



science
& technology

Department:
Science and Technology
REPUBLIC OF SOUTH AFRICA



Knowledge is NCAH!

Marine Biosciences

DID YOU KNOW:

- THAT WE ALL BENEFIT FROM OUR OCEANS?
- THAT SICK RIVERS LEAD TO SICK OCEANS?



DEMONSTRATION:

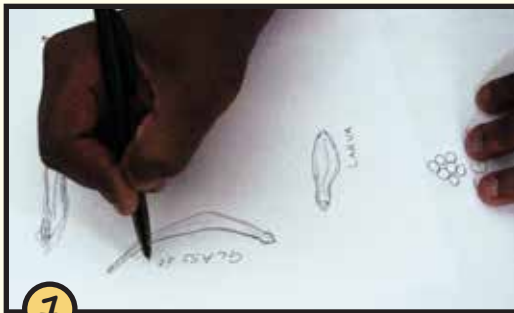
MAKE A MOBILE OF THE LIFE CYCLE OF A FRESHWATER EEL!

WHAT YOU WILL NEED:

Cardboard, tracing paper (optional), scissors, pen, pencil, old wire coat hanger, string or wool, punch

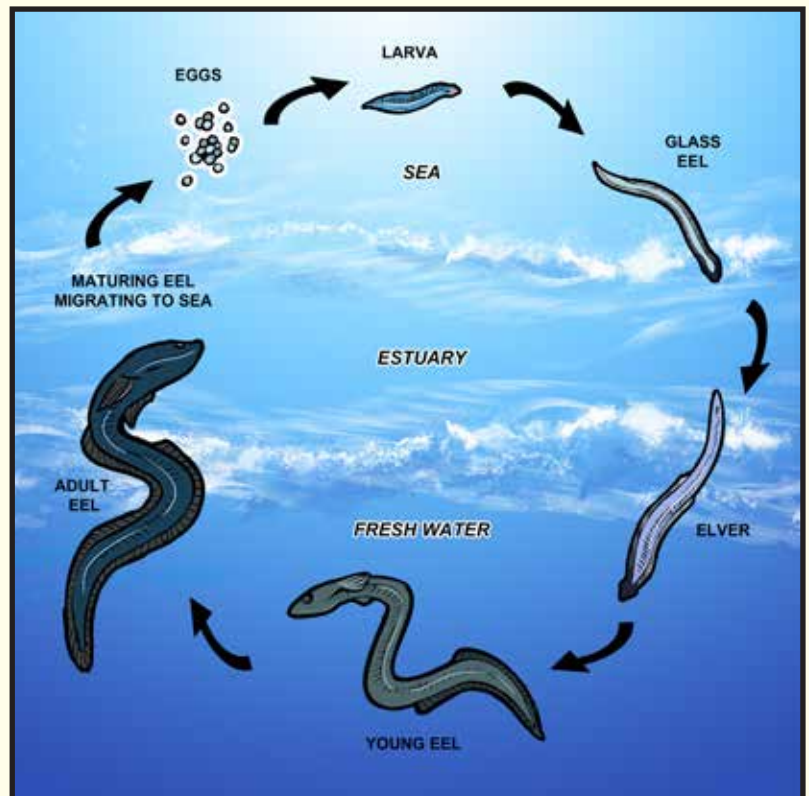
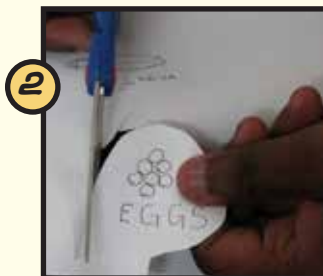


What to do:



Using the picture provided, draw (or trace) the different stages of the eel's life onto your cardboard. Label each picture: eggs, larva, glass eel, elver, young eel, adult eel.

Cut out each picture in an oval or circle shape.





3 Punch a hole in the top of each oval/ circle and tie the end of a piece of string (about 40 cm) through each hole.



4 Bend your coat hanger into a circle and tie the other end of each piece of string to the wire – in the correct order!

Adventurous eels

African freshwater eels are adventurers with a fascinating life! Adult eels lay their eggs in the ocean near Madagascar. The eggs grow into leaf-shaped larvae that are carried down Africa's coast by ocean currents. On this journey they grow into transparent (see-through) "glass" eels.

Through their sense of smell, they sense fresh water from our rivers. By now they have grown into brownish-grey "elvers". They enter the less salty water of estuaries and swim far upstream. They can live here for up to 20 years until one day they know it's time to return to the ocean to breed, and they start the long journey back! Ncah!

CAREERS

IF OCEAN LIFE "FLOATS YOUR BOAT", MAYBE ONE OF THESE CAREERS IS FOR YOU: MARINE BIOLOGIST, OCEANOGRAPHER, ICHTHYOLOGIST (PERSON WHO STUDIES FISH), OR MARINE GEOLOGIST.



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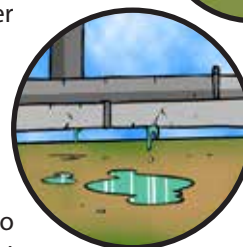
NRF
National Research
Foundation

SAASTA
South African Agency for Science
and Technology Advancement

SICK RIVERS LEAD TO SICK OCEANS

Eels depend on different habitats (the ocean, estuaries and rivers). When ANY of these are polluted or destroyed, the eels suffer. It's not only the eels that suffer. Polluted water from rivers flows into the sea, and is a threat to all ocean species!

It's like this: somewhere inland a farmer uses poisonous pesticides to kill bugs that are eating his plants. Elsewhere sewage leaks from a rusty pipe. The poison and sewage seep into rivers and flow downstream where they pollute estuaries and the sea – home to an estimated 1 million species! Make a list of what we can do to keep our water supplies safe and clean.



CURRICULUM LINKS:

- **Knowledge areas:** Life processes in plants and animals, Environmental studies, Life and Living
- **Themes:** Human impact on environment: current crises; Interactions and interdependence within the environment



Science Spaza is grateful to the South African Institute for Aquatic Biodiversity for assistance in the development of this resource. Information and illustrations on eels courtesy Albany Museum, Grahamstown. Science Spaza provides **free** curriculum-linked resources for science clubs. Register your science club online: www.sciencespaza.org, email: info@sciencespaza.org or SMS "Science Spaza" to: 0761737130. Science Spaza is an initiative of Jive Media Africa www.jivemedia.co.za. All rights reserved.