

STEM Challenge Cards

These challenge cards could be used in several ways and obviously learners could work in teams or individually.

- a) Provide learners with a range of materials and ask them to choose a challenge to complete.
- b) Provide learners with a range of materials and focus everyone on one challenge so that teaching points can be made and discussions about solving problems and improving designs have enhanced relevance.
- c) Provide learners with a limited number and/or amount of materials and allow them to choose a challenge.
- d) Provide learners with a limited number and/or amount of materials and supply them with a specific challenge.
- e) As any of above but cut out and fold resource names below and place them in a container to allow learners to pick a set number of random resources to work with.

List of possible resources which could be supplied for the completion of these tasks (all of which could be limited e.g. one sheet of newspaper):

- newspaper
- string
- masking tape/sticky tape
- duct tape
- plastic bags
- thin card
- corrugated card
- paper
- lollipop sticks
- match sticks
- elastic bands
- straws
- paper cup
- pipe cleaners
- spilt pins

Eggs, pennies and marbles are also needed for one challenge each and you may need to make scissors and glue available too unless working without them is an intentional restriction.

Providing a time limit will really focus the learners engaged in the task and on some of the cards there is a suggestion for how to make the challenge into a competition. This may not always be appropriate because working to a time limit can be stressful enough and there are likely to be problems to solve!