

### KS3 Biology – Body parts and Senses

In this module students will be learn about different body parts and their functions and the different senses and their functions. They will learn about the specific functions of the human body using their skills of discussion, questioning and observation. Students will identify the senses and what the senses enable humans to do i.e. taste, smell, see, feel and hear.

Students will 'work scientifically' to achieve these goals, learning the key features of scientific enquiry; observing over time, pattern seeking, identifying, classifying, investigating (fair tests) and researching.

#### **RRS Articles:**

This unit of work is linked to Articles of the UN Convention on the Rights of the Child.

Article 13 (freedom of expression)

Article 24 (health and health services)

Article 29 (goals of education)

	<u>Progression step 5-6</u>	<u>Progression step 7-8</u>	<u>Step L1</u>	<u>Step L2</u>
<b><u>Subject specific knowledge</u></b>	<p>Knows the names of main body parts e.g. head, leg (can use signs/symbols) but may need support.</p> <p>Begins to understand which senses link to which organs.</p>	<p>Knows to use appropriate senses when asked to smell or taste.</p> <p>Begins to understand the link between the sense and correct part of the body.</p> <p>Knows what each sense organ is for.</p>	<p>Knows and names the 5 senses</p> <p>Knows all main external body parts.</p> <ul style="list-style-type: none"> <li>•Knows main functions of external body parts.</li> <li>•Groups and classifies body parts (using criteria given by teacher)</li> </ul>	<p>Knows and names name the five senses and related organs.</p> <p>Knows how to locate less easily defined body parts e.g. chest, elbow, knee, cheek.</p>

			Knows and is able to name all main external body parts e.g. hands, fingers, head.	
<b><u>Subject specific skills</u></b>	<p>Shows interest in wide range of foods, textures, sounds</p> <p>Begins to initiate an interaction e.g. reaches out for object - this example covers all senses.</p> <p>Begins to cooperate with turn taking and sharing e.g. gives food samples to others.</p> <p>Shows anticipation e.g. covers ears before a loud noise is made.</p>	<p>Uses everyday words or signs to describe sensory experiences</p> <p>Can label a human body map using a choice of symbols.</p> <p>Is able to link a feature on the face to a sense i.e. nose - smell.</p> <p>Is able to name some of the major organs i.e. heart, lung.</p> <p>Can identify loud and quiet sounds.</p>	<p>Can label a human body map- main external features.</p> <p>Is able to link some features to a sense.</p> <p>Is able to name major organs.</p> <p>Can identify and name different sounds i.e. loud, quiet.</p> <p>Can identify dark and light and how it happens i.e. sun - light, lights off dark</p>	<p>Can label a human body map and explain some of the functions of body parts.</p> <p>Is able to link features to a sense.</p> <p>Is able to name major organs and locate them on the body.</p> <p>Can name and describe different sounds.</p> <p>Can identify and describe tastes.</p> <p>Can identify dark and light and describe how it happens.</p> <p>Can discuss what they think is inside the body.</p> <p>Can explain that they find out about things by looking, hearing, touching, smelling and tasting.</p>

	<p>Participates actively e.g. joins in making noises</p> <p>Can listen for a sound.</p> <p>Can move a specified body part once modelled.</p> <p>Can show like/dislike for a taste using a choice of 2 symbols salty, sweet, and sour.</p>	<p>Is able to point to a main feature of the body.</p> <p>Can identify an organ from a choice of two answers (picture/symbol).</p> <p>Can listen for and locate a sound.</p> <p>Can move a specified body part when asked.</p> <p>Can show preference for a taste using a choice of 2 symbols salty, sweet, and sour</p>		<p>Is able to name the major organs, some of the functions and locate them on the body.</p>
<p><b><u>Suggested Activities</u></b></p>	<p>Parts of the Body</p> <ul style="list-style-type: none"> <li>• What parts do they know already? Either ask pupils to point and name parts of their body or teacher points to parts on his/her body and asks pupils to name them.</li> <li>• Play "Simon Says"</li> <li>• Sing "Head, Shoulders, Knees &amp; Toes".</li> <li>• Give body outlines to draw on and name.</li> <li>• Discuss what might be inside the body. Ask children to draw what they think is inside their body.</li> <li>• Use PE to emphasise parts of the body.</li> </ul>			

- Look at how well they can move particular body parts e.g. move one finger at a time, wiggle their ears.
- Make footprints and handprints.
- Use a jack-in-the-box and talk about parts you can't see.
- Make jigsaws from pictures of people cut up.
- Draw monsters with e.g. 3 legs, 6 arms, 5 eyes etc. – this could be teacher directed or one child to another.

#### Senses

- Use 'feely' bags
- Think about how they know the teacher is in the classroom. If they were blindfolded, how would they know?
- Play sound games – identify sounds from a tape; make a sound map round school.
- What senses do they use to cross the road, ride a bike, find something under the bed etc?
- What sounds indicate pleasure, danger, warning?
- Blindfolded children try to walk in a straight line, recognise classmates by touch (SAFETY SYMBOL). What is it like not to be able to see?
- Make mazes on card using rough and smooth sandpaper. Sandpaper tells you what to do e.g. rough=turn, smooth=straight on. Find way through maze by feel.
- Identify foods by smell
- Taste potato and apple when holding nose – emphasis link between smell and taste.
- Identify crisps by taste – use colour of package to record results.
- Sort foods by taste – salty, sweet, sour, bitter.
- Try to identify different things when touched against different parts of the body – child is blindfolded.
- Discuss which organ goes with which sense, and match appropriate pairs of pictures.

#### POSSIBLE INVESTIGATIONS

- Whose hand holds the most? Discussion to decide how to do this.
- Devise own eye test. Which colours show up best? Can they see better with one eye.

#### Sight:

- Use objects with high contrast and/or reflective surfaces and the light-room to focus and use vision purposefully.
- Use objects with high contrast and/or reflective surfaces to encourage tracking.

- Encourage pupils to focus on e.g. human faces – pair the faces with a motivating outcome such as a smile, music, food.
- Use coloured spectacles, acetate sheets, filters, torches to look at objects.
- Experience different types and intensities of light e.g. candle, torch, UV, strip light, dimmer switch.
- Experience darkness by turning off light in dark room, building tunnel under table, blindfold.
- Use different mirrors and spoons to look at objects and faces.
- Blindfold pupils to touch and guess an object; write name; touch other pupils and play other “games” as appropriate e.g. pin the tail on the donkey.
- Use a “body bag” to experience the one-way vision effect. This is a large bag made of a material that allows pupils to see but not to be seen.

#### Resources

- Shiny objects
- Boldly coloured objects.
- Coloured spectacles
- Acetate sheets
- Filters – coloured.
- Torches
- Light sources
- Blindfolds.
- Tables, sheets etc to make tunnel
- Body bag.

#### Hearing:

- Listen to a variety of sounds e.g. music, recorded sound effects, bodily noises, instruments, toys.
- Experience silence (near silence) to show contrast between silence and noise.
- Experience contrast between different types of sound e.g. drone; shout; sharp sounds; pleasant; unpleasant.
- Pupils create voluntary or involuntary sounds using their body or other objects.

- Use a selection of musical instruments or other noisy objects – have 2 sets of these, one which is hidden. Teacher makes a noise on one instrument and pupils select same one from the other set.
- Play sound lotto using a tape.
- Carry out activities e.g. turning on tap; opening the door; someone moving with a bell. Pupils locate these noises when blindfolded.
- Tape record pupils' vocalisations and playback.

#### Resources:

- Tape of sound effects
- Noisy toys
- Musical instruments
- Taped/live music
- Objects to make sounds with – use everyday objects.
- Sound lotto and tape.
- Tape and tape recorder.

#### Taste and Smell:

- Experience a variety of smells e.g. food, chocolate, peppermints, orange, massage oils, perfume, toothpaste, contrasting smells (sweet/sour such as honey/vinegar).
- Make choices with smells using adult help e.g. select oil for massage, select food for snack.
- Experience different foods with distinctive smells and tastes, i.e. orange, chips, crisps, popcorn.
- Visit places with distinctive smells e.g. zoo, farm, swimming pool.
- Experience cooking smells to distinguish between 'good' and 'bad' food i.e. perfectly cooked food versus burnt food.
- Develop own preferences – make own sandwich – select filling, types of bread.
- Identify through blind tasting e.g. crisps, fruit, vegetable.
- Discriminate between similar foods e.g. different types of crisps, biscuits.

	<p>Resources:</p> <ul style="list-style-type: none"> <li>• Selection of foods and other substances with range of tastes</li> <li>• Selection of foods to cook/burn e.g. bread to make toast.</li> <li>• Bread “selection”</li> <li>• Fillings for sandwiches</li> <li>• Range of crisps or biscuits</li> <li>• Variety of substances to smell e.g. coffee, herbs, chocolate, toothpaste, massage oils.</li> </ul> <p>Possible Investigations</p> <ul style="list-style-type: none"> <li>• A grouping and sorting investigation e.g. objects that are hot or cold; loud and quiet sounds.</li> <li>• Find out which materials stop sound – by covering the ears with different materials.</li> <li>• Identify other pupils from recorded or live voices and use photographs to indicate who it is.</li> </ul>
<p><b><u>Personal development</u></b></p>	<p><b><u>Problem solving</u></b> Investigations and matching exercises</p> <p><b><u>Communication skills</u></b> Working as pairs in investigations, asking and answering questions</p> <p><b><u>Self-belief</u></b> Learning new skills, practising them and demonstrating them.</p> <p><b><u>Self-management</u></b> Working with new equipment</p> <p><b><u>Teamwork</u></b> Working as groups to solve problems or find out new information</p>
<p><b><u>Online resources</u></b></p> <p><a href="https://www.science-sparks.com/learn-about-your-body/">https://www.science-sparks.com/learn-about-your-body/</a>  <a href="https://www.pinterest.com/primarythemepk/human-body-activities-for-kids/">https://www.pinterest.com/primarythemepk/human-body-activities-for-kids/</a>  <a href="https://www.icanteachmychild.com/human-body-activities-for-kids/">https://www.icanteachmychild.com/human-body-activities-for-kids/</a></p>	

<https://www.weareteachers.com/anatomy-activities/>

[https://www.abcya.com/games/five\\_senses](https://www.abcya.com/games/five_senses)

<https://playtolearnpreschool.us/5-senses-activities/>

### **Evidencing Work**

All work / evidence sheets need to be printed off (where appropriate levelled in accordance with the rubric), students need to self-assess and work needs to be put in student folders.

Practical experiments need evidencing through photographs/witness statements.