



Cramlington Village Primary School
EYFS Science REAL Projects template Spring 2020

Project Name	Project summary What you're going to do and why	Essential question This should be inspiring, not able to be 'googled', requiring you to conduct in depth research and relate to a real world issue	Final project outcome Deadline date? How you will promote? Who will be invited?
What makes a good Scientist?	Learn about the different roles in doctors, dentists, midwives, opticians and how they help us. Explore how to keep our bodies healthy and what we need to keep our teeth, eyes and brains healthy.	How do doctors keep us healthy? What makes a healthy diet?	Legacy: Care home visits Care home afternoon teas Care home links and book made to share

Wow moment This needs to happen within the first week of term - preferably on the first day	Key staff	Key contact numbers/websites/resources	Classroom environment What will you be doing to your classroom? What resources do you need	Key text
Wow nurse visit and hand washing germs experient	Rebecca, Christy, Danielle Jeanette	<u>Rivenhall Dental Practice</u> <u>Rivenhall High Pit Road</u> <u>01670 712221</u> <u>Yarrow & Harvey Optometrists</u> <u>The Village Surgery, Dudley Ln, Cramlington NE23 6US</u> <u>Phone: 01670 715747</u>	Doctors surgery Baby clinic Nurse station Dentist optician Baby washing station	Dr Fen at number 10 non fiction texts about the body Doctor duck From head to toe Peace at last

Science planning

Week 1 6.1.20	Week 2 13.1.20	Week 3 20.1.20	Week 4 27.1.20	Week 5 3.2.20	Week 6 10.2.20
<p align="center"><u>Explaining Science and classification</u></p> <p><u>What makes a good doctor or nurse?</u></p> <p>Monday School nurse what she does and how she can tell if we are healthy - (song Heads shoulders, knees and toes) explain how to know we are alive with a heartbeat and breathing, germs and personal hygiene</p> <p>Tuesday Introduce Dr Duck story/ T4Wr story non fiction text on keeping a healthy body and</p> <p>Wednesday Bath a new baby in the classroom - see jobs</p> <p>Thursday identify key body parts, using some extension of language for some parts of the body - draw around a body - and label</p> <p>Nursery to focus on basic, knee, elbow, etc</p> <p>Reception to talk about more intricate aspects of the body - a different part each day - highlighting three or four new words in the vocabulary that will help them to label body parts more scientifically.</p> <p>Friday T4Wr practise, floor</p>	<p align="center"><u>Explaining Science and classification</u></p> <p><u>How do doctor's know we are healthy?</u></p> <p>Monday What does a healthy body need? Oxygen, breathing rate, healthy balanced diet, sleep, exercise (Dr Gorton visit) or use non fiction stimulus for teaching whole class/circle times in nursery.</p> <p>Tuesday What is the effect of exercise on key parts of our bodies when we exercise? Talk about how exercise helps your heart grow stronger as well as your muscles.</p> <p>WednesdayWhat happens when we break a bone - example of an x ray and what it shows underneath our skin, using visual check on our skin to see if bones are ok, strengthening bones through diet and exercise.</p> <p>Thursday What part calcium plays in our diet - where can we get calcium for healthy bones and teeth? milk and dairy for healthy bones xrays? Looking inside our bodies? Calcium taste tests.</p> <p>Friday T4Wr practice and floor book reflection time as well as</p>	<p align="center"><u>Working Scientifically/designing experiments</u></p> <p><u>Are all bodies the same? How can we find out?</u></p> <p>Can they talk about similarities between bodies? Stem sentence oracy new vocabulary</p> <p>Can they talk about differences between bodies?</p> <p>Monday Compare sizes of hands and use for measuring activities.</p> <p>Tuesday How do our hands/ bones change as we grow?</p> <p>Wednesday Compare feet sizes and use them as a non standard measure for a variety of lengths.</p> <p>Thursday Compare hand spans and use them as a non standard measure for a variety of lengths.</p> <p>Friday T4Wr and floorbook reflection time. Oracy focus using stem sentences.</p> <p>Investigation Look at fingerprints using the digital blue microscope/</p>	<p align="center"><u>Working Scientifically/designing experiments</u></p> <p><u>Care home visit this week to start if possible</u></p> <p><u>What makes a healthy diet? It's all about food</u></p> <p>School nurse dietician? Taste testing each day each groups</p> <p>Monday What is a diet? Diet is all about the food we eat. If we talk about diet. Different types of food groups taste test bread types white, wholemeal, granary, flatbreads, gluten free.</p> <p>Tuesday fruit and veg taste test which foods they think are healthy, the importance of a balanced diet.</p> <p>Wednesday fats/sugars - crackers with different types of butters - cashew nut butter, olive spread, lurpak, almond nut butter</p> <p>Thursday proteins taste test, taste testing different meats,</p> <p>Friday taste tests food groups sorting, dairy, protein, carbohydrates,fruit</p>	<p align="center"><u>Data/tables/graphs and drawing conclusions</u></p> <p><u>How do we know our teeth are healthy?</u></p> <p>Monday Meet the dentist. Learn how to brush teeth properly, what makes teeth healthy, keeping sugar intake to mealtimes only, good teeth brushing, good diet for calcium, how many teeth do we have? When do teeth fall out? Why are teeth good for us to have? Stories fiction/non fiction about teeth?</p> <p>Tuesday looking at teeth in the mirror, smiling, how our teeth show our emotions, describe saliva, use disclosing tablets to highlight where plaque can be seen</p> <p>Wednesday Bring a toothbrush to school day....look at parts of the teeth that are under the gum in more details.</p> <p>Thursday changing teeth types of teeth and the jobs they do</p> <p>Friday T4Wr and floorbook reflection time. Oracy focus using stem sentences.</p> <p>Graphwork/pictogram Use pictogram to show how</p>	<p align="center"><u>Data/tables/graphs and drawing conclusions</u></p> <p><u>What makes a good optician?</u></p> <p>All things bright and beautiful RE song "He gave us eyes to see things..."</p> <p>Investigation table to be set up to explore, children to be taught what is on it on Mondays in both classes and how to look after it</p> <p>Monday Introduce the topic of eyes - songs about eyes and what we see, then consider exploring the world</p> <p>Tuesday Meet an optician - possibly invite one in or visit the opticians in the town.</p> <p>Wednesday looking after our eyes, keeping our eyes safe and tiredness, Explore what sort of lenses we can use to increase /magnify things, consider</p> <p>Thursday What happens if our eyes stop working as well? How do we know if that happens? What can it mean?</p>

<p>book reflection of the week with photos</p> <p>Week 1 investigation/experiment - Monday Hand washing investigation led by school nurse How can we measure the temperature of the water? What temperature of water is best for washing germs off hands? Why does the water need to be hand hot when bathing a baby?</p> <p>Home link investigation Collect photos from being born, 1st to 4th birthdays. Talk about differences over time, and review this as a class when Home Links are discussed in Circle time. How has our body changed?</p> <p>Finding out about the names and use of different body parts through songs, games, rhymes and stories.</p>	<p>to finish other activities started.</p> <p>Week 2 investigation What is the effect of exercise on key parts of our bodies when we exercise?</p> <p>Every day outside, counting/measuring breaths and heart rates, using sand timers/stopwatches(used by adults) for 60 seconds at a time. Walking, running, and at rest. Use hands to locate heartbeats, count how many breaths in a sandtimer when at rest and when we have been running/exercising.</p> <p>Home link investigation Using stairs in the house - see if a member of your family can measure your breathing and complete the graph - differentiate for Nursery and Reception</p> <p>What are the different parts of our body called? Painting self portraits – labelling -</p> <p>Using the digital camera to photograph different body parts – labelling & writing captions.</p> <p>Making own page about themselves for an ‘All About Me’ class book.</p> <p>Explore sounds which can be made using various body parts. Help chn to begin to discover and talk about textures through investigating a foot feely box.</p> <p>During circle times, support chn talking about what they can do/ achieve using different body parts.</p>	<p>visualizer and observe how they are all different.</p> <p>Home link investigation hand prints and hand spans of family members compare and order</p>	<p>and vegetables, Handling data graph for each food group</p> <p>Investigate food groups using risk assessed taste testing. Explain how they would never usually taste anything unless an adult tells them it’s safe to do so. Lemon juice, syrup or honey, vinegar,</p> <p>Homelink investigation Children use three plates and draw or photograph onto the plates the food groups they eat across one day considering whether there is a balance? 5 portions of fruit and veg?</p>	<p>many teeth each child has, adults in class have? Data and table to show eye/hair colours in class</p> <p>Investigation Experiment to see what impact good teeth brushing has on plaque removal on our teeth Use a giant set of teeth (if available) and put plaque such as coca cola, sugary sweet etc etc onto the teeth, then brush and see if the plaque all goes. Using a disclosing tablet see if the tablet shows up dark plaque. If the dark plaque is still there, teeth haven’t been brushed properly. See if the children can take a disclosing tablet and then re-brush their teeth after being shown how to do it properly.</p>	<p>people’s eyes work better Friday Visual impairment - see if we can ask Alfie to discuss if there are things that he might be happy to share with the class, ask if Joyce, from the visual impairment team will come and talk to the children, about visual impairments, and what sort of things can be done to help</p> <p>Investigation Children can explain and investigate what happens when you use a magnifier, use magnifying glasses, telescopes, binoculars, microscopes, coloured lenses, or kaleidoscopes, using coloured cellophane to create their own kaleidoscope https://www.youtube.com/watch?v=h5yG0_-cYn8 Sight optician Hearing s&l visitor</p> <p>Homelink Investigation Find and old tube such as a kitchen roll, foil or toilet roll, and create your own binoculars, or telescopes to bring into school.</p> <p>Explore using sense of touch to identify and describe a variety of textures around d the environment. Go on a touching walk around the local area. Making giant feely boxes for exploration & discovery.</p> <p>Create texture treasure baskets and use to develop</p>
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				Communication & Language skills. Use a variety of finger rhymes to reinforce numbers one to five. Explore how we can actively change the texture of different items and substances.
Half term				
Week 7 2.3.20	Week 8 9.3.20	Week 9 16.3.20	Week 10 23.3.20	Week 11 30.3.20 Oracy open day this week
<p style="text-align: center;"><u>Explaining Science and classification</u></p> <p>Week 7 Hearing - how do we hear things? People who help us with hearing - nurse hearing checks What do grommets do? Noise cancelling headphones Video of babies hearing sounds for first time Sound basket - Shonette Basson Wood</p> <p>Key texts - 'Peace at last'</p> <p>Mystery Sound of the day - https://www.stem.org.uk/resources/elibrary/resource/32005/listening-sounds Visit - paramedic to show chn different equipment to detect sounds in their bodies</p> <p>Monday - What can we hear in a sound walk in school? Tuesday What can we hear in a sound walk outside? Wednesday How can we change the sounds we hear? Make things quieter make things louder - How many different sounds can an object make? By tapping it, shaking it, banging it, using different objects to tap it. Thursday - Visit to care home - key questions they prepare to practise so they can introduce themselves - oracy programme: 1. my name is 2. I am 4 years old, 3. I go to school in Cramlington Village Primary School 4. I live in a house in Cramlington Friday - Sponsored silence - then show video of babies hearing sounds for first time Week 7 Investigation Investigating different sounds. Echoes - how can they make an echo?</p>		<p style="text-align: center;"><u>Working Scientifically/designing experiments</u></p> <p>Week 9 Key text Owl who was afraid of the dark</p> <p>Monday What is the dark ? Shadows Possibly use shadow puppets? Black out pens (can the children explore the pens and make marks?) Tuesday Why is it dark? Light sources - sun, torch, candle Talk about how the Earth spins to create day and night Wednesday How can we see in the dark? Torches, light UV lights lights candles - experiment using torches to shine through different objects - is it opaque, transparent, translucent? Thursday care home visit 1. In my family I have a brother, a sister and a Mum 2. My favourite story is 3. My favourite song is 4. My favourite food is - extend with additional info for more able.</p> <p>Friday Talk for writing the owl who was afraid of the day Can we see in the dark very well? Blindfold activities(obstacle course style) can a friend give us instructions to move around safely to reach the end. (Oracy)</p> <p>Making an invitation for the residents for the care home(next week)</p> <p>Homelink</p> <p>Week 9 Investigation Children to draw around each other's shadows on the yard and track throughout the day.</p>		<p style="text-align: center;"><u>Data/tables/graphs and drawing conclusions</u></p> <p>Week 11 Monday Party planning for the afternoon tea - create a list of jobs and start to make placemats for the people coming to the afternoon tea. Tuesday Cake baking for afternoon tea Wednesday Baking and sandwich making, ready for the afternoon tea. Voting for which is our favourite which one do we think will be most popular? Thursday Planning an afternoon tea for residents to the Hartford Court: 1. My favourite sandwich is 2. My favourite cake is 3. I've learned that doctors... 4. I've learned that audiologists...</p> <p>Friday</p> <p>Homelink Week 11 investigation Can the children make a thank you card for the residents from the care home? Can they write their name inside, can they draw a picture of themselves and a resident?</p>

Using toilet tubes, making own tubes to create sound louder and quieter, string telephones.

Homelink - sound walk ?

Week 8

Light and dark - sleep

Key texts - Can't you sleep little bear

Sleep counter/calendar - how many sleeps?

School nurse to come in to talk about sleep.

Monday introduction to the book - why do we sleep? Key reasons, helps rest our body, helps to give us energy, to help food digest, to help eyes rest - helps our bodies to grow - School nurse visit to explain reasons

Tuesday What helps us sleep? List a routine together, that children can share at home and practise. Write a list that can help the care home residents get to sleep to take to them.

Wednesday Dreams - what dreams they have that are nice, scary dreams called nightmares, what we can do to help get back to sleep. Stories about dreams. Make a dreamcatcher.

Thursday Care home visit - children take up sleep routines.

Friday snuggle day

Parents use classroom graph to put on how many hours sleep each child had or what time they went to bed.

Week 8 Investigation

Find a torch and shine it against a wall. What shadow shapes can you make using your hands and fingers? Can you put toys in front of the torch to see their shadow shapes? If you move the toy nearer the torch, does it make the shadow bigger or smaller? Now, move it away. What happens?

Homelink

What makes a good night's sleep? Tips for a good night's sleep.

Top 5 things sleep routine at home.

Week 10

Day and Night

Key text - owl babies

Monday - what happens in the day and night - routines - different things we do in the day and in the night.

Tuesday - animals that come out at night - nocturnal animals

Wednesday - Provide natural materials/ objects in a large activity tray, along with a shoebox. The children can explore the best way to use the resources to create a comfortable home for the owl babies. Why do they need this type of home?

Would it be a good place for us? Why not?

Thursday care home visit

Friday

Week 10 Investigation

Create dark spaces for the children to experiments with glow sticks and torches - how dark does it need to be?

Home link

Forest school- planting activity(what grows best where?)

Lesson	Key milestones What are you going to do/ write/create/build?	Learning goals What key parts of the curriculum will this include? (long term plan holds all of the curriculum content) What skills will be practised?	
		Nursery	Reception
Focus literacy	<p>Books - Doctor Duck - Steve smallman From head to toe - Eric Carle Polar bear, polar bear - what do you hear? - Eric Carle Brown bear, brown bear - what do you see? - Eric Carle</p> <p>talk 4 writing - My body has..... My body has two eyes and one nose My body has ten fingers and ten toes My body has lots of teeth to eat My body has hair that I keep neat My body has one mouth for talking My body has two legs for walking I love my body it makes me, me I love my body and my body loves me.</p> <p>Nursery Rhymes/Songs Miss Polly had a dolly Head shoulders knees and toes</p>	<p>C&L L&A - “listens to stories with increasing attention and recall” encourage to tell you what has happened. “Joins in with repeated refrains and anticipates key events and phrases in rhymes and stories” U - “Beginning to understand ‘why’ and ‘how’ questions” - questioning chn and rephrasing to ‘what’ questions instead of why at first. What would we use this stethoscope for? Why would we use this stethoscope? S- “beginning to use more complex sentences” - oracy “Can retell a simple past event in correct order” - make a book about a trip or care home visit “Uses talk to connect ideas, explain what is happening and anticipate what might happen next, recall and relive past experiences” - encourage chn to predict what might happen next in a story or instructions for cooking or retelling their time at the care home/trip</p> <p>R - “Joins in with repeated refrains and anticipates key events and phrases in rhymes and stories” “Beginning to be aware of the way stories are structured” - talk about familiar stories such as 3 little pigs, what happens in the beginning, middle and end “Knows that print carries meaning and, in English, is read from left to right and top to bottom.” - asking where to start reading from and using finger to follow</p> <p>W - Make books with the chn of activities they have done - trip, care home visit using photos of them as the illustrations Model writing for a purpose - shopping list, a message to someone Model writing stories and poems together - Talk 4 writing</p>	<p><u>Communication and Language</u> Listening and attention</p> <p>Understanding</p> <p>Speaking</p> <p><u>Literacy</u> Reading</p> <p>Writing</p>

Focus numeracy	<p>Nursery Shape, space and measure Measuring ourselves, height, hand - measuring using blocks, pencils etc Measuring with rulers and tape measures. Daily routines Days of the week Data How many people voted for ranch sandwich as their favourite? Using the building blocks to represent each vote</p>	<p>N “Shows curiosity about numbers by offering comments or asking questions” - model asking qs such as “how many pots will fit on the shelf?” “Shows an interest in numerals in the environment” - numbers on pens, pencils, boxes</p> <p>SSM Uses positional language - Demonstrate the language for shape, position and measures in discussions, e.g. ‘sphere’, ‘shape’, ‘box’, ‘in’, ‘on’, ‘inside’, ‘under’, long, longer’, ‘longest’, ‘short’, shorter’, ‘shortest’, ‘heavy’, ‘light’, ‘full’ and ‘empty’</p>	<p>Mathematics Number Introducing zero Number bonds to 5 Counting 6,7,8 Counting 9,10 Comparing groups to Shape, space and measures Use a simple table by recording in pictures and graphs Add to block charts by counting up Add to pictograms to create data charts and key and scales Use more or less to compare opinions and ideas Comparing length weight and heights</p>
Other areas		<p>PSED SC SA - “is more outgoing towards unfamiliar people and more confident in new social situations” - care home visits and visitors MF&B - “can usually adapt behaviour to different events, social situations and changes in routine” - care home visits and visitors</p> <p>PD M&H - 22-36 “Squats with steadiness to rest or play with object on the ground, and rises to feet without using hands”- sticky kids PE 30-50 “Moves freely and with pleasure and confidence in a range of ways, such as slithering, shuffling, rolling, crawling, walking, running, jumping, skipping, sliding and hopping” - sticky kids, giving instructions to all do the same movement “Runs skilfully and negotiates space successfully, adjusting speed or direction to avoid obstacles” - whole class teaching, planned PE time - during outdoor play, creating obstacles, faster slower games “Can stand momentarily on one foot when shown” sticky kids PE “Can catch a large ball” whole class teaching, planned PE time H&SC - “observes the effects of activity on their bodies” - changes after exercise, fast heavy breathing, fast heart beat, feeling hotter</p>	<p>Personal, Social and Emotional Development Self-confidence and self-awareness Managing feelings and behaviour Making relationship</p> <p>Physical Development Moving and handling Health and self-care</p> <p>Understanding the World People and communities The world Technology Expressive Art and Design Exploring and using media and material Being imaginative</p>
Week 1 <u>6/1</u>	<p>What makes a good doctor or nurse? Dentist, nurse, first aid - school nurse Investigation - hand washing HomeLink Collect photos from being born, 1st to 4th birthdays. Talk about differences over time, and review this as a class when Home Links are discussed in Circle time. How has our body changed?</p>		

<p>Week 2 <u>13/1</u></p>	<p>What do doctors need to know about our bodies? Investigation - What is the effect of exercise on key parts of our bodies when we exercise? Home link investigation Using stairs in the house - see if a member of your family can measure your breathing and complete the graph - differentiate for Nursery and Reception</p>		
<p>Week 3 <u>20/1</u></p>	<p>Are all bodies the same? Can they talk about similarities between bodies? Stem sentence oracy new vocabulary Can they talk about differences between bodies? Investigation - Look at fingerprints using the digital blue microscope/ visualizer and observe how they are all different. Homelink- hand prints and hand spans of family members compare and order</p>		
<p>Week 4 <u>27/1</u></p>	<p>What makes a healthy diet? It's all about food School nurse dietician? Taste testing each day each groups Investigation - taste testing every day - make a tally or graph with favourites. Homelink investigation Children use three plates and draw or photograph onto the plates the food groups they eat across one day considering whether there is a balance? 5 portions of fruit and veg?</p>		
<p>Week 5 <u>3/2</u></p>	<p>How do we know our teeth are healthy? Use pictogram to show how many teeth each child has, adults in class have? Investigation Experiment to see what impact good teeth brushing has on plaque removal on our teeth See if the children can take a disclosing tablet and then re-brush their teeth after being shown how to do it properly. Homelink Video of brushing teeth steps to brush teeth</p>		
<p>Week 6 <u>10/2</u></p>	<p>What makes a good optician? All things bright and beautiful RE song "He gave us eyes to see things..."</p>		

	<p>Investigation Children can explain and investigate what happens when you use a magnifier, use magnifying glasses, telescopes, binoculars, microscopes, coloured lenses, or kaleidoscopes, using coloured cellophane to create their own kaleidoscope.</p> <p>Homelink Investigation Find an old tube such as a kitchen roll, foil or toilet roll, and create your own binoculars, or telescopes to bring into school</p>		
Half term			
Focus literacy		<p>Books - Peace at last - talk 4 writing Can't you sleep little bear? The owl who was afraid of the dark Owl babies</p>	
Focus numeracy			<p>Spring 2 Combining two groups to find the whole Number bonds to 10 tens frame Number bonds to 10 part whole model Spatial awareness 3D shapes 2D shapes</p>
Week 7 <u>2/3</u>	<p><u>Week 7</u> <u>Hearing - how do we hear things?</u> People who help us with hearing - nurse hearing checks What do grommets do? Noise cancelling headphones Video of babies hearing sounds for first time Sound basket - Shonette Basson Wood</p>		
Week 8 <u>9/3</u>	<p><u>Week 8</u> <u>Light and dark - sleep</u> Key texts - Can't you sleep little bear Sleep counter/calendar - how many sleeps?</p>		

	School nurse to come in to talk about sleep.		
Week 9 16/3	<p><u>Week 9 The dark</u> <u>Key text</u> Owl who was afraid of the dark</p> <p><u>Homelink</u> Making an invitation for the residents for the care home(next week)</p> <p><u>Week 9 Investigation</u> Children to draw around each other's shadows on the yard and track throughout the day.</p>		
Week 10 23/3	<p><u>Week 10</u> <u>Day and Night</u> <u>Key text - owl babies</u></p> <p><u>Week 10 Investigation</u> Create dark spaces for the children to experiments with glow sticks and torches - how dark does it need to be?</p> <p><u>Home link</u> Forest school- planting activity(what grows best where?)</p>		
Week 11 30/3	<p><u>Week 11</u> <u>Bringing it altogether Oracy day</u></p> <p><u>Homelink</u> Can the children make a thank you card for the residents from the care home? Can they write their name inside, can they draw a picture of themselves and a resident?</p>		
Forest school		week 10- plant experiment (what grows best in different environment?)	
Nursery homelink			
Reception homelink			