

COELACANTH

SESSION PACK

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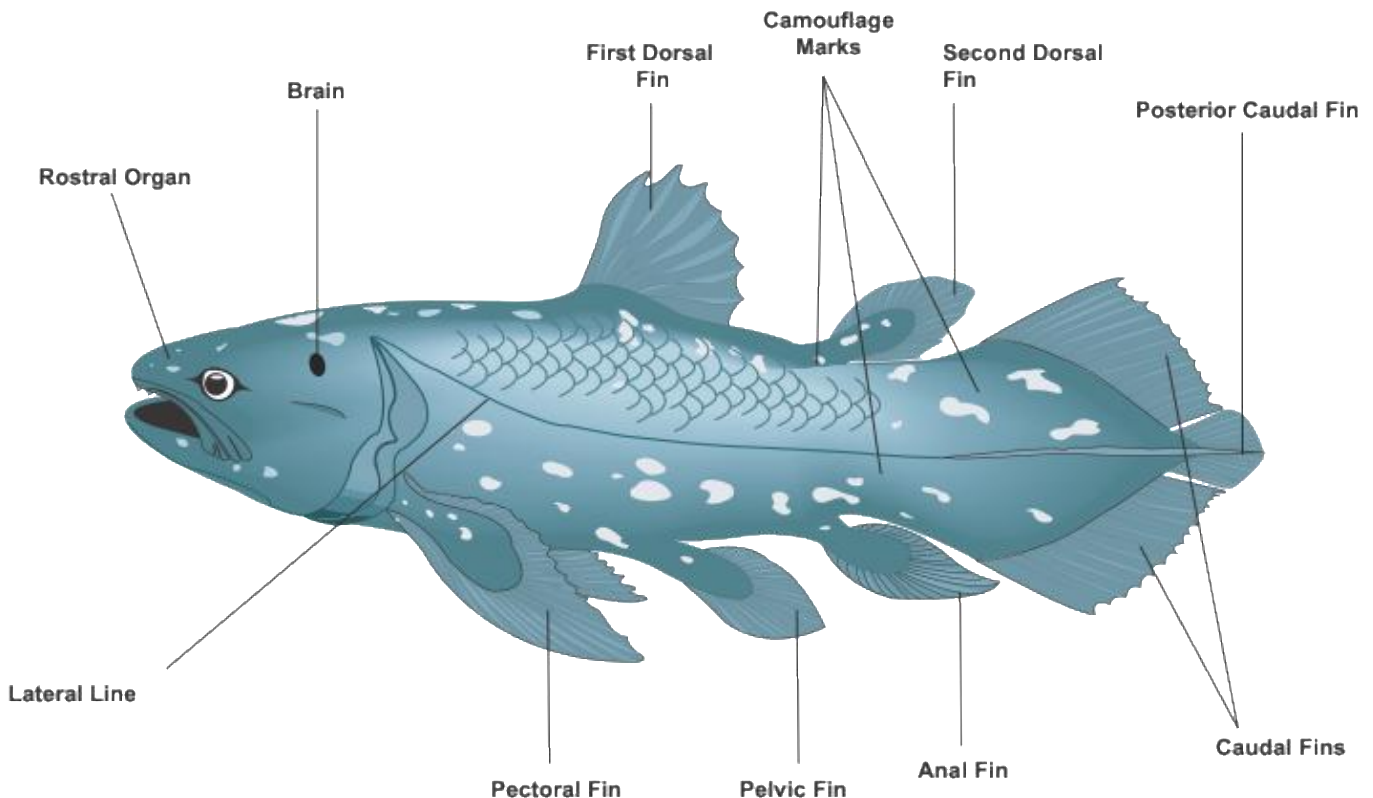
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MATERIALS REQUIRED FOR SESSION

- Plain paper
- Colouring in pens/pencils/crayons
- Copies of coelacanth finger print sheet - 1 per 17 people
- Set of water paints
- Screening device

INFORMATION PAGES: CEOLACANTH

DESCRIPTION:



DIET:

The coelacanth is a "passive drift feeder," moving slowly and passively near the substrate where it feeds primarily on cephalopods (cuttlefish, squid, and octopus) and fishes.

FACTS:

The coelacanth is a "living fossil" and has been around for 360 million years. They ruled many ecosystems with many types of coelacanths about 240 million years ago. Before this, many well-known dinosaurs walked the earth. All these lobes-finned fish were thought to have gone extinct 66 million years ago.

A surprise awaited the scientists when one was discovered by Miss Marjorie Courtenay-Latimera a few days before Christmas on the east coast of South Africa in 1938. This weird-looking fish was caught by a local fishing vessel with no idea just how important that fish was. Luckily, Marjorie had a suspicion and moved heaven on earth to get the (dead) fish described for this vital contribution, the coelacanth was named after her. Divers from Sodwana in Jesser and Wright Canyons just off Sodwana Bay in iSimangaliso Wetland Park found the first living

coelacanths. These discoveries show us that anyone can discover new species and why protecting our ocean and land is important.

Coelacanths are weird-looking, with little limbs and scaly armor, so they are called lobe-finned fish. They swim differently from other fish – they seem to hover in the midwater and may even do handstands. They come out at night to feed, and because of the type of scales on them, they have this blue appearance. They can get quite big, up to 2 meters long, and heavy, around 90kg, and scientists think they can live as long as 100 years.

Like some sharks, coelacanths give birth to live young. Most fish lay eggs, so live birth is very rare. These fish take a long time to grow; it takes about three years for the babies to develop inside their mother before birth. Their average litter size is between 5 – 26 babies.

They mostly like to live in deep water from 150m to as deep as 700m; however, in South Africa/iSimangaliso, we have the shallowest living population known in the world who have been seen as shallow as 50m, but mostly at 100-150m. They are often found in caves amongst the underwater sea mountains/canyons, and they sometimes have a friend with them – the pineapple fish.

Just like humans have unique fingerprints, each coelacanth has its spot pattern, and we can tell them apart by looking at their spots. In South Africa, we have found and named 30+ individuals, most of whom are found in iSimangaliso Marine Protected Area (MPA). The biggest known population of Coelacanth is in Comoros.

SESSION PLAN: COELACANTH

SESSION OBJECTIVES:

- Learners recognise that all coelacanths have unique spot patterns, which is how we can identify them.
- Comprehend that coelacanth were once considered extinct and appreciate the discovery of live coelacanth in both the Comoros and iSimangaliso Wetland Park (South Africa), where they have been observed.

INTRODUCTION ACTIVITY:

- Ask the learners, “*Who has seen or heard of a Coelacanth before?*”, Show them the Coelacanth video, which describes what a Coelacanth is and how they each have a unique pattern.
Coelacanth Educational Video English: <https://tinyurl.com/munsnrdr>
Coelacanth Educational Video isiZulu - <https://tinyurl.com/2s2bccjv>
- Do the *Fingerprint activity* (see *ACTIVITY provided below*) – blank page with coelacanth outline for learners to each add their thumb print to illustrate how fingerprints are unique – just like the coelacanth spot pattern.

MAIN ACTIVITY: DESIGN YOUR OWN COELACANTH

Give each learner a blank piece of paper and crayons – ask them to now draw their own coelacanth with its very own spot pattern and to give it a name. Please encourage the learners to draw their home (habitat) as well. Allow time for the learners to share what they have drawn.

FYI: Sodwana’s coelacanths have names such as Jessie, known from Jesser Canyon, Sidney, Twilight from Wright Canyon, and Shaka and Nandi from Chaka Canyon. In 2014, scuba divers found the shallowest record of a coelacanth at 54m in a cave at the head of Diepgat Canyon, known as “the box.” This large coelacanth is called Pandora.

CLOSING ACTIVITY:

- Sing the Coelacanth song: Ask the learners to help finish the song by crafting another verse.
The song goes to the tune of ‘Down in the Jungle’ which is a nursery rhyme.
<https://tinyurl.com/438j4uu6>

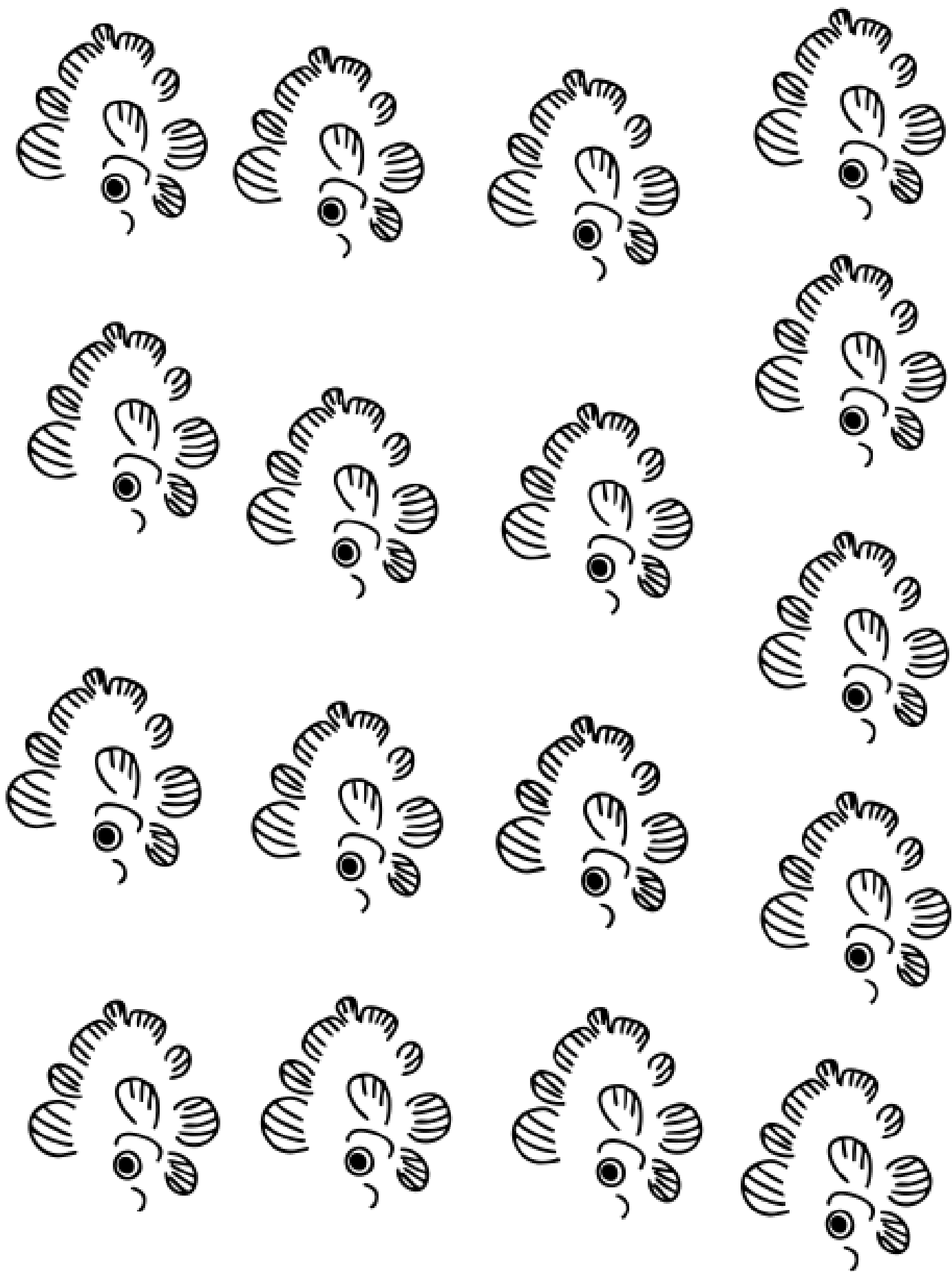
Verse 1: Down in the canyon where nobody goes, a big fat coelacanth has a dose a spot over here and spot over there (not a place over there) that’s the way we know who’s who.

FOLLOW UP SUGGESTIONS:

- Allow the learners to research coelacanth found in their area; how many are there? Do they have names, etc? Where do they live? Help the learners appreciate this wonderful discovery on their very own doorstep and the fact that we have a second chance regarding the conservation of this species as they are not extinct. Encourage learners that we need to ensure to protect their habitat – ask the learners to think about how they could do this.
- Show the learners OUR *OCEANS* – Dinosaurs in the Deep documentary:

<https://tinyurl.com/2t29s56m>

ACTIVITY SHEET: COELACANTH FINGERPRINT



ANNEXURE 1

Associated session plan breakdown for relevant reading and colouring in pages for “Harry the hammerhead” volume one – iSimangaliso community

Session Title	Harry the Hammerhead Shark Spreads the good news (volume 1) reading page numbers	Colouring in page numbers
Intro to oceans session (pre survey)		None
Harry the Hammerhead session	Read pages 1-32	None
What makes iSimangaliso special session	Read pages 1-5	1, 2 & 3
Coelacanth session	Read pages 6-7	4
Turtle hatchling session	Read pages 8-11	5 & 6
Coral Reefs session	Read pages 12-15	7 & 8
Marine food webs session	Read pages 16-23	9, 10, 1 & 12
Shark session	Read pages 24-27	13 & 14
Whale session	Read pages 28-29	15
Benefits of MPA's session (post survey)	Read pages 30-32	16

Associated session plan breakdown for relevant reading and colouring in pages for “Harry the hammerhead” volume one –uThukela community

Session Title	Harry the Hammerhead Shark Spreads the good news (volume 1) reading page numbers	Colouring in page numbers
Intro to oceans session (pre survey)		None
Harry the Hammerhead session	Read pages 1-32	1, 2 & 3
Coelacanth session	Read pages 1-7	4 & 5
Sea Turtle session	Read pages 8-11	6
Coral Reefs session	Read pages 12-15	7
What makes uThukela special session	Read pages 16-19	8 & 9
Marine food webs session	Read pages 20-23	10, 11 & 12
Shark session	Read pages 24-27	13 & 14
Whale session	Read pages 28-29	15
Benefits of MPA's session (post survey)	Read pages 30-32	16

ANNEXURE 2

Session plan - Curriculum and Assessment Policy Statement alignment

WILDTRUST Session plan	Section	Grade	Subject	Strand	Topic	Content & Concepts
Coelacanth session	Intermediate phase	Grade 5	Natural Science & Technology	Live & Living	Africa	Importance of SA fossils