



WEEK 11: REPRODUCTION



Science in the News



These are mudskippers, the only fish that mate out of the water, in mud burrows, where they adjust water levels to help their eggs hatch.

Photo credit: National Geographic - Thomas P. Peschak



Try it at home - Onion reproduction!

What do you need?

- A small pot or jar
- An onion, spring onion or leek
- Compost or soil

Why does this work?

It is possible for some plants to reproduce asexually (without fertilisation in flowers). Onions have underground food storage organs with fleshy leaves that store food and can grow and develop into new plants.

If you want to learn more about the science behind this, check out our lesson on our website - [Science Creates Outreach](#)



Parents:

For primary learners, work through our full 'reproduction' lesson plan with your child. It is based around the national curriculum learning objectives found in the year 5 'Living things and their habitats' topic. Download here - [Science Creates Outreach](#)

For secondary learners, the contents can be discussed in more depth using the [original online article](#).

FISH THAT MATE OUT OF THE WATER!

Mudskippers are a type of fish that live on the mudflats of Kuwait. When it's time for them to breed they do so in a burrow. The burrow they build is half filled with water, half with air and the female lays her eggs out of the water, on the ceiling. The male then fertilizes them and looks after the eggs for the next few days. To maintain the oxygen the eggs need, the male constantly swims out, gulps air, brings it back, and breathes out, over and over again. In fact, a male might take 100 mouthfuls to create the air bubble! At exactly the right moment, the tide comes in, water pours in, and this triggers the larvae to hatch. They swim up from the burrow and away.

How do we know all this? Well, it is all thanks to an endoscope (a tube only a few millimeters thick which lights up and has a camera on it) and a team at Japan's Nagasaki University, who have pieced together a vision of how mudskippers reproduce.

Instructions:

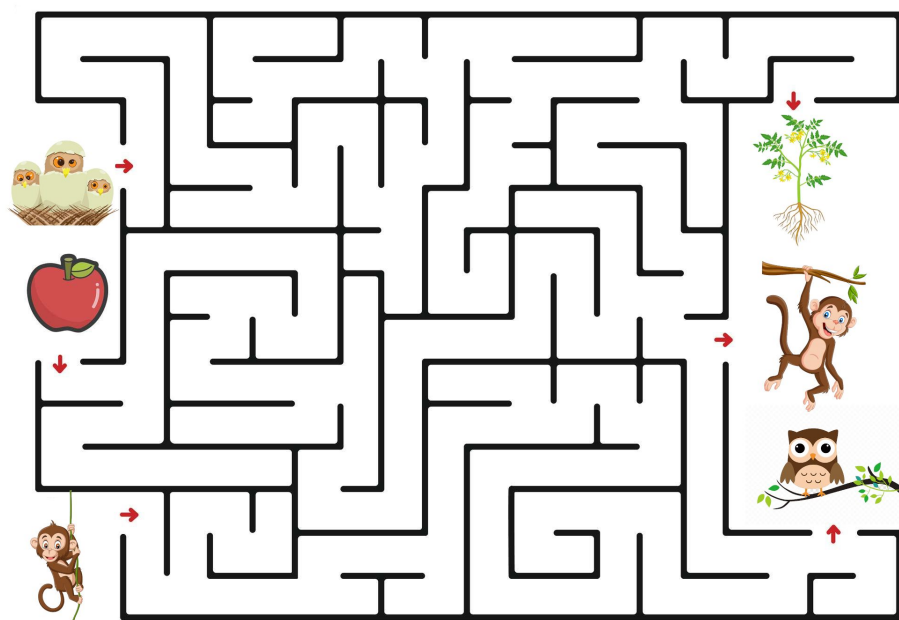
1. First, fill a small pot with compost
2. Next, ask an adult to cut the roots off an onion, spring onion or leek (see photo below, left).
3. After that, gently place your onion roots, with the roots facing down, into your pot of moist soil (see photo, right).
4. Then, place your pot on a windowsill that gets some sun.
5. Finally, keep an eye on your onion. It should start sprouting in the first couple of days!



Top tip - don't buy spring onions from the supermarket again! Simply use the green part, keep the roots and keep regrowing - for free!

outreach WEEK 11: REPRODUCTION

Help the offspring find their parents!



Read, Watch, Ask



Have a read of our [lesson](#) to learn more about reproduction.



How do animals reproduce? Watch [here](#) to find out.



Got any questions about today's topic? Email us at info@sciencecreates-outreach.co.uk and we'll answer them!



Did you know?

Gestation is the word used to explain the time a female is pregnant. The mammal with the shortest gestation time is the Virginian opossum - the females are pregnant for only 12-13 days. The mammal with the longest gestation time is an Indian elephant with 22 months (almost 2 years)!

Be Inspired...

We have added a new section to the newsletter this week. In this section we will be interviewing some inspirational members of the Science Creates science community so that you can learn more about different jobs, what they involve and how you can do the same! This week we interviewed Stacy from a company called Carbometrics.

What does your company, Carbometrics, do?

Carbometrics is working to help people with diabetes live longer lives. We are working to create better treatments for people with diabetes.

What is your job title and what do you do?

My job title is Scientist. I work in a laboratory, where I make different chemicals and conduct experiments to test which ones work best. I work with a lot of complicated equipment to do this. I also keep detailed writings of what I do in the lab.

Do you like your job? Why?

I love my job! The best part is knowing that it will benefit other people. I also enjoy problem solving, and I love working on this newsletter too.

Have you always wanted to be a scientist?

I didn't know what I wanted to do for a long time when I was at school. Then, when I started my GCSE's, I realised science – specifically chemistry - was something I really enjoyed, so I went for that!

