United Nations Decade on Biodiversity

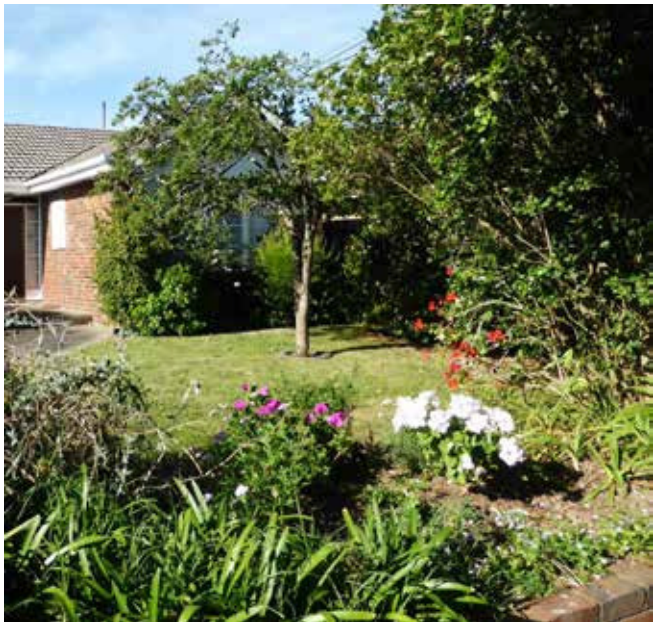
Celebrating Soils

Introducing the 2015 IY Soils to this continuing biodiversity and sustainability series
by Jeanie Clark

2015, a year for Soils! After something as diverse as a year for Family Farming, "*Feeding the world, caring for the Earth*", we come next to 'soils', to 'dirt'? What can be celebrated about this?

Part 1 Recognising the roles of soil in your life

Well let's see by getting to know our soil/dirt a bit first! Let's go outside to explore your soil.



Is your soil visible? Do you have to remove things to get to the soil, e.g. like in the place in the photo above? What does soil do under things? Can you tell what your soil is like without removing them?

Basic Soil Science with our Senses

Use senses to describe your soil! Basic science uses the senses as tools. Which will you use? How will you describe what you observe? Colour, shape, hardness? Moisture, heat, texture? Odours? That uses sight, touch and smell. Can you hear or taste soil? No! Do NOT try taste! Choose appropriate tools and categories to observe and record your soil.

Do you choose to observe soil in isolation or as part of its surroundings? Of what is it a part? What do you look for in/above/under soil; nature's biodiversity; farmed/ gardened living things; structures supporting soil and vice versa?

Should you go further and look for evidence of this soil interacting with other parts of its environment - seen and unseen? Are there rocks way below that it is derived from or has it been brought here by deposition or by man? Is it in danger of being blown or washed away? Is it receiving and giving moisture to the air, plants, deeper underground? What about carbon? Other nutrients? What about as homes for insects, worms, and bigger creatures?

What personal learning might develop doing this? Has the surface of soil knowledge been scratched? Have learning possibilities been noticed? Has awareness grown in the learners of how much they depend on soil where they live?

Celebrate what soils contribute to your life now, whether often thought about, or cared for, or not! And plan to grow your learners' knowledge through this year for Soils.

Soils Year Aims

So from the 2014 International Years (IYs) of Family Farming and of Small Island Developing States, let's welcome the ground underpinning them - Soils in 2015 (IYS15). Let's involve our learners in soils, as part of a global effort *"to increase awareness and understanding of the importance of soil for food security and essential ecosystem functions*," [FAO 2015]

The FAO's first specific objective is to raise "*full awareness [of] ...the profound importance of soil for human life"* [FAO 2015]. Let's begin with the importance of soil in your learners' lives, and use the investigation above to represent this in a logo.

Part 2 Communicating the values of soils

Design and create a personal soil logo/slogan

Reflect on personal soil observations to identify:

- the key feature of your soil
- the key value for your soil in your life
- key uses you have of your soil.
- a medium to communicate this

Create a logo and/or slogan to depict this as your IYS logo. You may like to share this with others, or send it to share in *Otherways*.

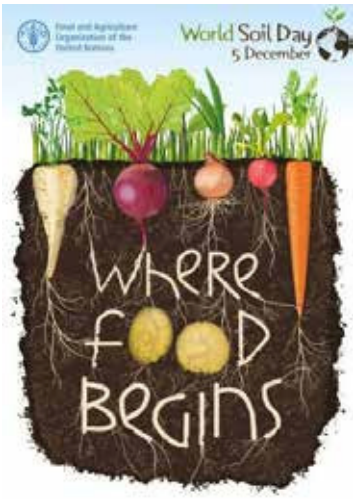
Interpreting other soil visual communications

Source: http://www.fao.org/soils-2015/en/

Logos have meanings. Use your logo-making experience to help you understand other visual communications. The official IYS15 logo is below:

Use these questions to aid your understanding:

1 What symbols do you see within it?
2 What do you think the colours stand for? (If this page is not in colour, see it on the web)
3 What do you think the arrangement of these colours and symbols is meant to mean?
4 How well does it show its IYS15 slogan - ***Healthy Soils for a Healthy Life*** ?
5 Does it also show 'family farming'? (How?)
6 Does it show 'living in harmony with Nature'?



Source: http://www.fao.org/globalsoilpartnership/iys-2015/en/

The IYS15 was launched on World Soils Day (WSD) December 5 2014. There were several visuals produced for it, e.g. "Where food begins".

Consider the six earlier questions again for this poster. (Could you draw one like it for your place?) More ideas on using this diagram as a base for English literacy, surveying in Science/Mathematics, and sustainability – farming systems, are in a "Where Food begins" pdf at http://familyfarms.enviroed4all.com.au/4-teachers/

Some other IYS15 visual communications, that can be explored through these questions, are:

1 The meaning of my logo (in title of article)

2 The US Department of Agriculture of the Natural Resources Conservation Service has a stunning poster worth seeing and considering at http://www.nrcs.usda.gov/Internet/FSE_MEDIA/stelprdb1240075.jpg (3.4 MB)

3 FAO stimulates discussion with its soil statements and photos (of food production) (FAO 2015). Older learners could further evaluate these for their relevance where they live.

4 The WSD diagram starts a big infographic at http://www.fao.org/fileadmin/user_upload/GSP/imgs/WSD2014/buttons/infographics/infographics_en.jpg This is a group of diagrams and texts that are worth enlarging and breaking up for reading and re-reading. As their complexity varies, so they vary in the ages they are suited to for their messages. Questions 3 & 4 can be used with each of these diagrams. Some also lend themselves to the other questions.

Taken as a whole, what do these communicate about soils?

The crucial role of soils

FAO's second objective concerns improving knowledge of "*the crucial role soil plays in:*

- *food security*
- *climate change adaptation and mitigation*
- *essential ecosystem services,*
- *poverty alleviation*
- *and sustainable development*" [FAO 2015]

The values of soils stretch much further than might be at first expected! Much of this is suited to older learners, but the ground work in knowing what soil is like and how to care for it, can be done with younger learners. If you learnt in 2014, that family farmers (rural – urban, big – small) grow some food they consume, then the 'crucial role' from soil to food security can be built on this.

After celebrating personal reasons for soil values, what could you do next towards the IYS14 aims stated above? Are there gaps in knowledge? There is plenty on the web about soils, but often at a high level. So I would suggest these to start:

- Soil quizzes reveal gaps. Try:
  - the quiz at "soil net" http://www.soil-net.com/legacy/schools/quiz/soil_quiz.htm
  - the quiz at "Easy science for kids" http://easyscienceforkids.com/soil-quiz-fun-free-online-earth-science-kids-quizzes/
- Downloadable school programs fill gaps. Try:
  - Landlearn's "*Soils ain't dirt*" and
  - UN's YUNGA "*Soils Badge*"

Discover some amazing science and issues as you to dig with your learners into soils this IYS15.

Notes

Meaning of my logo - We, family farmers, depend on our soil for food we (like to) eat e.g. home-made zucchini cakes from our zucchini plants.

Key reference: Food and Agricultural Organisation of the UN, 2015, at http://www.fao.org/soils-2015/en/