**Multi Touch Activity – Balls down the walls – Teacher’s notes**

This activity is designed to be used in the week(s) following your visit. It has been devised to generate recall of the trip whilst also promoting higher order thinking. To this end it can take a few minutes to deliver at the start or end of the school day but could easily be expanded to be used as an extended task or project. Please do provide feedback to tell us how you used it and its level of impact. You can email us at socschools@scienceoxford.com.

**Summary:**

**Slide 1** introduces the activity, which involves looking at some example ball runs, predicting if they will work and providing ideas on how to improve them. During the activity, encourage your class to discuss ideas with their partners, predict whether it will work and to give reasons why. Prompt them to also think about simple ways to make each of the ball runs work.

Each of the ball runs shown will not work, each for a different reason. The slide orientation is the same for **Slides 2-4,** with multiple clicks per slide to transition through a series of images and videos. First a photo of the ball run is shown, then a video of it not working, followed by a video of it working after one simple modification. Videos are integrated so they will play as you click through the presentation. Please note, if you wish to increase the video quality/resolution, hover your mouse over the video, click on the ‘Settings’ icon and choose ‘Quality’ to change to a more appropriate resolution. The ball run problems are as follows:

* Ball run 1 (slide 2) 🡪 This won’t work, because the bottom section is closed and the ball may not come out the bottom
* Ball run 2 (slide 3) 🡪 This won’t work, because the first clear tube is too steep
* Ball run 3 (slide 4) 🡪 This won’t work, because the clear tubes are too flat and long so the ball won’t have enough momentum to travel along them

**Slide 5** shows two different ball types, and asks the children which one they think will go through a ball run the fastest. Here, encourage your children to consider the properties of the balls (ie materials, weight, density etc), and to consider what else they would need to know before they could answer this question – ie. Would they want to feel them? What shape is the ball run going to be?) The ball run used for the testing is the same as the working ball run shown on Slide 3. For your reference, the orange ball is a light and hollow plastic ball, the black ball is a heavier, bouncy squash ball.