

Sing and Learn Science: Body Movements and Joints

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Instructional Objectives:

The students will be able to

- recognize the different movements of the joints.
- recall the names of the different joints.
- differentiate between the different joints.
- locate the different joints.

Concepts to be taught:

1. Rotating, turning, bending and swinging as different movements to be performed.
2. Movements are possible due to joints.
3. Specific movements are possible at specific joints.

Set Induction:

1. Allow students to sing the following song along with the teacher to refresh their prior knowledge. This would generate curiosity in their minds and prepare them cognitively and affectively.

*I walk with my legs,
I run with my legs,
I dance with my feet,
Look at me, I can dance, dance all day long.
I eat with my hands,
I write with my hands,
I draw with my hands,
Look at me, I can scribble, scribble all day long.*

Development:

1. Allow students to sing the song on *rotation, turning and bending*.

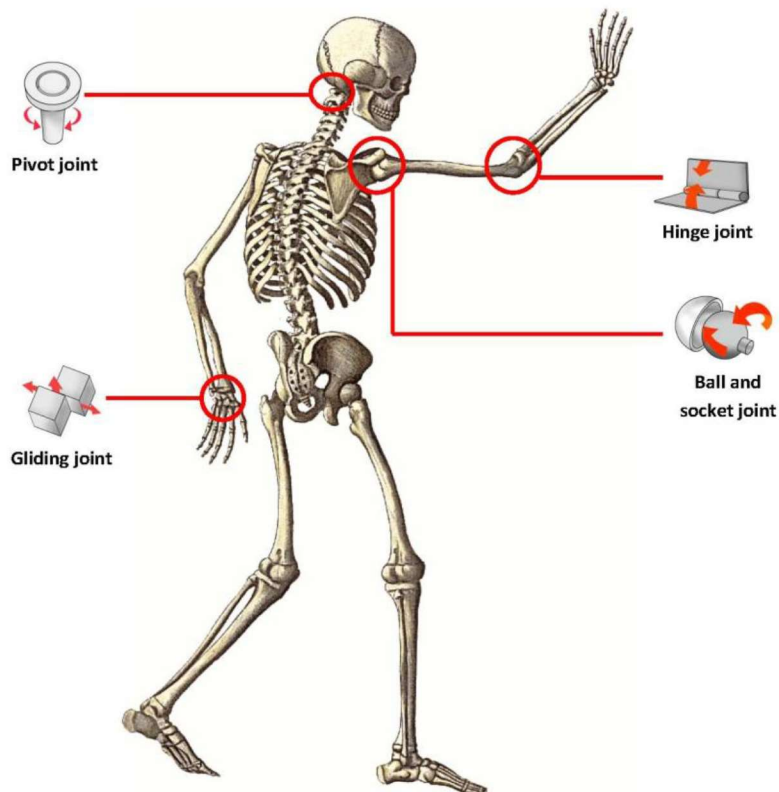
*My arms go round and round
To throw a ball at Sam,
My neck goes all around
To smile at Dan and Pam.
My elbows go up and down
To lift a book and a pen,
My wrist goes round
To write from one to ten.
My hip turns swish, swish
To let me dance very often,
My legs go ding dong
To walk and run n've fun.
My knee goes up and down
To kneel and peep in the pen,
My ankles go round
To help me go tip toe at ten!!!!!!*

2. Ensure that the students do the following to reinforce the concepts learnt through this song.
 - *Rotate* their neck and arms
 - *Bend* their elbows and knees
 - *Twist* their hips
 - *Swing* their legs

3. Give this worksheet and allow them to fill in the columns.

	Rotate	Bend	Turn	Swing
Neck				
Arm				
Elbow				
Wrist				
Hip				
Knee				
Ankle				

4. Make them observe a chart showing types of joints.



5. Allow them to sing the song on joints.

Joints, joints in my body

At different points, points in my body.

Pivot at my neck to turn my head

Hinge at my elbow to bend my hand.

Ball and socket at my shoulder to rotate my hand

Gliding at my wrists to turn my hands.

Joints, joints in my body

At different points, points in my body.

Any more joints in my body?

One at the hip, 'nother at knees.

Down at the ankles

Fingers n toes and parts of the body.

6. Now, allow them to fill up this worksheet.

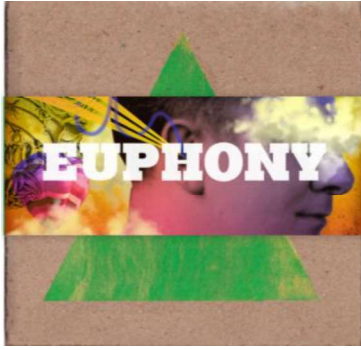
	Hinge joint	Pivot joint	Ball and socket joint	Gliding joint
Neck				
Shoulder				
Elbow				
Wrist				
Hip				
Knee				
Ankle				

7. Ask students to label this diagram.



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Words Section



Euphony (noun)

Meaning

- the quality of being pleasing to the ear for possessing a harmonious succession of words; the tendency to make phonetic change for ease of pronunciation (oxforddictionaries.com)

Origin (and additional information) ~ First known use: 1606; from French *euphonie*, via Greek *euphonia* or *euphonos* meaning *well-sounding*, from *eu-* 'good' + *phone* 'sound, voice,' related to *phanai* meaning *speak*. This is also the explanation behind the concept of the musical instrument first made in 1865 called the *euphonium*.

Phonaesthetics is the study of inherent pleasantness or beauty (*euphony*) or unpleasantness (*cacophony*) of the sound of certain words and sentences. Poetry is considered euphonic, as is well-crafted literary prose. Important phonaesthetic devices of poetry are rhyme, assonance and alliteration. Again, closely related to *euphony* and *cacophony* is the concept of *consonance* and *dissonance*.

Euphony is achieved through the use of vowel sounds in words of generally serene imagery. Vowel sounds, which are more easily pronounced than consonants, are more euphonic; the longer vowels are the most melodious. Liquid and nasal consonants and the semivowel sounds (*l, m, n, r, y, w*) are also considered to be euphonic. An example may be seen in *The Lotos-Eaters* by Alfred, Lord Tennyson: "*The mild-eyed melancholy Lotos-eaters came.*"

Usage ~

- i) The majestic euphony of Milton's poetry enthralled me.
- ii) The poet put euphony before mere factuality, and that added the striking quality to his poetry.

Derivatives ~ *eu·phon·ic*, adjective; *eu·phon·i·cal·ly*, adverb; *euphonize*, verb; *eu·pho·nies*, plural form