

Seaweed, and 2015 International Year of Light

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Kia ora and welcome to the first Assessment Resource Banks newsletter from our new website at <https://arbs.nzcer.org.nz>.

Coming up ...

We now have over 2250 resources published on the new site. Of these about 250 can be completed online as well as by pencil and paper. Our plan is to bring across all the existing ARBs to the new site, and re-develop some resources so they can also be completed online.

Please note: Registration for the old arb website will close at the end of this year as we migrate to the new site.

The old site will be archived by June 2015, so make sure you register to set up your individual teacher account here: <https://arbs.nzcer.org.nz/register>.

Many of you will be thinking about planning your science for 2015.

Two events you may want to link with are **Seaweed**, and **2015 International Year of Light**.

Seaweed

Seaweed 2015 will take place from Saturday 28 February to Sunday 8 March 2015. The theme is "*Look beneath the surface – Papatai ō roto – Papatai ō raro*" For more information go to seaweed.org.nz

This selection of ARB resources may be useful for incorporating some science into your Seaweed activities. The tasks can be completed either individually or in groups, and make good starting points for discussions about what makes a healthy ocean and how we can manage that.

1. What makes a fish a fish?* (Level 2) is about classification.
2. Living in the sea* (Level 3) is a quick multiple choice task about respiration of marine mammals and fish.
3. Cleaning up the beach* is a Level 3 matching activity that explores the impact of various sorts of rubbish on the plants and animals that live on a beach. It then asks students to prioritise which rubbish to take away first, justifying their decisions.
4. Sea mammals and fish is a Level 3 classification task.
5. Shark's fins is a Level 3 task about how sharks use their fins to move in the water (the focus is on adaptations).
6. Fish camouflage is a Level 3 task with a focus on colouration.
7. Features of a sea lion* (Level 3) is about adaptations. Students are asked to identify features of a sea lion that enable it to live in water.
8. Beach clean- up (Levels 3/4) is about rubbish at a beach. *
9. Rocky shore food web and Who eats whom at the rocky shore? are Level 4 resources that explore feeding relationships in a rocky shore ecosystem, as shown in a food web.
10. Living in the ocean is a Level 4 task that asks students to complete a drawing of things

found in or near an ocean, and describe relationships between them. The focus is on interdependence in an ocean environment.

11. Whales and dolphins is a Level 4 classification task.
12. Features of fish (Level 4) is about identifying whether pictures of fish are either bony fish or sharks by interpreting a Venn diagram.
13. Pāua is a Level 4/5 resource that explores laws protecting pāua and the reasons for these laws.
14. Identifying fish and shellfish is a Level 4 classification task using classification keys for freshwater fish and shellfish. You could just use the second part of the resource, or replace the first part with a key and questions for ocean fish.
15. Feeding relationships in the Southern Ocean is a Level 5 resource that explores feeding relationships in the Southern Ocean as shown in a food web.
16. What do you know about the greenhouse effect? (Level 5) is a quick check on students' understanding of the effects of greenhouse gases on climate change, including on oceans.

2015 International Year of Light

In proclaiming an International Year focusing on the topic of light science and its applications, the United Nations has recognized the importance of raising global awareness about how light-based technologies promote sustainable development and provide solutions to global challenges in energy, education, agriculture and health. Light plays a vital role in our daily lives and is an imperative cross-cutting discipline of science in the 21st century. It has revolutionized medicine, opened up international communication via the Internet, and continues to be central to linking cultural, economic and political aspects of the global society [IYL 2015] <http://www.light2015.org/Home/About.html>

New Zealand events can be viewed at <http://www.light2015.org/Home/About/Country/New-Zealand.html>

ARB resources focusing on light are:

1. Lighting (Levels 3/4/5) and Lighting Shane's bedroom (Level 2) are about reading a table comparing the energy usage and lifespan of different sorts of lights, and use this information to complete a second table to describe advantages and disadvantages of each.
2. Finding out about colour is a practical Level 2 investigation about effect of coloured lights on different coloured objects.
3. Which make light? (Level 2) is about identifying sources of light.
4. Light in my eyes (Level 4) is about investigating reflection of light using a torch and mirror.
5. Taxi* (Level 4) asks students to identify the colours on a taxi sitting under a red streetlight.
6. Transparent, translucent or opaque? (Level 4) is about classifying objects as either transparent, translucent, or opaque.
7. How a prism works (Level 5) is about reading and explaining diagrams about how light travels through a prism.
8. Spot the possum* is a quick assessment about what happens to the light from a torch (Level 5).
9. Light and water (Level 5) is a vocabulary check about light travelling through a drop of water.
10. Concave and convex lenses (Level 5) is about investigating the way in which a concave and a convex lens distort the image of a pencil.
11. Periscopes is about how light travels (Level 5).
12. Light and photosynthesis (Level 5) is about light intensity and its effect on the rate of photosynthesis.
13. How safe are your sunglasses? (Level 5) is about how eyes react to light, and technology of

sunglasses.

Of course we're always happy to get feedback and would love to hear from you about our new site and the potential it offers for formative assessment in the classroom.

Warmest regards
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