**Science Week**

**Year 1** Lesson plan.

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| Year group: Year 1 | | Linked career: **Nurse** | Innovation: Senses test | |
| Previous learning:  ‘Animals including humans’  Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.  Identify and name a variety of common animals that are carnivores, herbivores and omnivores.  Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) | | NC objective this lesson covers:  ‘Animals including humans’  Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense | Future learning:  ‘Animals including humans’ Y2  Notice that animals, including humans, have offspring which grow into adults.  Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)  Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene | |
| Subject knowledge:  (See accompanying sheets)  -5 senses  -How we taste. (Bitter, sweet, salty, sour)  Please note there are a few items in the plan which needs to be purchased before. | | Working Scientifically and enquiry types:   |  |  |  |  | | --- | --- | --- | --- | | Enquiry Skills | | Working Scientifically | | |  | Observation: | Screen Clipping | Observing | |  | Identifying and classifying: | Screen Clipping | Making predictions | |  | Testing: | Screen Clipping | Setting up tests | |  | Research: | Screen Clipping | Asking questions | | Screen Clipping | Pattern Seeking | Screen Clipping | Recording data | |  | | Screen Clipping | Interpreting and communicating results | | Screen Clipping | Evaluating | | Key vocabulary:  **Animals including human’s unit**-  Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves, reptile, amphibian, mammal, omnivore, carnivore, herbivore, all senses.  **This session**- mouth, sweet, sour, bitter, head, shoulders, elbows, legs, arms, knees, neck, ears, eyes, mouth, hands, feet, fingers, chest, stomach/tummy, toes | |
| Previous learning or linked learning to this unit: | | | | |
| Objective | | Suggested learning (Resources can be found on Plymouth Science website for the complete unit) | | |
| Identify and name common animals including fish, amphibians, reptiles, birds and mammals. | | How big, how small- Draw a large scale on the wall and plot the children’s heights. Use corresponding animals on the same chart. Children can say I am bigger than a dog but smaller than a giraffe. Look at animal tracks (wow science). Look at animals from around the world. Group animals into habitats- amphibian, reptiles, birds and mammals. Bring animal toy to school and classify them. Linked story books: Rumble in the jungle, Commotion in the ocean, Cocka doodle do. What the ladybird heard, Big red bath, Gruffallo- identify and name animals. Creaturepedia is a lovely book for images of animals around the world. | | |
| Identify and name a variety of common animals that are carnivores, herbivores and omnivores. | | Make lift up animal masks with teeth inside- can children categorise? Make 3 plates (on front) leaves, meat and both and write the words herbivore, carnivore and omnivore on the back. Can children sort toys, small world or pictures into these categories? Use the story ‘A tiger who came to tea’ and children to write a more scientifically accurate story with things they would eat- can adapt with other animals e.g. the snake who came to tea. | | |
| Describe and compare the structure of a variety of common animals | | Who’s body part? Show children parts of animals e.g. webbed feet, children to guess the animal. Look at animal x-rays. Visit from the vet. WOW science- hybrid animals. What’s the same and what’s different- compare different animals and their environments. Sort it out- children categorise using their own criteria. WOW science- farm in the classroom. Facetime a farmer. | | |
| Identify, name and draw basic parts of the body and say which part of the body is associated with each sense. | | Use BBC learning clip. Children draw around themselves and see what body parts they can remember. Sing it, rhyme it, play it body songs e.g. one finger one thumb, Hokey Cokey, head, shoulders, knees and toes, Simon says. WOW science brilliant bodies interactive game. | | |
| British Science Week lesson | | | | |
| Sequence of learning. +WS | Suggested activities linked to the NC objective ‘Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense’ | | | You will need: |
| 1. Lesson 1     2.      3.  4  5  6  7  8    9  10. Lesson 2    11.  12.    13.    14.  15.  16.  17. Lesson 3 (possibly 4 also)      28. Lesson 4  29.  30.    31.  32. Lesson 5 | 1. Watch video from the nurse. Discuss her role and the skills needed to do her job. Talk about the task set: to create a senses test. What skills might we show to complete this task- link to skills passports. 2. Critical thinking: Children to recap what they know about basic body parts. Children draw around each other and see how much they can label (you can provide the labels to stick on or children can draw)(labels- head, ears, neck, eyes, mouth, arms, elbow, hands, feet, fingers, chest, stomach/tummy, knees, legs, toes) (5 mins) 3. Watch parts of the body video (BBC) <https://www.bbc.co.uk/bitesize/topics/z9yycdm/articles/zqhbr82> also in PP. 4. Ask children to now go back to their drawing and see if they need to change or add to their drawing. 5. Discuss what do we needs each body part for: point to different parts and children discuss the function.   Curious and Create:   1. Introduce the 5 senses: taste, smell, touch, sight, hearing. Link to COVID: losing ability to smell and taste. 2. Tell children that this session we will focus on taste: Introduce terms sweet and bitter and show picture of the tongue to talk about taste receptors. 3. Children will be tasting a range of foods that they will categorise into bitter, sweet, sour. (See recording sheet) Explain to the children that taste also relies on the ability to smell. Ask children to hold their nose and close their eyes, now give them another food to taste- can they identify what it is? No- as smell also helps taste. 4. Plenary: sing a body song such as Hokey Cokey, head shoulders, knees and toes, one finger one thumb. You can adapt the songs to include different body parts- children can make these up- they like that! 5. Recap the 5 senses and recap yesterday’s lesson with body parts and the sense ‘taste’. What did we find out? (See PP) 6. Today’s lesson we will be focusing on smell and sight. Last session we learnt that smell is important for taste. Why is it important we can smell? What animals use smell? 7. Present children with jars of different smells (put muslin on the top) well known items e.g. onion, **chocolate, coffee, orange zest, mint, coconut, pepper, garlic (Examples)**. If children are struggling present them with the smell cards (pics of all the smells) can they guess now? 8. Children rank the smells from strongest to weakest smell.   Ask the question: if you were trying to see if someone had lost their sense of smell which smell would you try first? Do you know of anything that would smell stronger? If they could smell this what would you do next?  Children to stick their smell cards in order from strongest to weakest smell as they will need this to create their own senses test.   1. The next sense we will be looking at is **sight**. Show children a sight chart that the nurse would use- look at it and discuss why this is useful, why there are big letters and small letters. How might this be adapted for children who do not know their letters e.g. pictures. 2. Children have a go with a partner at covering one eye and trying to read all the letters. Adjust the distance and try again. 3. If someone was stood fairly close to the letters and still could not read them- what might this suggest? How might you adapt this test for young children? Use big and small pictures.   EXT- children could explore sight through magnifying glasses, binoculars, kaleidoscopes, cameras, telescopes, periscopes and torches (provided in a curiosity corner)  EXT- use science goggles and masking tape parts so children can sense what tunnel vision feels like- how tricky it is to find sense of space.   1. Lesson 3: Recap learning so far including the senses taste, smell and sight. Play body parts bingo. 2. Today’s session will focus on the sense hearing and touch. 3. Tell children that they will have to listen carefully this session in order to spot different sounds. Lets practice: Play some clips from the PP, can children guess what the sound is? 4. Children take a recording sheet and a clip board and will go on a listening walk around the school/house and grounds. Jot down all the things they can hear. 5. On returning to the classroom, children will talk about some of the things they heard, teacher scribe on the board. What do you think was the loudest thing we heard? Quietest? 6. On tables children have a range of sounds, can they work in pairs to order from the quietest to the loudest? Discussing their reasons with their partner.   EXT provide sound amplifiers, sounds pitches or different shaped cones (ears) for children to put over their ears to see how the shape of the ears changes how they hear.   1. Ask children how they might test if someone can hear something and how good their hearing is? Take children’s suggestions. 2. We will now explore the sense of touch. Provide children with feely bags/boxes, children feel inside and try to guess the object e,g **teddy (soft), toy car (metal) cup (plastic), slime/playdough (gooey).** (Teacher demo-sharp) 3. Now show children a range of textures: **bumpy, abrasive, soft, hard, fury**. Can children feel them and link to learning in year 1 on materials. 4. We can also feel temperature: hot, cold and warm. Talk about how our body feels when we are cold, warm and hot. 5. What could we do to test if someone can feel something? (Texture wall) 6. Lesson 4: Recap all 5 senses and children to recall what each one is used for. What would happen if we lost one of these senses?   Play ‘what can you hear?’ bingo. Play different sounds and children cross them off if they can hear it and have it on their board.   1. Innovation stage   Consider and Connect: Remind children what the nurse has set them to do. Make a senses test.   1. Children will think about each of the 5 senses, on their sheet and using the learning they have already done they will think about what each test looks like. 2. **Taste**- remind children on the taste test. Children to write down 3-5 tastes that they would use from strongest to weakest. (This can be done in small groups with children sharing ideas so less resourcing, or you could provide a list for children to choose from). 3. **Smell**- remind children of the smell test. Children to write down 3-5 smells that they would use from strongest to weakest. (This can be done in small groups with children sharing ideas so less resourcing, or you could provide a list for children to choose from). 4. **Sight-** remind children of the sight chart, ask children to choose 3-5 pictures they think children would know to create their sight test (provide some examples) 5. **Hearing-** remind children of things they were listening to. Ask children to write down 3-5 sounds that they would use from loudest to quietest. (This can be done in small groups with children sharing ideas so less resourcing, or you could provide a list for children to choose from). 6. **Touch**- remind children of things we touch. Children think of 3-5 materials (can include ice) which would test if someone could feel. 7. Children share their ideas with another group.   Plenary- Body parts song.  (You will need to check each group for resourcing before lesson 5)   1. Lesson 5: Recap of learning so far (quiz) 2. Children share some of their ideas. 3. In their groups children to create their sense test. Start with taste: children create their tasting samples. 4. Smell: children create their smell jars 5. Sight: children create their sight chart (using pre-printed pictures large and small) 6. Hearing: children collect the items for their hearing test 7. Touch: Children collect the materials for their feely wall.   Children will test out their senses test with another group or other year group (if in the same bubble). They could test on staff (again bubble dependent). Photograph and film each group to capture their learning. | | | Presentation  Screen Clipping  Screen Clipping  Screen Clipping  Screen Clipping  Screen Clipping  A selection of foods.  Blindfold (optional)  Screen Clipping  Screen Clipping  Jars or bags with different smells in.  Worksheet provided  Smell jars  Smell cards  Screen Clipping  Screen Clipping  Sight charts  Goggles and tape (optional)    Screen Clipping  Body parts bingo  Sound clips on PP  Recording sheet  Screen Clipping  Screen Clipping  Objects inside feely bags/box (see bold)  Textures for feely wall (see bold)  Screen Clipping  Listening bingo  Recording sheet  Screen Clipping  All materials in the children’s planning sheets.  Tastes  Smells  Jars or small pots e.g. yoghurt  Materials  Instruments (sound)  Screen Clipping |
| Screen ClippingBritish Science Week competition:  Poster competition: Your poster needs to be on ‘Innovating the future’. Inspiration can come from anywhere. These lessons or their own innovation. Entries need to be submitted by 30th April via the British Science Week online entry form. [Poster competition - British Science Week](https://www.britishscienceweek.org/plan-your-activities/poster-competition/)  What are they looking for?  -Creativity in approach- creative interpretation of the theme.  -Content- clear, accurate and informative about a STEM topic.  -Effective communication- presented and communicated in an engaging way  There will be one winner in each category. 2 runners up will go on Facebook vote to win. There are prizes to be won. (See website for full rules)  Poem: come up with an acrostic poem for INNOVATION, what comes to mind when you hear it? You could turn your poem into a jingle share on The British Association Twitter-@ScienceWeekUk use hashtag #BSW21.  Crest Award- this encourages young people to think and behave like scientists and engineers. Children complete 8 activities to achieve a Star or SuperStar Award which includes a certificate and badge. Library.crestawards.org | | British Science Week: Innovating the future ‘I’m a scientist’ activity.  Head to imascientist.org.uk for further details.  Sign up. Click ‘Meet the Scientists’ in the menu bar and read through some of the scientists’ profiles. Prepare 2-3 questions for the scientist in your chat. Sign on at the time for that scientist (see website), click chat at the top of the page to join the session. Ask your questions and chat to a scientist- they’re excited to answer your questions!  Sciencelive.net  Screen ClippingInspiringthefuture.org- helpful ideas for using volunteers. | Plymouth City Council/ Plymouth Science Hub:  Send us your work, photos, videos, research on scientists who have made life changing innovations.  Prizes to be won.   1. Find out about a scientist who has innovated something- make a gallery in your school. Send us a copy which we can display on our website Plymouth Science. 2. Send us your videos/posters as we are running our own competition where prizes can be won. 3. You could feature on our website or on the Great Science Share website.   All entries to be sent to [plymouthscienceteam@gmail.com](mailto:plymouthscienceteam@gmail.com)  Visit our website for all resources under ‘Careers Related Learning’ Plymouthsciencehub.co.uk  You can sign up for FREE, all resources are FREE.  Plymouth City Council - YouTube | |



