

Dear Parents/ Carers,

Please find below information about what your child is learning this term- we call it a 'Knowledge Organiser' for our new Connected Curriculum. The last section of the Knowledge Organiser offers ideas of how adults can support children at home and gives information about homework.



Please speak to your child's class teacher if you have any questions.

Knowledge Organiser for Y5 Unit 1 – Mysterious Materials – What is it made of?

Baseline assessment and experience of learners (Learner conversation & KWL grid)

Science Quiz

Pre-requisite knowledge:

Compare and group materials together, according to whether they are solids, liquids or gases

Know that all matter is made of particles

Heat produces changes of state for some materials

Magnetic forces

Knowledge to be secured (What do learners need to know and understand?)

- Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution
- Know that some changes are irreversible and result in the formation of new materials
- Know how to plan different scientific enquiries to answer questions, including recognising and controlling variables where necessary
- Know how to take measurements using scientific equipment

Terminology and vocabulary Spelling

dissolve, classify, magnetic, repel, attract, solid, liquid, gas, separate, soluble, solute, solvent, evaporate, temperature, thermometer, reversible, irreversible, insoluble

recycle, conservation, ocean, albatross, environment, government, community, dawn chorus, wretched, coral reef, winched

advice/advise, device/devise, licence/license, practice/practise, prophecy/prophesy, farther/father, guessed/guest, heard/herd, led/lead, morning/mourning, past/passed, precede/proceed, principal/principle, profit/prophet, stationary/stationery, steal/steel, wary/weary, who's/whose

Definition

To dissolve something is to mix it with a liquid so it becomes part of the liquid.

To classify something is to put them into groups.

To repel something is to force it away.

A soluble substance is able to be dissolved.

A solvent is a liquid in which other substances (solutes) can be dissolved.

To evaporate is to change from a liquid into steam or vapour.

	<p>Children will also be revising the Year 3 and 4 common exception words and will be beginning to learn the Year 5 and 6 words. These can be found below.</p>	
<p>Skills to be secured (What do learners need to be able to do?) Know how to...</p> <ul style="list-style-type: none"> - Compare and group together everyday materials on the basis of their properties - Use knowledge of solids, liquids and gases to decide how mixtures can be separated - Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic - Demonstrate that dissolving, mixing and changes of state are reversible changes - Use test results to make predictions 	<p>Possible misconceptions that may arise or things which these learners may find difficult</p> <ul style="list-style-type: none"> - Recognising and using appropriate scientific vocabulary - Articulating their observations and knowledge 	<p>Links to other learning to be made (previous learning in the same subject and cross-curricular / life applications):</p> <ul style="list-style-type: none"> - PSHE/English – recycling, pollution, caring for the environment - ICT – researching endangered animals and their environments - Maths – place value, addition and subtraction, Roman numerals, measures
<p>The journey...</p> <p>For the duration of the Learning Unit the classroom will become a training annexe of the highly reputable 'Materials Academy'. The academy has an excellent reputation for solving problems sent to them and for providing scientific evidence to support their findings. Pupils will be working as trainee 'Materials Scientists' during the Learning Unit. They will learn about materials and use that knowledge, whilst working in teams, to solve problems that have been sent to the academy. They will be demonstrating their ability to learn as part of a group, be a team member, take on team roles and support others in their team. They will receive support to improve their skills and will be assessed on their ability to carry out experiments and investigations.</p>	<p>Planned or possible experiences, investigations or enquiries (link to any entitlement lists drawn up by the school)</p> <ul style="list-style-type: none"> - Waste Education Bus - Visit from a scientist to carry out investigations 	

<p>Probing or comparative questions / challenges</p> <p>Can you tell me what is happening? Why did this happen? What makes this happen?</p> <p>Why do you think...? How do you know...? What would happen if...? Can you explain?</p> <p>Can you see a link/relationship between?</p> <p>What is the scientific name for...?</p> <p>What happens to... when you change...?</p> <p>Using what you have learned, can you tell me/predict/explain...?</p>	<p>Writing opportunities and related skills</p> <ul style="list-style-type: none"> - Talk for Writing narrative unit (This Morning I Met a Whale) - Recording data and results using scientific diagrams and presenting findings including conclusions and explanations
<p>Resource guidance</p> <p>A variety of materials Never heard the word grid A range of scientific measuring equipment A range of solids, liquids and gases that can be dissolved/separated, producing reversible/irreversible changes</p>	<p>Agreed outcomes</p> <ul style="list-style-type: none"> - Pupils are able to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary - Pupils will be able to take measurements, using a range of scientific equipment, with increasing accuracy and precision - Pupils to record data and results using scientific diagrams and labels, tables and graphs - Pupils will be able to report and present findings in oral and written forms, using scientific evidence and vocabulary
<p>Ways parents/ carers can support/ Homework</p> <ul style="list-style-type: none"> - Discuss environmental issues, including recycling and the impact on the planet. - Encourage pupils to learn and define the key vocabulary. - Rehearsing the meanings and spellings from the Terminology and Key Vocabulary – these will not all be given at once; children will be provided with lists of spellings across the term. - Please ensure your child has their full PE kit in school for a Monday and Tuesday. - Homework will be given out on a Friday and will be due in on a Wednesday. - Reading books and records need to be in school every day. It is expected that children will read 5 times a week and this needs to be evidenced with a signature in the reading record. 	

- Fast Spelling and Fast Maths - We do not do weekly spelling or multiplication tests, we do something called Fast Spelling & Fast Maths, which involves regular targeted practice in class. Please support your child with learning the words and sounds listed on the knowledge organiser and ensuring your child know their multiplication tables up to 12 x 12.
- Your child will also be given My Maths weekly homework to complete online, which will support their learning in class. If they are unable to access the internet at home, they can go to homework club during their lunch break.
- Every Friday, we will be sharing topical news items from the local area and around the world and would like your child to do some research of their own to share news with the rest of the class.
- This year the children have been given Activity Passports. They include a range of activities that they can complete at school as well as some that they may like to complete at home. Children can bring into school evidence of:
 - Reading in an unusual place.
 - Making up a new game.
 - Doing a blind folded taste test.
 - Visits to museums.
 - Planning and cooking meals.

Year 3 and 4 Statutory Spellings

accident	caught	eighth	heard	minute	possible	strange
accidentally	centre	enough	heart	natural	potatoes	strength
actual	century	exercise	height	naughty	pressure	suppose
actually	certain	experience	history	notice	probably	surprise
address	circle	experiment	imagine	occasion	promise	therefore
answer	complete	extreme	increase	occasionally	purpose	though
appear	consider	famous	important	often	quarter	although
arrive	continue	favourite	interest	opposite	question	thought
believe	decide	February	island	ordinary	recent	through
bicycle	describe	forward	knowledge	particular	regular	various
breath	different	forwards	learn	peculiar	reign	weight
breathe	difficult	fruit	length	perhaps	remember	woman
build	disappear	grammar	library	popular	sentence	women
busy	early	group	material	position	separate	
business	earth	guard	medicine	possess	special	
calendar	eight	guide	mention	possession	straight	

New Curriculum Spelling List Years 5 and 6

accommodate
accompany
according
achieve
aggressive
amateur
ancient
apparent
appreciate
attached
available
average
awkward
bargain
bruise
category
cemetery
committee
communicate
community
competition

conscience
conscious
controversy
convenience
correspond
criticise
curiosity
definite
desperate
determined
develop
dictionary
disastrous
embarrass
environment
equip
equipped
equipment
especially
exaggerate
excellent

existence
explanation
familiar
foreign
forty
frequently
government
guarantee
harass
hindrance
identity
immediate
immediately
individual
interfere
interrupt
language
leisure
lightning
marvellous
mischievous

muscle
necessary
neighbour
nuisance
occupy
occur
opportunity
parliament
persuade
physical
prejudice
privilege
profession
programme
pronunciation
queue
recognise
recommend
relevant
restaurant
rhyme

rhythm
sacrifice
secretary
shoulder
signature
sincere
sincerely
soldier
stomach
sufficient
suggest
symbol
system
temperature
thorough
twelfth
variety
vegetable
vehicle
yacht