CAISTER ACADEMY
Creative Education Trust

Science Literacy Policy 2022 – 2023

Intent

Literacy in Science: Caister students should be able to understand, synthesise and fluently communicate Scientific knowledge in lesson frequently.

Our students will be able to select required content from Scientific text, read aloud with confidence and independently access knowledge from home when required via books, knowledge organisers and online resources.

Students will be exposed to tier 2 & 3 vocabulary in each topic and use these words in constructed sentences both verbal and written. Students will be exposed to specialist language every lesson and the teacher will highlight the correct use of the word and give a definition when applicable in the correct contect.

Implementation

Tier 3 key words with definitions will be printed onto topic front sheets for every term. These tier 3 words will be 'RAG' after each topic to by students to measure pupils' confidence and engagement with previous learning. The key words will be used orally by teachers in lesson to encourage and expose students to their correct use in descriptions, explanations, and justifications. Teacher will then model constructed exam answers/ responses in literate sentences and give opportunities for Caister pupils to practice. There will be a specialist language section on a whiteboard in lesson where the words are physically written down by the teacher and referred to in lesson when it is appropriate.

Students will self & peer assess their correct spelling and use of lesson in formative assessments. Words that are misspelt will be corrected in 'assessment recovery' lesson in purple pen and teachers will mark for their correct use in sentences along tier 2 vocabulary. This will be labelled as 'specialist language'.

Common misconceptions with scientific language or incorrect use of spelling will be address via low stakes testing and homework. The regular use of key words will ensure our students 'Talk like a scientist'. The use of homework strategies will work alongside the academy's literacy policy. The Science team will work alongside strategies created by 'National Literacy Trust' to improve implementation.

1. **Extended Practice**
   - To improve fluency and confidence
   - To embed recall and retrieval practice which will support with long-term memory acquisition.
2. **Independent Practice**
   - To allow students to explore a subject at a deeper level
   - Self-directed or creative learning, building students' capacity for independent learning and promoting independent thinkers.

Independent Practice

Learning activities that would not traditionally take place in the classroom or do not need extended teacher-led input. This should be explorative, self-directed and moves into ***hinterland knowledge*.**

- Open-ended projects (KS3 homework)
- Exam questions (AQA)
- Low stake assessment
- Formative assessment
- Creation of questions via flash cards
- Retrieval practice: prior learning applied in new contexts with knowledge organisers
- Students will use a ruler to read from sources both in teacher lessons and cover lessons
- Lessons will regularly offer opportunities for students to engage with comprehensive activities to read charts, graphs in addition with extended text.

Term 1

Year 7 key words:
1) Organism
2) Nutrient
3) Population
4) Fertlisation
5) Elements
6) Compounds
7) Evaporation
8) Gravitational
9) Mass
10) Weight

Year 8 key words:
1) Respiration
2) Alveoli
3) Molecule
4) Ecosystem
5) Atmosphere
6) Photosynthesis
7) Displacement
8) Proportional
9) Pressure
10) Resultant

Year 9 key words:

1. Temperature
2. Thermometer
3. conduction
4. insulation
5. microorganism
6. communicable
7. immunity
8. displacement
9. neutralisation
10. reactant

Year 10 key words:

1. Resolution
2. Magnification
3. Aerobic
4. Anaerobic
5. Covalent
6. Ionic
7. Density
8. Reactivity
9. Scalar
10. Vector

Year 11 key words:

1) Homeostasis
2) Hormone
3) Allele
4) Homozygous
5) Saturated
6) Combustion
7) Incomplete combustion
8) Transverse
9) Dense
10) Refracted