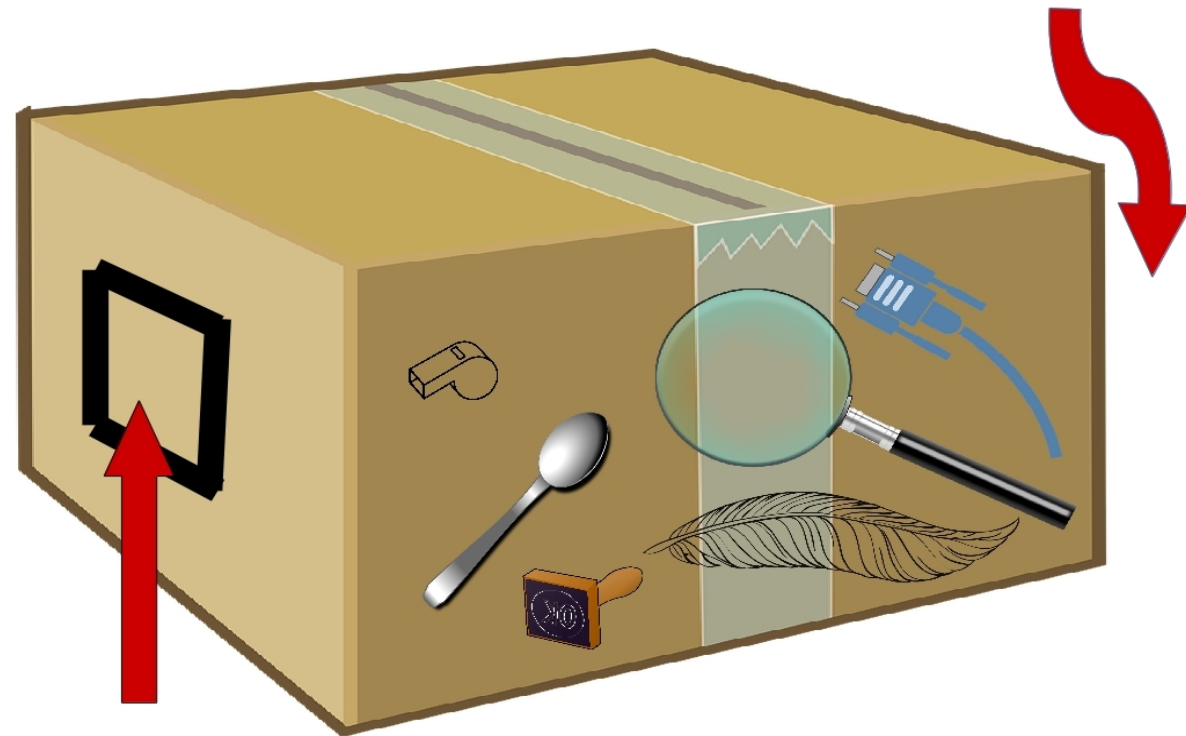


Exploring Familiar Artefacts in a Black Box



Try to guess what items are inside the box by placing your hands through the marked area [marked with arrow]. Answer the following questions: (A) How many objects are inside? (B) What are these objects and what could they be used for?

चिन्हांकित केलेल्या भागातून आपले हात बॉक्समध्ये ठेवून, आत मध्ये कोणत्या वस्तू आहेत याचा अंदाज लावण्याचा प्रयत्न करा व पुढील प्रश्नांची उत्तरे द्या: (A) बॉक्समध्ये किती वस्तू आहेत? (B) या वस्तू कोणत्या आहेत? व त्या कशासाठी वापरल्या जाऊ शकतात?

बाण की ओर से अपने हात बॉक्स के अंदर रखें और अंदर के चीजों का अनुमान लगाने का प्रयास करें, व निम्नलिखित प्रश्नों का उत्तर दें: (A) बॉक्स के अंदर कितनी चीजें हैं? (B) वह क्या हैं? और इन चीजों का उपयोग किस लिए किया जा सकता है?

Above images are only representative of familiar artefacts. You can replace it with any easily available artefacts.
Image Source: Pixabay (Public Domain/ Creative Commons CC0)

Background

Often we overlook everyday objects that we use and miss the conscious design decisions involved in the making of that artefact (Crismond, 2001). Such artefacts are probably our most obvious everyday encounter with technology and thus studying the nature of such artefacts can be a natural starting point for teaching and learning about technology (Frederik, Sonneveld & de Vries, 2011). Research in the area of biology also suggests that objects can be identified through tactile exploration fast and accurately (Klatzky et al., 1985). The objective of the "blackbox" activity is to build observation skills by using tactile perception to describe and distinguish objects and to sensitise students about the close link between "form and function". This activity provides students an opportunity to use a variety of communication and handling strategies. This activity can be easily modified to be suitable for different age groups. Based on age group, you can ask students to sort artefacts by shape, or according to uses and material. Students may even be asked to come up with their own logic for developing grouping categories (TE: STEM Curriculum for K-12, n.d). Alternatively, students can describe objects in the blackbox and then pick out an identical object that may be presented to them separately on the table (Gutierrez, n.d).

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