**L3 REVISION – MURIWAI COASTAL ZONE ENVIRONMENT – MEMORY GAME**

* **photocopy sheets onto card and cut up into single cards. Teacher keeps master for ‘correct’ matches**
* **students play in 2’s or 3’s just like the children’s game**
* **place all cards face down on desk. First person takes one card, reads aloud and then chooses a second card and reads it aloud. If no ‘match’ then return both cards to same place.**
* **Next student has a turn. If a match is made, those cards are kept separate as a pair. Student has an extra turn. Game finishes when all cards ‘matched’, winner is student with most pairs.**
* **Shuffle and repeat.**

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| MURIWAI BEACH LOCATION | 30 km (up to 42) NORTHWEST (West) of AUCKLAND |
| MCZ environment EXTENDS | 50 km from MURIWAI to KAIPARA SPIT |
| STUDY AREA | 5 km from MAORI BAY to OKIRITOTO STREAM |
| GENERIC PROCESSES INCLUDE | EROSION, TRANSPORTATION, DEPOSITION |
| FETCH | 2000km over TASMAN SEA |
| BEACH SLOPE | SHALLOW GRADIENT  1-5 degrees |
| DUNE HEIGHT | 4-10 m HIGH |
| HEADLAND | OTAKAMIRO PT |
| STACK FEATURE | MOTUTARA ISLAND |
| TIDAL RANGE | 3 m |
| SEDIMENT ENTRAINMENT | 5 m/sec or 11 knots |
| ONSHORE WINDS  11 knots (5msec-1) | 50% of time |
| PREVAILING WIND DIRECTION | SW |
| AVERAGE WAVE HEIGHT | 1.5 m |
| WAVE SWELLS of at least 3 m | 31% of time |
| LONGSHORE DRIFT | 250,000 cubic metres/yr |
| HIGH ENERGY WAVES | 500,000 J/m-1 |
| BLACK SAND | TITANOMAGNETITE |
| LIGHT GOLDEN SAND | FELDSPAR |
| NATIVE GRASS | PINGAO |
| GRASS WITH ‘RUNNERS’ | SPINIFEX |
| WAVE ACTION EROSION sub-processes include… | CORROSION & ABRASION |
| What type of processes are  WAVE/ WATER PROCESSES | HYDROLOGICAL |
| PILLOW LAVA FORMATIONS | GEOMORPHOLOGICAL  features |
| WIND IS AGENT OF … | AEOLIAN PROCESSES |
| ABNEY LEVEL OR CLINOMETER | MEASURES SLOPE ANGLE |
| WIND MEASURED BY… | ANENOMETER |
| NATURAL PROCESSES ARE.. | A sequence of related actions that maintain or modify the environment |
| LANDFORM FEATURES ARE THE RESULT OF… | INTERACTING NATURAL PROCESSES |
| MURIWAI HAS BEEN IN A MAINLY EROSIVE PHASE FOR… | PAST 2000 YEARS (but especially last 60yrs) |
| HEADLAND HAS MOSTLY BEEN MODIFIED TO ITS CURRENT STRUCTURE IN… | LAST 10,000 YRS |