

Trace Fossils

Slide Number	Title	Information	Questions for students
2	<p>Trace Fossils What are they, how do they form, what do they tell us about past environments</p>		
3	<p>What gets fossilised? Picture of three people walking on a beach</p>	<p>When skeletons, bones or other hard parts of creature's bodies get fossilised they are called body fossils. When evidence for a creature interacting with an environment get fossilised, e.g. footprints, it is called a trace fossil. This is how we know a creature existed even if it's body isn't fossilised.</p>	<p>Q. If a large wave washed over the beach what kinds of things would get fossilised? A. Bones of humans and their footprints Q. What kind of traces do we see in the modern world that tells us a creature has been in an environment?</p>
4	<p>Everyday trace makers Picture of a leaf and a trail</p>		<p>Q. What kind of creature made this trace?</p>
5	<p>Everyday trace makers Picture of a leaf with a trail and a caterpillar</p>		<p>A. A Caterpillar feeding on the leaf</p>
6	<p>Everyday trace makers Picture of muck in the grass</p>		<p>Q. What kind of creature made this trace?</p>
7	<p>Everyday trace makers Picture of muck in the grass and earthworm</p>		<p>A. Earthworm cast – soil ejected from the digestive tract of a worm as it burrows and feeds in the soil</p>
8	<p>Everyday trace makers Picture of footprints on a beach</p>		<p>Q. What creature made this trace? Q. Is there evidence for more than one creature here?</p>
9	<p>Everyday trace makers</p>	<p>Sometimes trace fossils give us</p>	<p>A. Human and a dog</p>

	Picture of footprints on a beach, picture of man and a dog	evidence that two or more creatures were interacting with each other and the environment at the same time. This can teach us about animal relationships.	
10	Everyday trace makers Picture of scratchings on a log		Q. What is the trace here? A. Scratches Q. What creature made this?
11	Everyday trace makers Picture of scratchings on a log and a picture of a badger		A. Badger
12	Types of trace fossils Tracks and Trails	When palaeontologists study trace fossils they look at four common types. 1. tracks – individual prints 2. trail – whole body trail	
13	Types of trace fossils Burrows and borings	3. burrow – a hole or tunnel formed in soft sediment like sand or mud 4. borings – a hole or tunnel formed in something very hard like rock or wood	
14	Types of trace fossils Coprolites	There are other types of trace fossils too. This is a fossil coprolite.	Q. What is this? A. A fossil poo!
15	Test Picture of tracks		Q. What kind of trace fossil is this? A. A track – insect footprints
16	Test Picture of bored wood		Q. What kind of trace fossil is this? A. Boring

<p>17</p>	<p>Test Picture of fossilised dinosaur nest/eggs</p>		<p>Q. What kind of trace fossil is this? A. Eggs – a dinosaur nest</p>
<p>18</p>	<p>How easy is it to make a trace Who made it?</p>	<p>These traces were all made by the same creature.</p>	<p>Q. Do you think it is easy or hard to make a trace? Q. What creature made these traces? A. A Bird Q. Why do the traces look different? A. The bird was walking across different surfaces Q. What is the different between these surfaces? A. Some are wet and some are drier. Q. Is it easier to make a footprint in wet or dry sediment? A. It needs to be a bit wet but not too wet. Q. What makes a good trace? A. Detailed, defined, stays intact Q. What did this trace tell you about the creature? A. It had four long pointed feet, three at the front and one at the back, it may have had claws/talons</p>
<p>19</p>	<p>One animal = different traces Picture of a centipede and two pictures of traces</p>	<p>One animal can create traces which look very different. If a creature is walking on soft dry sediment it's footprints will look less defined, compared to if it is walking on more firm and slightly wet sediment.</p>	
<p>20</p>	<p>Body features - toe shapes</p>	<p>A good trace fossil will contain lots of detail</p>	<p>Q. What features can you see in this footprint?</p>

	Picture of a dinosaur footprint	about the creatures body.	A. Three toes, distinct shape, scaly skin
21	Irish trace fossils - Olivellites	This is a famous Irish trace fossil called Olivellites. It is the burrow of marine animals that lived during the Carboniferous period over 300 million years ago. The prominent curved lines are feeding trails that could have been made by worms, snails or crustaceans.	Q. What kind of trace fossil is it? A. A trail – a long continuous line
22	Irish trace fossils - Valentia Trackway	The Valentia Tetrapod Trackway is most famous because it is one of only three trackways in the world made by early land animals during the Devonian (ca. 400 million years) Period. On Valentia Island there are in fact almost 20 trackways preserved in different rock layers laid down in a swampy area beside a river channel. The longest trackway has more than 145 imprints of the feet of an early amphibian, and the smaller forelimb prints can be distinguished from the larger hindlimb prints. Some of the shorter trackways show traces of a tail being dragged along the silty mud.	
23	Ireland's Fossil Heritage website	To find out more about Irish fossils you can check out our website, we have information on fossils, a fossil map and even a fossil video game!	

