

TAPS Plan for Focused Assessment of Science



Topic: Animals including humans	Year 6	Title: Heart rate poses
Working Scientifically	Concept Context	
Do: Use test result to make predictions to set up further comparative and fair tests	Describe the functions of the heart, blood vessels and blood Recognise the impact of exercise on the way their bodies function	
Assessment Focus		
 Can children carry out a scientific enquiry to answer their question? 		
Activity Today we are going to be cardiovascular scientists. Previous lesson: measuring pulse rate at rest and after exercise (measuring and recording focus). This lesson: Discuss previous findings about pulse rate: can be hard to measure, but generally found that pulse rate increases after exercise. Recap why: blood carries oxygen around the body, the muscles need more oxygen during exercise, so your heart works harder to supply more oxygen. But what if your body is still e.g. headstand, raised arms, balance, yoga pose, plank? Focus individual recording on predictions and explanations. Discuss with the children how to plan and carry out a test into a stationary exercise.		

Consider how long the pose should last, comparison with resting pulse rate, whether one child or several children should be tested, how to carry out the tests safely.

Ask the children to carry out the test and record results as in a group. Discuss findings.

Adapting the activity

Support: Provide a table for children to record their findings: Pulse before, Pulse after, Difference. **Extension:** Children carry out further investigation to test new predictions.

Other ideas: Do you think a giraffe has a smaller or greater pulse than you? Find pulse rates of other animals on websites. Or link to healthy living.

Questions to support discussion

- After our last pulse rate investigations, what do you predict this time?
- What is the difference between resting rate and after the stationary exercise?
- Can you see any visible changes caused by blood circulation when a person does a head stand etc?
- Why do you think the heart beats faster when you are upside down?
- Do your results support or contrast with your prediction?

Assessment Indicators

Not yet met: Children can explain that where the pulse rate goes up, this indicates that the heart is beating faster. They are aware that different children may have different resting pulse rates.

Meeting: Children can use their data to make further predictions linking how hard the heart has to work with the heart rate, e.g. When you are upside down the distance that the blood needs to be pumped upwards is greater, so your heart works harder and beats faster. Therefore, I predict that our pulse rates would rise if we raised our arms as the blood would also be pumped upwards.

Possible ways of going further: Can explain that it is important to measure the changing pulse rates of several children to get a good picture of the overall pattern as individuals might vary. Can use their tables or graphs to make predictions about different situations.



