**Video: Creativity and Science: An Introduction**

Hello and welcome to Creative Science Online. During the next four weeks, we're going to be exploring just how fundamental creativity is to science and how to incorporate it into your science teaching practice. When I ask a room of people to name creative subjects, the list is always the same. I'm sure you can imagine: art, music, drama, languages. Science is never mentioned, despite the fact that these audiences know I'm in a room to deliver a workshop on creative science. So, let's take a moment to reflect on just how vital creativity is to the sciences. I like to think of creativity as the engine of science. It's the driving force that moves scientific thinking forward, generating new ideas, enabling the familiar to be seen in a new light, and expanding what we imagine to be possible.

However, creativity isn't just one thing; it has many different aspects. It is how we understand and process information, and how we express what we know to ourselves and others. Throughout this course, we will explore different elements of creativity and how we can bring all of these into science teaching practice. Today we will start with creative thinking. Without scientists having the ability to use reason and logic to think innovatively, many of the theories we use to understand the world would simply not exist: evolution, gravity, relativity, radioactivity, plate tectonics are just some of the concepts that arose from people's ability to think creatively about how the world works. This relationship between science and creativity has long been recognised by others.

Here are just a few examples of scientists recognising the connection in their own words. One example we are particularly keen on at Dynamic Earth is in the relation to the work of James Hutton, an individual whose discoveries are not widely known, but yet they laid the foundations of modern geology. In many ways, he was the world's first Time Lord. A key stimulus for his work was a visit to a place called Siccar Point -- a rocky promontory along the southeast coastline of Scotland, between North Berwick and Berwick-upon-Tweed. Watch the next video and put yourselves in the footsteps of James Hutton. The year is 1788 and you arrive at Siccar Point by boat. What you observe here and how you interpret this information will ultimately lay the groundwork for understanding the age and origin of the Earth as we know it today. What do you see? Can you notice patterns in the rock? Are there different rock types or are they all the same? What do you think might have happened here to shape the rocks? Note down some ideas as you explore Siccar Point.