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|  | **HOW DO FOSSILS FORM?** | | |
| This section focuses on some of the KS2 science content taught through the context of the Jurassic Coast. It links with the history work about Mary Anning and the work in Fossil Detectives. | | | |
| **Key Stage 2** | **Timing: 2 Lessons** | **Science, Geography, English** | |
| **ACTIVITY** | | **LEARNING OUTCOMES** | **RESOURCES** |
| **Fossils of the future**  Using the picture cards, ask the children to sort the pictures into categories of “will become fossils” and those that will not. Can they guess correctly which ones will fossilise? Distribute the answers, how many did they guess correctly?  In most cases, fossils are formed form the hard body parts (teeth, bones, shells) of animals. One exception to this rule are trace fossils. These fossils tell us about how these animals used to live, how they moved or what their environment used to be like. As soon as the mark or burrow has been formed, the feature must be buried immediately in order to preserve its structure.  **Ichthyosaur fossilisation cartoon**  Distribute the set of 7 cards (with empty speech bubbles) to the children in small groups showing the life story of an Ichthyosaur. Can they put the cards in order of what they think is happening? What do they think the speech bubbles might be saying?  Distribute the 7 transparent cards with the speech bubbles. Can the children match what the Ichthyosaur is saying to what is happening in the pictures? Once all the cards are in correct order, read through the story with the children. How much time do they think passes between when the Ichthyosaur dies and when it appears on the beach? (about 180 million years!)  An extension to this activity could be a creative story writing exercise or a short play using the cartoons as a storyboard. | | * Express simple views and opinions * Respond to simple questions * Make simple observations * Select basic but appropriate information * Use simple scientific vocabulary * Describe observations * Compare and contrast * Reason * Communicate views and opinions appropriately * Make simple explanations for observations * Demonstrate understanding through explanation * Make links and identify relationships between observations and outcomes * Use appropriate scientific language | Worksheet 1: Fossils of the future game  Worksheet 2: Story of an Ichthyosaur  Worksheet 3: Captions for story of an Ichthyosaur (copied onto transparencies) |

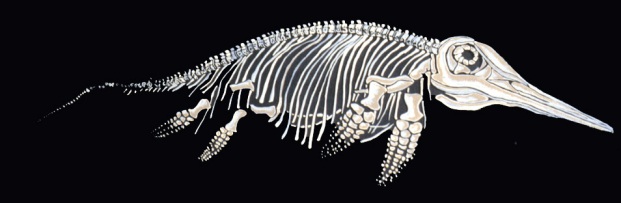
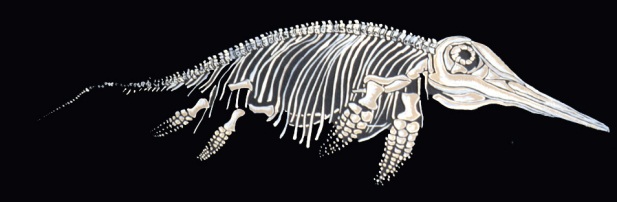
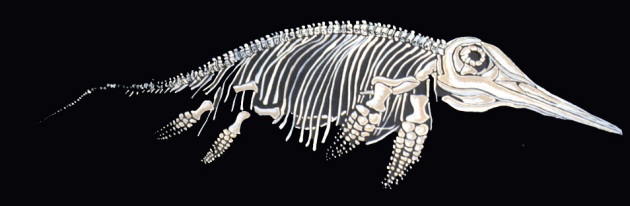
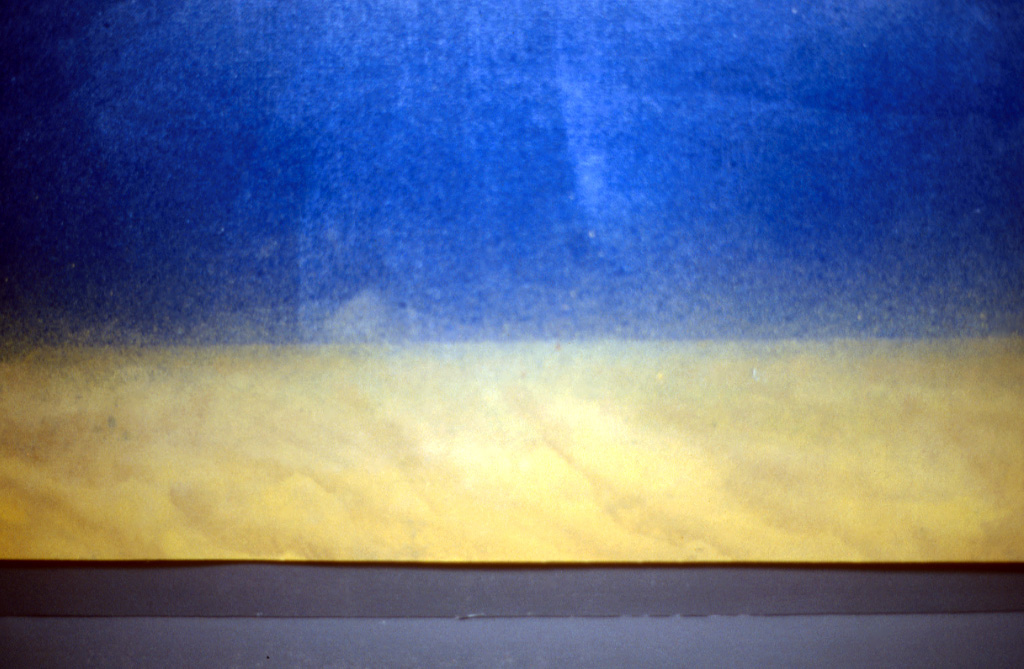
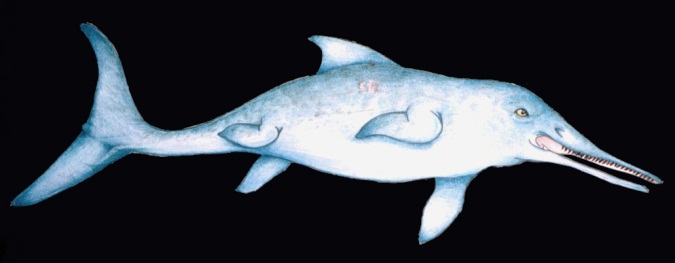
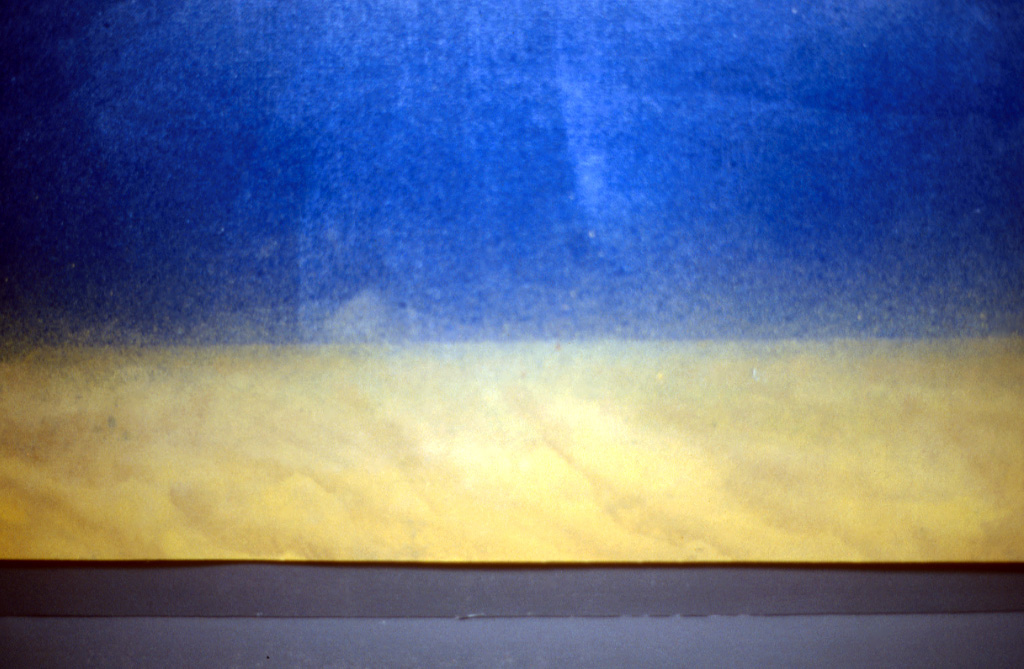
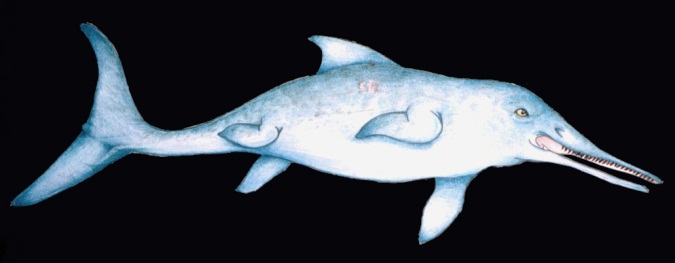
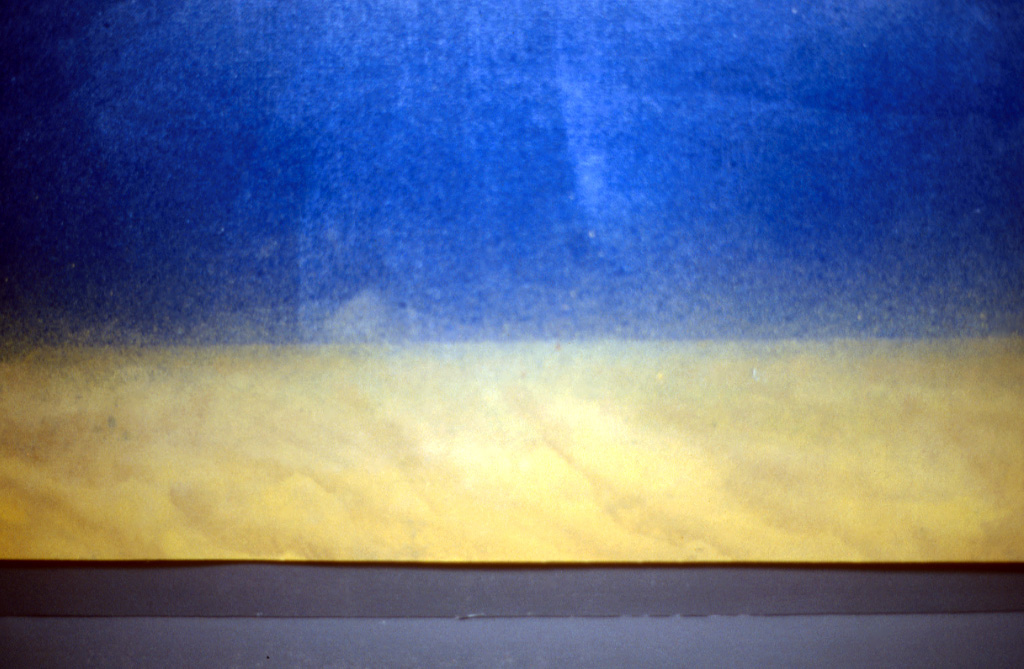
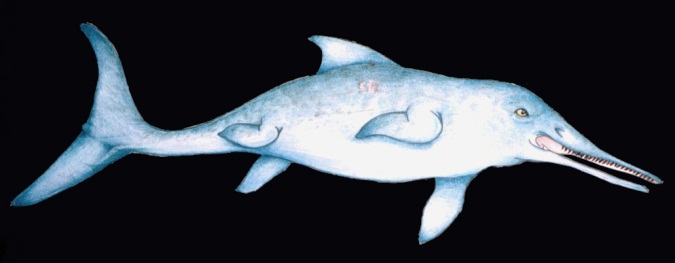
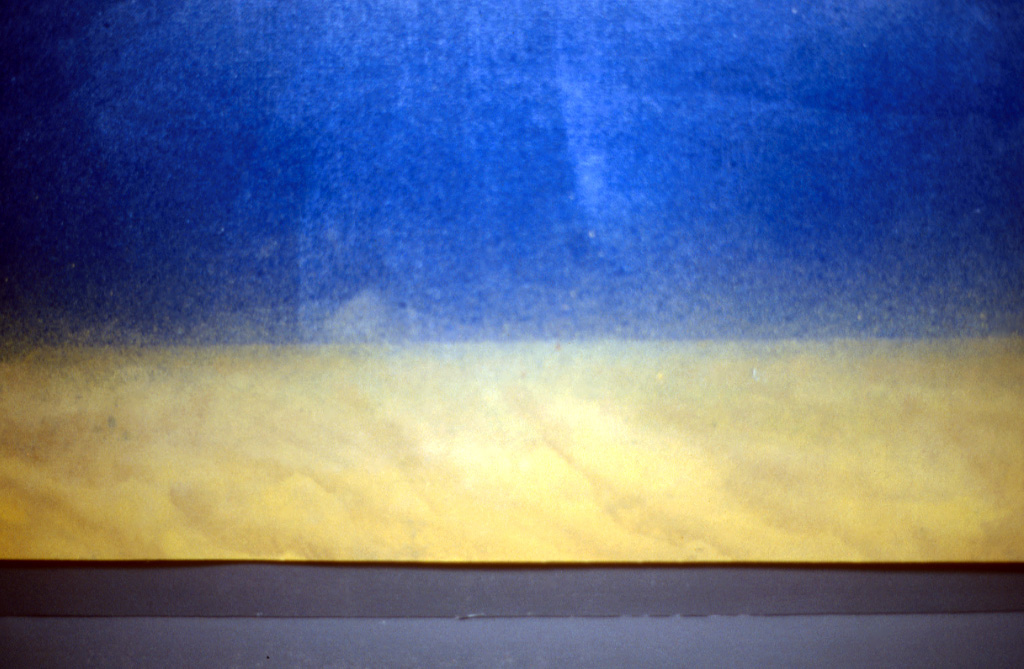
**Worksheet 1: Fossils of the Future**

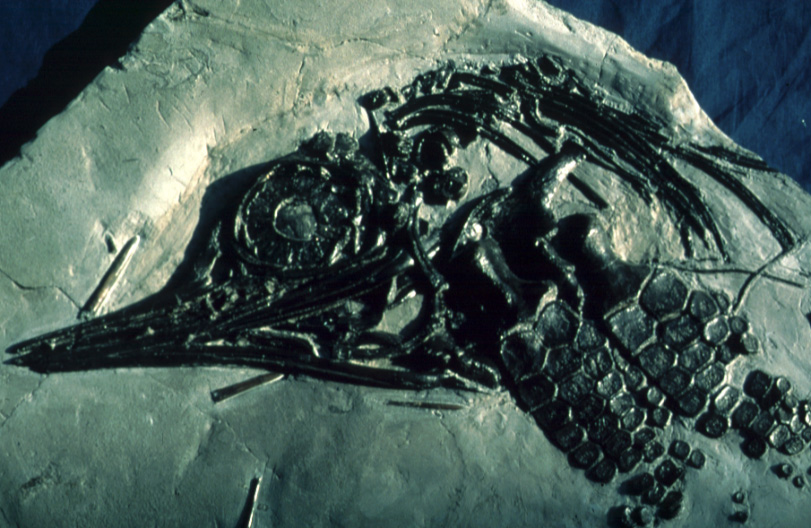
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| Hamburger_sandwich  **BURGER** | Deviated_midline_2  **TEETH** |
| weston-modern-ripples  **RIPPLES** | dog-poo  **POO** |
| http://www.tighbrachen.co.uk/images/Wildlife%20images/ringed%20plover1.jpg  **BIRD** |
| Groene_kikker_op_bankirai  **FROG** | GemeineFichte  **TREE** |
| Earthworm_1 © Ines Zgnoc (GDFL)  **WORM** | Maldives_00147  © Nevit Dilmen (GDFL)  **FOOTPRINT** |

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| **©** [Guttorm Flatabø](http://commons.wikimedia.org/wiki/User:Dittaeva) **(GDFL)**Brown_snail  **SLUG** | © Wikimedia Commons (GDFL)  Sympetrum_sanguineum_female_(d1)_1**DRAGONFLY** | |
| Fossilised_frog© Kevin Walsh (CC-BY-2.0)  **FOSSILISED FROG** | | 307016400_b8186a7941  **FOSSILISED BIRD** |

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| **Iguanadon footprint crop**  **FOSSILISED IGUANODON FOOTPRINT** | portland ripple_crop  **FOSSILISED RIPPLES** | |
| **kim-sharks-teeth**  **FOSSILISED SHARKS TEETH** | Dragonfly  **FOSSILISED DRAGONFLY** | |
| coprolite_cropped  **FOSSILISED POO** | | 4299802tree  **FOSSILISED TREES** |

**Worksheet 2: Story of an Ichthyosaur**





**Worksheet 3: Captions for Story of an Ichthyosaur**

**I am an ICHTHYOSAUR. I like swimming in the sea and eating other animals!**

**I don’t feel very well. Must be something I ate.**

**Oh, dear. I think I just died! My body just fell to the bottom of the sea bed**

**My body has rotted away – the soft bits have all been eaten. Only my bones are left behind.**

**I am getting buried under lots of other rock layers. I feel like I have been lying here for a long time!**

**I can see daylight for the first time in millions of years! The sea is eroding the cliffs on the Jurassic Coast where I will fall onto the beach!**

**I am a FOSSIL. My skeleton was found by a fossil hunter on the beach. He cleaned me and put me in a museum.**