

Year 3 and 4 Key Skills to be covered, taken from National Curriculum - pitching at the correct year group and differentiation within plan for different groups

Be specific in the key skills, and make them more understandable for children. Consider what it is YOU feel the children should learn as well as the National Curriculum:

#where the planning says worksheet, this is for my reference as to the task they will be carrying out. Their task may be written out and recorded in their books not on a sheet.

OVERVIEW

Session 1: Children will learn about the need for a varied diet in order to get the right nutrition, then either sort food into groups, giving reasons, or visit a supermarket to learn more about different food groups.

Session 2: Children will continue to learn about the need for a varied, balanced diet by looking at food pyramids and examples of healthy meals (and planning their own). They will also consider ways in which people with dietary restrictions can have a balanced diet.

Session 3: Children will find out about what some animals eat. They will use technical vocabulary to describe different types of animal, and present their findings (following research about animals, their habitats and their diets) in their own words.

Session 4: Children will think about what questions could be asked to learn more about what pets eat. They may then either plan and conduct an investigation, or study a given set of results. In either case, children will present data using pictograms or bar graphs.

Session 5: Children will learn about bones in humans and other animals. They will then either label skeleton diagrams, or identify similarities between the skeletons of a variety of animals.

Session 6: Children will learn about the functions of the skeleton in vertebrates, and how some invertebrates move and are protected in different ways. They will then research.

Session 7: Children will continue to learn about how the body moves, focussing on the ways muscles work. They will then study a variety of sources to find out more about muscles, noting their findings. and describe various invertebrates.

NATIONAL CURRICULUM OBJECTIVES

HEALTH AND NUTRITION:

- Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.
- An adequate and varied diet is beneficial to health (along with a good supply of air and clean water).

Pupils might work scientifically by:

- Comparing and contrasting the diets of different animals (including their pets).

Animals, skeletons and movement:

- Identify that humans and some other animals have skeletons and muscles for support, protection and movement.
- Identify animals (vertebrates) which have a skeleton which supports their body, aids movement & protects vital organs (be able to name some of the vital organs).
- Identify animals without internal skeletons/backbones (invertebrates) and describe how they have adapted other ways to support themselves, move & protect their vital organs.
- Know that muscles, which are attached to the skeleton, help animals move parts of their body.

Possible Cross-curricular links, especially opportunities for English, Mathematics and Computing within teaching:

English links	Creating an information page/writing a description
Mathematics links	Pictograms and graphs
Computing links	Using the computers for research
Other links	PSHE- how the choices we make now effect our long term health/art-creating a healthy plate of food using clay/plasticine

Possible Experiences including visits/visitors/other:

Consider what could augment your planning to really enthuse the children in your class:

- Skeleton body model in the class
- X-rays of skeletons
- Looking at real animals (Receptions snails/fish/pets)

Display/Resources ideas:

Consider what resources could be brought into the classroom and what display work could be completed either before/during or after topic is taught:

- Food pyramid references/food plates made during homework/food packaging

Session	Key Objective from skills listed above (What is it that you want the children to learn?)	Possible Activities including use of Computing and other technologies, and showing at least 3 differentiations	Outcomes/Evidence of what they have learnt (Where will this be found? Will it be in a book? Topic book? Display? Photographic evidence?)	Possible extension into homework if appropriate to enhance and deepen learning
<p>1</p> <p>Resources: Slides Worksheet 1A/1B/1C/1D Picture Cards Group Cards Digital cameras - optional (FSD? activity only)</p>	<p>To identify that humans get the nutrition they need from what they eat.</p> <p>N.C. OBJ: Pupils should be taught to:</p> <ul style="list-style-type: none"> ▪ Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat. 	<p>Elicitation 20mins</p> <p>Session 1 hr</p> <ul style="list-style-type: none"> ➤ What is your favourite food? Invite children to share their ideas. ➤ Why do we eat food? Again, children to share their ideas, then go through the information on the slides. ➤ Explain that there are lots of different types of foods and that humans need a variety of foods to be healthy. Show children the foods on the slides. How could you organise these foods into groups? ➤ Children to discuss ideas or to group on mini whiteboards in pairs or small groups. Invite children to share how they grouped the foods. Did everyone group them the same why? Why or why not? ➤ Go through the different information on the different food groups on the slides and explain which foods are needed for growth and which are needed for energy. <p>Kayleigh to take a group of 5 pupils on an out of school hands on experience: Organise to take children on a visit to a local shop (SPAR) to look at the different foods available. On worksheet 1C, children to list as many different types of food as they can spot as they walk around. In the box, children to list five of their favourite foods as they spot them. Alternatively, children could take photos of the foods they spot to print out once they get back to the classroom. Use the iPad (Billy, Alfie, Tyron, Curtis, JJ) Once back in the classroom, challenge children to sort the foods they discovered into groups. Children to put the foods into their own groupings and explain how/why they grouped them in this way.</p> <p>Lower ability: Provide children with the Picture Cards and Group Cards. Spread the Group Cards out on the table or put each one into a different hoop. Support children in a group to organise the foods into the correct categories.</p> <p>Middle ability: Provide children with the Picture Cards and ask them to organise the foods into the correct groups on worksheet 1A. Children to list each food in the correct column.</p> <p>Higher ability: On worksheet 1B, children to list as many foods as they can think of that would fit in each of the food groups. Children to then complete the sentences about foods for growth and foods for energy.</p>	<p>ASSESSMENT QUESTIONS:</p> <ul style="list-style-type: none"> 🚩 Do children know that humans get nutrition from what they eat? 🚩 Can children identify and group a variety of foods? 🚩 Can children recognise foods for growth and foods for energy? <p>WORK IN BOOKS PHOTOS</p>	<p>Bring in a range of food packaging.</p>

		<p>Plenary: Tell children that they will be playing a game in which they have to state whether a food is eaten for energy or for growth. You will say a food and if it is for growth, children to stand on their tiptoes and reach as high up as they can. If it is for energy, children to run on the spot. Name several different foods (e.g. fish, pasta, potatoes, chicken, cheese, etc.) and children to show which group they think it belongs to.</p>		
<p>2 Resources: Slides Worksheet 2A/2B/2C Food Pyramid sheet</p>	<p>To identify that a balanced diet is needed in order to stay healthy.</p> <p>Health and Nutrition: <ul style="list-style-type: none"> An adequate and varied diet is beneficial to health (along with a good supply of air and clean water). </p>	<ul style="list-style-type: none"> How many reasons can you think of for why we need food? Children to think, pair, share their ideas, then list on the slides. Explain that in order to stay healthy, we cannot eat just any food. We need to eat a balanced diet. Explain what is meant by this, showing the food pyramid and the example of a healthy meal. People who do not eat the correct amount of each food group can start to feel poorly. Some people cannot eat certain foods. How can they make sure they still eat a balanced diet even though they cannot eat certain things? Go through each of the scenarios (e.g. a vegetarian and a coeliac) and ask children to suggest other foods they could eat to make sure they are getting a balanced diet. <p>Lower ability: On worksheet 2A, children to draw pictures for each of the sections on the food pyramid to illustrate which foods we should eat most of and which foods we should eat least of.</p> <p>Middle ability: On worksheet 2B, children to use the foods in the word box to complete the food pyramid to show which foods we should eat most of and which foods we should eat least of. Children to illustrate when finished.</p> <p>Higher ability: On worksheet 2C, children to plan three different balanced meals for the people described on the worksheet. How will you make sure each person is able to eat a balanced diet despite their dietary restrictions?</p> <p>PLENARY: How balanced is your diet? Do you think you are eating the correct amount of each different food group? If not, how could you change your diet so that you are eating more healthily? Children to discuss their ideas, sharing their thoughts with the class if they feel comfortable doing so.</p>	<p>Work in books Display of plates</p> <p>ASSESSMENT QUESTIONS: <ul style="list-style-type: none"> Do children know that humans need to eat to grow and move? Do children understand what is meant by the term 'balanced diet'? Can children identify and describe which food groups we should eat most of and which food groups we should eat least of? </p>	<p>Creative Homework; Provide each child with a paper plate. Challenge children to draw a healthy, balanced meal on their plate. If necessary, children to use the Food Pyramid sheet as a guide to help them. Alternatively, children could make papier mâché foods out of newspaper, modroc or other modelling materials to stick to their plates and then paint when dry.</p>
<p>3 RESOURCES: Slides Worksheet 3A/3B/3C/3D</p>	<p>To investigate which foods different animals eat.</p>	<ul style="list-style-type: none"> Explain that animals need to eat to get their nutrition, just like humans do. Show children the pictures of different animals on the slides. For each animal, ask children what they think the animal eats and discuss as a class. Go through the information on the slides about what animals eat and some of the terms associated with this: herbivore, carnivore, omnivore, predator, prey. 	<p>Class book</p> <p>ASSESSMENT QUESTIONS: <ul style="list-style-type: none"> Do children know that different animals have different diets? </p>	

<p>Books, internet, etc. Animal Cards Resources:</p>		<ul style="list-style-type: none"> ➤ Explain that today children will be finding out about some foods that different animals eat. If we don't know what an animal eats, how can we find out? Children to share ideas. <p>Lower ability: focus group with KR in the classroom using class computers and iPad. Provide children with books, access to internet, etc., and ask them to find out what each of the animals listed on worksheet 3A eats.</p> <p>Mixed ability pairs: Give each child one of the Animal Cards and tell them that they will be responsible for finding out what the animal they have picked eats. Children could also investigate where the animal lives, whether it is a herbivore, carnivore or omnivore, predator or prey, etc. Give children some time to find out the answers using books, the internet, etc.</p> <ul style="list-style-type: none"> • Children to present the information they have found out about their animal's diet on a sheet of plain paper, a word processed document or using the template on worksheet 3D. Children to include a picture of their animal, details about where the animal lives, what they eat, whether they are herbivores, carnivores or omnivores, etc. • When all children have finished, collect all the pages together to create a class book about what different animals eat. Children could each present their page to the rest of the class and then leave the book in the reading area for children to look at in their own time. <p>Plenary: Do we eat any of the same foods as the animals we have researched today? If so, what do we eat that is similar? What do you think are the main differences? between what humans eat and what animals eat? Invite children to share their ideas.</p>	<ul style="list-style-type: none"> ✚ Can children use secondary sources to find out about the diets of different animals? ✚ Can children recognise whether an animal is a herbivore, carnivore or omnivore? 	
<p>4 RESOURCES: Slides Worksheet 4A/4B/4C/4D/4E Results Sheet</p>	<p>To carry out an investigation to find out what pets eat.</p> <p>Pupils might work scientifically by:</p> <ul style="list-style-type: none"> ▪ Comparing and contrasting the diets of different animals (including their pets). 	<ul style="list-style-type: none"> ➤ Do you have a pet at home? What does your pet eat? Children to share their ideas. ➤ Display the question on the slides: Do all cats eat the same food? Ask children how we could find the answer to this question. What information would we need to gather and how could we gather it? Invite children to share their ideas. ➤ Show children the example of a tally chart and corresponding pictogram showing the results of a questionnaire to find out what cats eat. What do these results show you? How accurate do you think these results are? How could we make them more accurate (e.g. ask more people, give more options, etc.)? ➤ Tell children that today they will be asking and investigating a question about what pets eat. What questions could we investigate? Children to think, pair, share their ideas and then list questions on the slides. <p>Lower ability: Children to investigate the question 'What do dogs eat?' on worksheet 4A by asking a number of people with dogs which of the categories their pet dog eats</p>	<p>Work in books</p> <p>ASSESSMENT QUESTIONS:</p> <ul style="list-style-type: none"> ✚ Can children pose questions that can be investigated? ✚ Can children gather data systematically? ✚ Can children present and evaluate the results of an investigation? 	<p>Investigative homework: Find out what their pets eat, draw the packaging and write the list of ingredients. Is your pet food healthy for your pet?</p> <p>Or What do wild animals eat? Why is it healthy for them?</p>

		<p>most often and marking on the tally chart. When finished, children to then complete the pictogram on the worksheet and answer the questions. (most of the teachers)</p> <p>Middle ability: On worksheet 4B, children to choose which pet they would like to investigate and then choose five possible foods they might eat. Children to then ask owners what their pets eat and mark on the tally chart. Children to then complete the pictogram showing their results and answer the questions.</p> <p>Higher ability: On worksheet 4C, children to ask their own question they would like to investigate and plan the investigation. Children to then mark owners' answers on a tally chart. When they have gathered the information they need, children to mark on a pictogram on worksheet 4D and answer the questions.</p> <p>Focus group with teacher: Provide children with the Results Sheet showing some different investigations that were undertaken to find out what pets eat. Give children some time to read through these results in small groups. On worksheet 4E, children to complete a bar graph for one of the sets of results and then answer the questions on the worksheet.</p> <p>Plenary: What have we found out today about what pets eat? How do you think these animals' diets would be different if the animals were in the wild and not kept in houses? Encourage children to think back to the work they did in lesson 3 looking at what foods different wild animals eat.</p>		
<p>5 RESOURCES: Slides Worksheet 5A/5B/5C/5D Books, access to internet, etc. Picture Cards Skeleton Sheet</p>	<p>To explore human and animal skeletons.</p> <p>Animals, skeletons and movement:</p> <ul style="list-style-type: none"> ▪ Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<ul style="list-style-type: none"> ➤ What do you know about bones and skeletons? Why do you think we have bones? Children to think, pair, share their ideas, then go through the information on the slides. ➤ Ask children to feel the bones in their hands. What are the bones like? What can you feel? Invite children to share their ideas. ➤ Show children the picture of the human skeleton on the slides. Can you label any of these bones? Invite children to fill in the boxes and then check if they were correct on the slides. ➤ Explain that lots of other animals have skeletons too. What similarities and differences do you think there would be between a dog skeleton and a human skeleton? Children to think, pair, share their ideas. ➤ What about the similarities and differences between a fish skeleton and a human skeleton? ➤ Explain that animals with internal skeletons are called vertebrates. One thing all vertebrates have in common is a backbone. They may be bigger in some animals than others but all animals (and humans) with a skeleton have a backbone. Why do you think this is? Invite children to share their ideas. <p>Mixed ability pairs:</p>	<p>Labelled diagram and discussion notes and observations recorded</p> <p>ASSESSMENT QUESTIONS:</p> <ul style="list-style-type: none"> 🚩 Do children know that animals with a skeleton are called vertebrates? 🚩 Can children identify different bones in the human skeleton? 🚩 Can children compare bones in animal and human skeletons? 	<p>Research homework: Children to label as many as they can from what they already know and then use books, the internet, etc., to label any they were unsure of. Differentiated worksheet to complete.</p>

		<p>Provide children with a copy of the Picture Cards in small groups. Children to study the pictures showing the skeletons of different animals. What do the skeletons have in common? What is different about them?</p> <p>Give children a copy of the labelled skeleton on the Skeleton Sheet and a copy of worksheet 5D. Children to choose one of the animals on the Picture Cards to compare to the human skeleton and write a list of similarities and differences between the two. Encourage children to use the names on the bones when creating their lists and how strong or brittle the bones are.</p> <p>Plenary Explain to children that there are things you can do to make sure your bones are healthy and don't break easily. One way of doing this is to eat plenty of calcium in your diet. Dairy foods contain a lot of calcium. Can you think of some dairy foods that would help you keep your bones healthy and strong? Children to share their ideas.</p>		
<p>6 RESOURCES: Slides Worksheet 6A/6B/6C Books, access to internet, etc. Picture Cards Label Cards</p>	<p>To find out about how the skeleton supports and protects the body and to investigate how invertebrates are supported.</p> <p>Animals, skeletons and movement:</p> <ul style="list-style-type: none"> ▪ Identify animals (vertebrates) which have a skeleton which supports their body, aids movement & protects vital organs (be able to name some of the vital organs). ▪ Identify animals without internal skeletons/backbones (invertebrates) and describe how they have adapted other ways to support themselves, move & protect their vital organs. 	<ul style="list-style-type: none"> ➤ What would happen if we didn't have a skeleton? Invite children to share their ideas. Go through the information on the slides explaining that without a skeleton we would be a mess of skin, muscle and organs on the floor! The skeleton supports the body and keeps everything in the right place. ➤ It also protects some of our internal organs. Can you think of any organs that are protected by our skeleton? Go through the answers on the slides (brain, lungs, heart, spinal cord). Some animals do not have a skeleton inside their bodies. These animals are called invertebrates. ➤ Can you think of any invertebrates? How do they move and protect themselves? Children to think, pair, share their ideas. Go through the examples on the slides of a lobster, snail and worm. ➤ Tell children that today they will be researching some different invertebrates to find out how they are supported and protected without a skeleton. What sources of information could we use to do this? <p>HOME TEAMS: Provide children with a set of the Picture Cards in small groups. Children to organise the animals on the Picture Cards into different categories using the Label Cards. Children to then use books, CD ROMs, the internet, etc. to help them write a description for each group of animals, explaining how their bodies are supported and protected. Children could stick the pictures onto four different A4 pages and write the description for each around the pictures, then stick them all onto a large sheet of paper to create a poster.</p> <p>PLENARY: Invite children to come to the front of the class and choose an invertebrate to describe to the rest of class, explaining how their body supports and protects them, using the information they have found during the lesson. The rest of the class could ask them questions if appropriate.</p>	<p>Copies of group posters</p> <p>ASSESSMENT QUESTIONS:</p> <ul style="list-style-type: none"> 🚩 Do children know the difference between vertebrates and invertebrates? 🚩 Do children know that internal skeletons support and protect the body? 🚩 Do children know how the bodies of invertebrates support and protect them? 	

<p>7</p> <p>RESOURCES: Slides Worksheet 7A/7B/7C Fact Cards Challenge Cards End of Unit Quiz</p>	<p>To find out what muscles are and how skeletal muscles help us to move</p> <p>Animals, skeletons and movement:</p> <ul style="list-style-type: none"> ▪ Know that muscles, which are attached to the skeleton, help animals move parts of their body. 	<ul style="list-style-type: none"> ➤ We have already found out that we need a healthy diet to give us enough nutrition for energy to move, and that we have skeletons to support us and help us move around, but what else do we need to make us move? Invite children to share their ideas, then go through the information on the slides about the different types of muscles and how each movement we make requires a muscle. ➤ Go through the information on the slides explaining that skeletal muscles are attached to bones and how they contract and relax to help us move. Make sure children understand that muscles work in pairs. One muscle (the flexor) contracts and is made shorter while the other muscle (the extensor) relaxes and gets longer to move e.g. your arm, and then each reverses when you relax again. ➤ Ask children to use their hands to feel the muscles in their upper arms (biceps) as they move their forearms. What can you feel? Invite children to share their observations. ➤ Explain that animals have lots of muscles too, just like humans. Some animals have stronger muscles than others. Go through the examples on the slides, e.g. cheetah's leg muscles, bird's wing muscles, crocodile's jaw muscles. <p>ACTIVITY:</p> <ul style="list-style-type: none"> • Set up four different stations around the classroom and put one of the Challenge Cards on each station. Give children some time to go around each of the stations and complete the challenges. • Once children have explored each station, challenge them to record what they found out. This could be as a written description, as diagrams, as an information poster, etc. <p>PLENARY: End of unit quiz</p>	<p>ASSESSMENT QUESTIONS:</p> <ul style="list-style-type: none"> 🚩 Do children know that muscles help us move? 🚩 Do children know that muscles work in pairs to move different parts of the body? 🚩 Do children know that some animals have strong muscles for particular purposes? 	
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