Measuring coral health using transect surveys

The **aim** of this activity is to monitor the health of corals using the Coral Health Chart along a transect line as research technique.

ACARA curriculum links
Science understanding (ACSSU116)
Science as human endeavour (ACSHE119, ACSHE223)
Science inquiry skills (ACSIS124, ACSIS125, ACSIS126)

Instructions
- This activity can be conducted snorkelling or reef walking.
- The CoralWatch Virtual Reef Activity is useful preparation for using the Coral Health Chart in the field.
- The CoralWatch data slates contain all required survey details. You can also create your own data slate by transcribing all the information onto a blank waterproof slate. Make sure you don't miss any details!
- The distance along the transect line between measurements can vary depending on coral cover. If there is no coral underneath the assigned reading, students can pick the closest coral colony.
- Ensure students don't damage the coral as they lay out the tape or when taking measurements.
- For future reference, students could mark the start and end of your transect using GPS coordinates.

Steps to take for a transect survey
1. Read the instructions on the back of the Coral Health Chart.
2. Make sure you have all your equipment as listed.
3. Start with recording survey details on your data slate: name, date, time, GPS coordinates (if possible), water temperature, depth, activity and conditions.
4. Lay out a tape measure or string with measurements marked on it. To decide what intervals to use on the transect tape you should consider the coral cover in your area. With high coral density you could collect data every half a meter, meter or with low density it might be best to take 2 meter intervals.
5. Swim or walk along the tape, and record data every 50cm (depending on coral cover). Aim to collect data for 20 different coral colonies.

Equipment
- If snorkelling - mask, snorkel and fins
- If reefwalking - booties, hat and sunscreen
- Coral Health Chart
- Waterproof data slate (see picture) with pencil
- Thermometer
- Viewing tube (if available)
- GPS to record coordinates (if available)