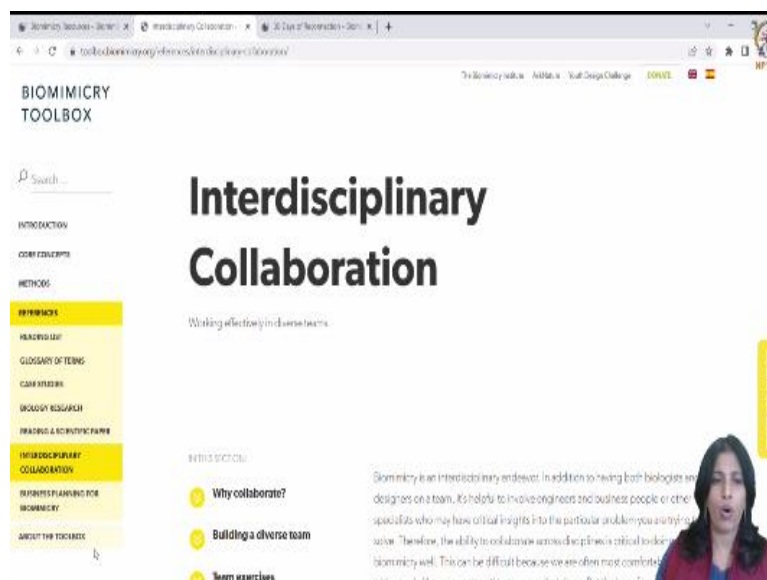
Then some case studies for you. These case studies are pretty detailed, by the way. Case studies for you to understand how a team or how an entrepreneur or an innovator applied biomimicry in order to come up with a product, process right here.

(Refer Slide Time: 10:25)



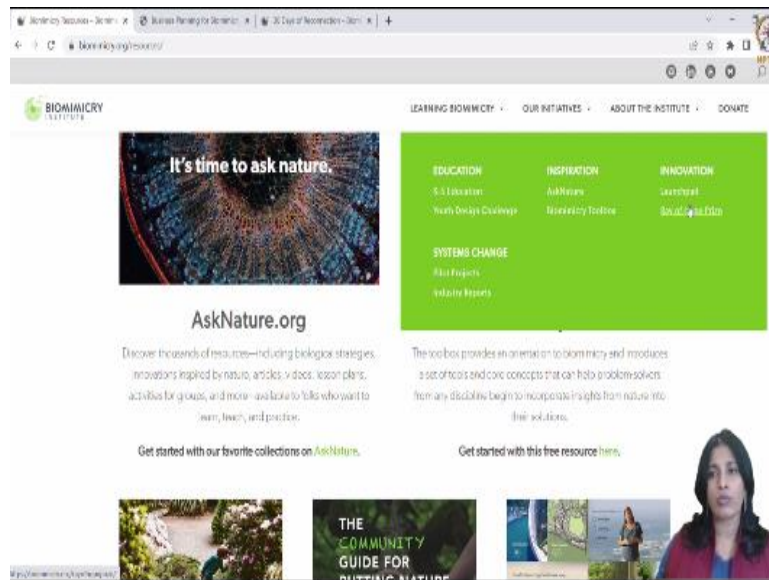
There is a section on, you know, biology research because in case you want to look at organisms, how do you find out where organisms are, etc. How do you learn more about organisms? It is available right here for you.

(Refer Slide Time: 10:43)



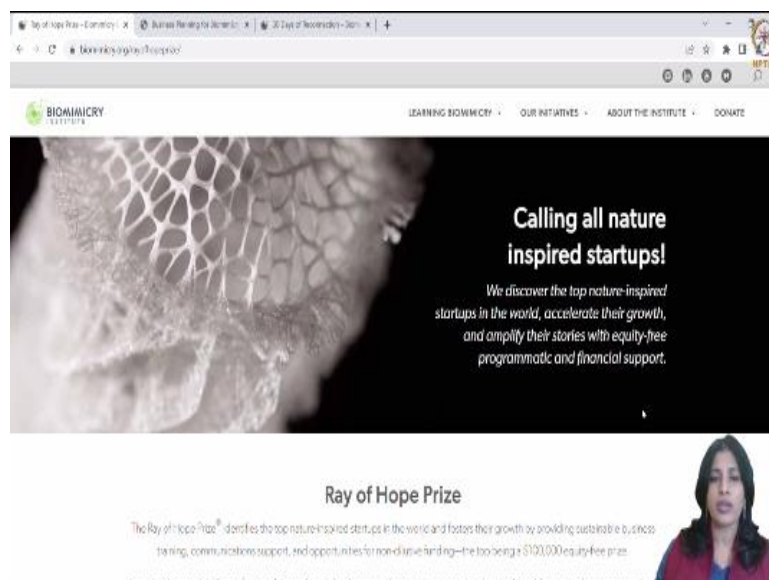
And there is also some information available on how you collaborate in order to create a successful biomimicry practice and how you can create a business out of biomimicry. So that is the toolbox for you. A very good compilation of tools, resources, and frameworks that you will need to get started in your journey of biomimicry.

(Refer Slide Time: 11:21)



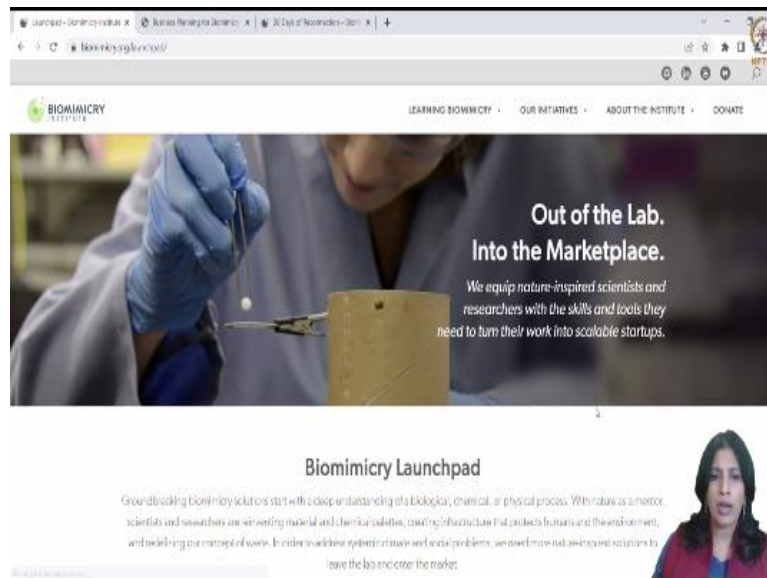
I also want to call your attention to a couple of additional things here, which are the launch pad and the Ray of Hope Prize, which you may have briefly heard about in the previous session.

(Refer Slide Time: 11:37)



Now the Ray of Hope Prize is \$100,000 prize that is given to teams that come up with an out-of-the-box innovation using nature as the inspiration. So, it is not just the prize, they also give you mentorship. They give you help in order to take the innovation forward. So that is the Ray of Hope prize for you.

(Refer Slide Time: 12:06)



You also have the Launchpad, which is again an initiative to help teams, entrepreneurs, researchers and scientists turn their innovations, their nature-inspired innovations into a startup, and they give you help in order to do that as well. So that is the biomimicry Institute's website. What I have done right now is just given you a very brief overview of what the website contains. Please take some time to go through it. And definitely do use it to complement your learning of biomimicry.