



Biology



Practical work to support the
Science benchmarks



Experiences & Outcomes	SSERC Resources
SCN 3-01a / 4-01a	<ul style="list-style-type: none"> • Explore Our World - Challenge <u>ONE</u>, <u>TWO</u> or <u>THREE</u> • <u>How to Sample</u> • <u>Biology on your doorstep</u> (PPT) and <u>worksheet</u> • <u>Producing a key</u> • <u>Hard-wired brains</u>: effect of light on maggot behaviour
SCN 3-02a	<ul style="list-style-type: none"> • <u>Investigating Photosynthesis using Spinach Discs</u> • <u>Photosynthesis using immobilised algae</u> • Photosynthesis using <u>Cabomba</u> or <u>Egeria</u> • <u>Using seaweed to measure photosynthesis</u>
SCN 4-02b	<ul style="list-style-type: none"> • <u>Our Growing Brain: exercise and the brain</u> • <u>Immobilised algae and respiration</u> • <u>Dehydrogenase activity in yeast (colour-reaction)</u>

**Experiences &
Outcomes**

SCN 3-03a /
4-03a

SSERC Resources

- Effect of fertilisers on algae growth: [Method](#) and [Results file](#)
- [Compost Capers](#)
- Exploring Fertilisers - mung bean nutrient deficiency: [Investigation guide](#), [Teacher and Tech guide](#)
- Discussion activity: [Food security](#), [Moredun Info](#)

Experiences & Outcomes

SSERC Resources

SCN 3-12a /
4-12a

- [A Focus on Eyes](#)
- [One Vision - using smartphones to explore colour vision](#)
- [Our Growing Brain: Merge Cube](#)
- Breakdown of starch by diastase: [Teacher guide](#), [Technician guide](#), [Pupil materials](#)
- [Microscale Biology - Titration](#)

SCN 3-12b /
4-12b

- [In the Zone resource pack](#)
- [Our Growing Brain: effect of light on maggot behaviour](#)
- [Turn alternation in woodlice](#)

SCN 3-13a /
4-13a

- [Our World Through a Lens](#)
- [Plasmolysis using digital microscopy and film](#)
- [Investigating Microorganisms \(protocol 3\)](#)

SCN 3-13b /
4-13b

- [Investigating Microorganisms](#)
- [Microscale Biology](#) - enzyme studies

Experiences & Outcomes	SSERC Resources
SCN 3-14a / 4-14a	<ul style="list-style-type: none">• Making Reebops: PPT, protocol
SCN 3-14b / 4-14b	<ul style="list-style-type: none">• DNA Extraction: protocol• Wizard Genes: PPT, protocol, Tech guide, battery-free• Genetic dilemmas: Pupil cards, Teacher guide, Pupil info• Let's Talk Biobanking: Help cards, Info cards, Worksheet• 2023 Update to the Wizard Genes practical using alternative food dyes - Whodunnit?

**Experiences &
Outcomes****SSERC Resources**SCN 3-20a /
4-20a

- [Our World Through a Lens: page 5](#)
- [STEM Ambassadors in Scotland: Spotlights](#)
- [Taking Biology Further](#)
- [Our Growing Brain: Development of MRI \(new\)](#)

SCN 3-20b /
4-20b

- [Our Growing Brain: Debate](#)
- [Let's Talk: Vaccines](#)