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CLASSROOM LAYOUTS AND ORGANISATION

A Guide for Teachers, Teacher Trainers
and Policy Makers



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INTRODUCTION:

This resource booklet is designed mainly to be of interest to teachers and teacher trainers. However, a concluding section may also be of interest to policy makers as it raises issues about furniture procurement and what might be the best kind of school furniture to equip schools with in support of modern teaching methods.

Its purpose is to achieve the following:

- to raise awareness of the different ways in which a classroom can be arranged;
- to increase understanding of what different layouts might offer, including strengths and weaknesses, and the purposes to which they might be suited;
- to help teachers to know what to include and what to avoid in an effective classroom layout;
- to develop the confidence and skills of teachers to experiment with different classroom layouts and use these arrangements more effectively in support of their teaching.
- To challenge policy makers on classroom furniture design issues.

The text which immediately follows is a commentary on sixteen different classroom layouts. The sixteen layouts can be found as part of the **Annex** at the end of this booklet. The layouts themselves can be used as photocopy masters for training purposes, or be copied onto film as Overhead Projector Transparencies. They can also be projected directly onto a screen, if you have an electronic copy of this document and are lucky enough to have access to a digital projector.

If used as the basis of teacher training, two **alternative** ways of using the layouts are suggested:



Option 1: a lecture presentation

Present the sixteen classroom layouts on an overhead projector, one at a time. Explain and discuss each classroom layout with reference to the Guidance Notes in the next main section: “Comments on the Layouts”.

The typical classroom layout seen in so many Turkish Schools



But does it need to be this way and what are the educational benefits of making changes?

This booklet will provide some answers!



Option 2: a group activity, followed by a plenary session

This is an activity that would work well in a training workshop. Give each group a set of the 16 classroom layouts (paper copies). Ask the group(s) to study each layout and discuss its main features.

The instructor should not say anything about the classroom layouts, other than to point out that in every arrangement there are:

- 32 pupils
- 32 desks
- 1 teacher
- 1 teachers desk
- 1 table
- 2 sets of cupboards
- 1 wall blackboard

(In Layouts 15 and 16 there is also an additional portable blackboard).

The pictures should speak for themselves. Participants should base their responses on what they notice in the layouts and their knowledge and experience.

Questions they might ask are:

- What are the main features of this layout?
- What are the advantages of this layout?
- What are the disadvantages of this layout?
- What kind of teaching would it be suitable for?
- What kind of teaching would it not be suitable for?
- Would this layout lend itself to cooperative learning? If so, in what way?
- Is there anything unusual or surprising about this layout?
- How easy or difficult is it for students to enter the classroom and reach their places?
- How easy or difficult is it for students and the teacher to move around the classroom? Can, for example, the teacher hand out material easily?



- Are there any blind spots or congestion points? If so, where?
- Do you have any other observations on the layout (e.g. position of cupboards)?
- Would you like to teach in this classroom? Yes or No? Why?

This set of questions is available in worksheet form (which is also suitable for projection onto a screen), in the **Annex** at the end of the booklet.

Groups can take it in turn to report back their observations, during a plenary session.

If wished, the set of questions can be displayed or projected onto a screen to support this feedback.

If all 16 layouts are to be analysed in detail, to avoid a long group discussion and plenary session, it may be wished to arrange a session as follows:

Stage 1: Group Discussions of Layouts 1 to 6

Stage 2: Plenary Discussion of Layouts 1 to 6

Stage 3: Group Discussions of Layouts 7 to 11

Stage 4: Plenary Discussion of Layouts 7 to 11

Stage 5: Group Discussions of Layouts 12 to 16

Stage 6: Plenary Discussion of Layouts 12 to 16

In the plenary session(s) the facilitator can refer to the following Guidance Notes, to bring out any points not remarked upon by the groups.

COMMENTS ON THE LAYOUTS:

Classroom Layout 1:

- This is a “traditional” layout, well suited for formal teaching.
- All students are facing the blackboard/front.
- The layout is not at all suited to cooperative learning and discussions.
- The layout is not suited to sharing of materials.
- The layout is totally unsuitable for group work.
- The layout is very unsuitable for practical work.



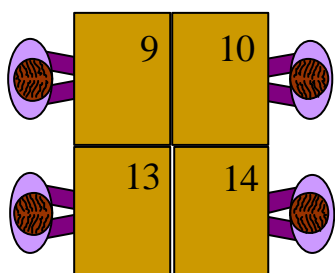
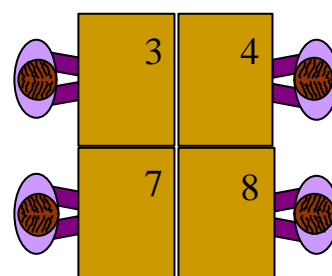
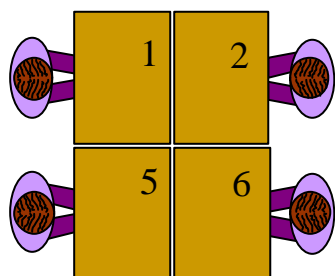
- The layout is well suited for conducting a formal examination. Pupils are too far away from each other to copy.
- Conditions for “Traffic flow” are adequate, but limited.
- The layout does not encourage movement, including teacher movement.
- The teacher’s desk is in a dominant, “authority figure” position.
- Pupils 1-4 are likely to feel much more involved than pupils 28-32.
- The greater the pupil distance from the front of the class, the greater the potential educational disadvantage.
- The distance from the teacher to pupil 28 is very great.
- If the teacher moves from pupil 32 to pupil 1, the teacher has a large distance to cover and the path is not direct.
- How will the cupboards be used in this arrangement? Are the cupboards used by the students, by the teacher, or by both? If the cupboards are only used very occasionally, their location is not an issue. If they are used frequently by the teacher, their location is inconvenient. If they are used frequently by the students, access is poor for students in columns 2, 3 and 4.
- The layout is uninteresting and not stimulating.
- The layout is difficult to use flexibly.
- The layout has scope for simple transformation into another layout, especially layout 2. (Pupils in column 2 would only need to move their desks a short distance to the left; and pupils in column 3 would only need to move their desks a short distance to the right).

Classroom Layout 2:

The only difference between Classroom Layout 1 and Classroom Layout 2 is that, in Layout 2, pupil columns 1 and 3 and columns 3 and 4 have been moved next to each other. This results in the following characteristics:

- A fairly “traditional” layout well suited for formal teaching.
- All students are facing the blackboard/front.
- The layout is very well suited to pair work, but not well suited to other forms of cooperative learning and discussions.
- The layout is very well suited to sharing of materials: one-between-two.
- The layout is totally unsuitable for group work.
- The layout is very unsuitable for practical work.

- The layout is not well suited for conducting a formal examination. Pupils in pairs can copy from each other.
- “Traffic flow” conditions are adequate, but limited.
- The layout does not encourage movement of the students, but the wide central aisle - which was not a feature of Layout 1 - creates (and encourages) rather more freedom of movement for the teacher, as compared to Classroom Layout 1.
- The teacher’s desk is in a dominant, “authority figure” position.
- Pupils 1-4 are likely to feel much more involved than pupils 28-32.
- The greater the pupil distance from the front of the class, the greater the potential educational disadvantage.
- The distance from the teacher to pupil 28 is very great.
- If teacher moves from pupil 32 to pupil 1, the teacher has a large distance to cover and the path is not direct.
- How will the cupboards be used in this arrangement? Are the cupboards used by the students, by the teacher, or by both? If the cupboards are only used very occasionally, their location is not an issue. If they are used frequently by the teacher, their location is inconvenient. If they are used frequently by the students, access is poor for students in columns 2, 3 and 4.
- The layout is uninteresting and not stimulating.
- The layout is difficult to use flexibly.
- The layout has scope for relatively simple transformation into other layouts. For example, by turning their desks 90 degrees (clockwise or anti clockwise) students can make tables/groups of four:



Etc.



Classroom Layouts 3 and 4:

There is no physical difference in Classroom Layouts 3 and 4, as compared with Layout 2. All that has changed is the “labelling” of students. If the layouts are being used for group discussions in a teacher training/trainers workshop, it would be up to the groups to work out what the significance of the labelling might be. There are several interpretations or explanations. These different explanations all represent possible, valid, ways a teacher might wish to organise the seating of students according to their different characteristics. The purpose of the two layouts is to get teachers/trainers thinking about this.

All pupils with the label “A” have something in common. All pupils with the label “B” have something in common. What might this “something” be?

Perhaps all pupils marked “A” are girls and all pupils marked “B” are boys. In what circumstances might a teacher want boys and girls sitting next to each other; and in what circumstances might a teacher want boys and girls physically separated? Indeed, in what circumstances might a teacher want to take control of the seating of boys and girls, rather than leaving this to chance and preference? These are all good discussion questions. The answers will depend largely on context.

Perhaps all pupils marked “A” are “more able” and all pupils marked “B” are “less able”. In other words, the class is divided into two halves, according to ability. If this is the case, Classroom Layout 3 would work well, *if* the teacher wanted to set the two groups different levels of work: more-difficult for the “A” pupils; and easier for the “B” pupils. Perhaps the two groups would be working from different textbooks/ worksheets. The arrangement in Classroom Layout 3 would facilitate this, allowing sharing of books one-between-two.

However, as an alternative arrangement (Classroom Layout 4), the teacher may wish to ensure that “more-able” students sit next to “less able” students, so that cooperative and supportive learning takes place: the “more-able” students helping the “less-able”.

Another interpretation of Classroom Layouts 3 and 4 is that they could depict a multigrade situation. Perhaps all “A” students are Grade 3 pupils and all “B” students are Grade 4 pupils. The two layouts represent quite different ways of dealing with a multigrade situation. In the arrangement depicted in Layout 3, the two grades are separated from each other. They almost become two classes. In the arrangement depicted in Layout 4, it can be assumed the



teacher would want the Grade 4 students to help and support the Grade 3 students, on an individual basis.

The rather special situation of **multigrade teaching** is returned to later, when Classroom Layouts 15 and 16 are discussed.

Classroom Layout 5:

In Classroom Layout 5, only one thing has changed compared to Classroom Layout 2. In group discussion, the challenge would be to notice what has changed and suggest reasons for the change.

The answer to the question “what has changed and why?” is that a space has been created in the left-hand column of paired desks to allow students on the right-hand side of the classroom easier access to the two cupboards.

In other words, the reason for including this layout is to get teachers/trainers thinking about “**traffic flow**” around classrooms and also thinking about how classroom resources might be used and managed. In what circumstances would the cupboards only be for the use of the teacher, and in what circumstances (and why) might the teacher want the cupboards to be mainly used by the pupils?

Cupboards will be used by pupils if the cupboards are a store for pupil learning materials and the teacher is wanting to do any or all of the following:

- reduce the teacher’s own classroom management burden/workload;
- train students to be more responsible and encourage the development of their maturity by giving them increased responsibility;
- create conditions in which students can work with a degree of independence and on their own initiative.

Here is another example of “improved traffic flow” created by the single adjustment in Layout 5. If the teacher was working at the desk of **pupil number 21** and then **pupil number 16** put up his or her hand for assistance, the teacher would have a far shorter path to travel to reach pupil 16, as compared to Classroom Layout 2. Making this observation suggests that there are further improvements that could be made to Layout 5! It would probably be desirable



to create a similar access channel across the right hand side of the classroom. (Unfortunately, the space to do this is limited because of the position of the teacher's desk! A more fundamental re-design of the classroom layout may be called for! See, for example, Classroom Layout 6).

Classroom Layout 6:

Classroom Layout 6 is presented as a follow-up to the discussion of Classroom Layout 5. The extra access channel **across** the right hand column of paired desks has now been created.

In addition, the cupboards and table have been moved to the **centre** of the classroom. This is a further improvement on Classroom Layout 5, if all three pieces of furniture are regularly used by the pupils themselves.

The furniture in this layout also creates a natural "partition", emphasising the distance and distinction between the two sides of the classroom. This may be considered "desirable" or "undesirable", depending on the context and the "atmosphere" it is wished to create.

There is one other fundamental change that has been made in Classroom Layout 6 – different to all previous layouts – and that is the position of the teacher's desk!

This has been moved to the back of the classroom! For those teachers/trainers who have never experienced, or considered, placing the teacher's desk in this way, they may need a lot of convincing that such an arrangement can be acceptable and effective!

However, this really is a well-tested and potentially effective arrangement. It is one that is worth considering. It has a number of potential advantages, again depending on the "atmosphere" it is wished to create.

Placing the teacher's desk at the back of the classroom makes the teacher less dominant and less of an "authority" figure. It helps to create a more "informal" atmosphere. If students are working independently on a set task, the teacher will not be within their line of sight. It will almost be as if the teacher is not in the room. This can help students to get used to the feel of working on their own and build their confidence to do so. In other words, placing the teacher's desk at the back of the room can help to create an atmosphere that encourages students to be more mature, responsible and independent.



Placing the desk at the back of the classroom can at times be useful to help the teacher to gain the initiative in the maintenance of classroom discipline. All teachers will be familiar with the student who waits carefully until the teacher is not looking, before misbehaving – for example, disturbing a neighbour or throwing something across the classroom.

When the teacher is positioned at the back of the class, the teacher has a full view of the class. However, any pupil with an act of misbehaviour in mind has to turn round to check whether or not the teacher is looking. The pupil will have no justifiable reason to turn around in this way. (It also involves a very different and more obvious kind of movement than simply looking up towards the blackboard to check whether the teacher is paying attention). Frequent turning around will be far easier for the teacher to spot and caution.

The main disadvantage of positioning the teacher's desk at the back of the classroom is that the teacher has to walk the full length of the classroom, when moving between the desk and the blackboard.

Layout Number 6, with the teacher at the back of the classroom, is especially important as it has the potential to really challenge the views of teachers/trainers, concerning how a classroom can be arranged effectively. It can help to open their minds to new possibilities.

There are two relatively minor details in Classroom Layout 5 that are worth pointing out. Firstly, notice the directions the cupboard doors are facing. This suggests that one set of cupboards would be used primarily by pupils on the right-hand side of the room, and the other set by pupils on the left-hand side of the room. Secondly, the table placed at the front of the room would be very convenient for the teacher to use when the teacher moves to the blackboard to do some formal teaching.

A final point to be made about Classroom Layout 5 is the potential it has to be transformed relatively easily into basic **group** layouts, with tables of four or eight students. The access channels dividing the room horizontally, and the furniture dividing the room vertically, create four natural "quarters". Each "quarter" can be transformed into a group of eight pupils or two groups of four pupils with only minimal movement of pupil desks. These two possibilities are illustrated in Classroom Layout 7 and Classroom Layout 8.



Classroom Layouts 7 to 11:

Classroom Layouts 7 to 11 all show examples of different ways pupils' furniture can be arranged in **groups**.

Classroom Layout 7 and Classroom Layout 8 can be presented as a follow up to discussion of Classroom Layout 6. They show how Classroom Layout 6 can be transformed easily into group arrangements: eight pupils to a table, and four pupils to a table.

For formal blackboard teaching, the ideal is that students should be sat facing the blackboard directly.

A first point to be noted is that when pupils sit around a large table, some kind of compromise is necessary with regard to their position in relation to the blackboard. It will not be possible for all students to be facing the blackboard directly. It is also highly desirable that no student should have his or her back turned completely away from the blackboard.

It is not unreasonable to expect pupils to have to turn their heads, their bodies, or their chairs slightly, in order to be facing the blackboard. This can be achieved with minimum classroom disruption. This is the kind of compromise that group arrangements usually demand.

Classroom Layouts 7 to 11 all have the following important characteristics. They are all:

- entirely satisfactory (if not absolutely ideal) for formal class teaching. All students can face the front of the class, to see the blackboard, with only small adjustments to their seating position;
- ideal for cooperative learning and discussions;
- ideal for sharing of materials;
- very flexible and extremely well suited to many teaching styles;
- ideal for group work;
- almost ideal for pair work;
- ideal for practical work;
- not well-suited for conducting a formal examination - pupils are too near to each other and would be able to copy.



Examples of non-traditional layouts being used in Turkish schools in support of group teaching and cooperative learning





In addition, in all these layouts:

- “Traffic flow” conditions are good.
- The layouts encourage movement, including teacher movement.

Classroom Layout 9:

Classroom Layout 9 differs from Classroom Layouts 1 to 8 in that it is the first layout to break away (if only a little) from a rigid grid pattern. In Classroom Layouts 1 to 7, everything is arranged in rigid rows and columns. Rows and columns create a traditional and formal atmosphere. Pupils are arranged rather like soldiers on parade, in neat rows and columns.

Classroom Layout 9 sets out to create a relaxed and informal atmosphere. In addition, the angle at which tables are positioned, in relation to the blackboard, is purposely intended to minimise the angle that pupils have to turn in order to face the board directly.

The position of the teacher, when sat at the teacher’s desk:

- is very convenient for receiving visitors who enter the classroom;
- is convenient for moving to the blackboard to do whole class teaching;
- is well-suited for comfortable supervision of the whole class.

However, because the teacher is not sat directly in front of the class, but towards the side, this further helps to ***reduce*** the ***formality*** of the Layout: the teacher appears less dominant and less of an authority figure.

The position of the cupboards and table in Classroom Layout 9 is convenient for both the teacher and the students. Access routes are all good.

The overall layout creates an interesting and stimulating atmosphere.



Classroom Layout 10:

In addition to the characteristics shared by Classroom Layouts 6, 7, 8, and 9, Classroom Layout 10 incorporates the following distinguishing features:

- The layout is informal and interesting.
- The teacher's desk is located at one side of the classroom, in a position that offers good supervision of the whole class, but is not overly dominant.
- The two cupboards have been used to make a "quiet area" – suitable for relaxed, silent reading. This "quiet area" has been given a carpet, and could also be given cushions. The space could also function as a "play area" instead of a "quiet area". Areas such as these are especially useful in classrooms for younger children.
- The general classroom table has been placed next to one of the group tables to create a "base" that would be especially suitable for practical work: extra room is created for apparatus and other practical materials such as paints and brushes. The table is also convenient for the teacher to use, when working at the blackboard.

Classroom Layout 11:

The furniture arrangement in Classroom Layout 11 is the same as Classroom Layout 10, but groups have been colour coded and labelled to reinforce the possibilities that are offered by layouts of this kind.

The layout is well suited for:

- whole class teaching
- group work, where all the groups are working on the **same** activity
- Group work, where each of the groups is working on a **different** activity.

It is this last possibility that the colour coding on Classroom Layout 11 is designed to draw attention to:

- Perhaps students on Table A are doing maths; students on Table B science (the extra table would give more room for apparatus); students on Table C, language; and so on.



- Perhaps the students are all studying the same subject, but working at different levels, or different activities within the same subject.
- Perhaps a maths lesson is taking place: students on Table A are completing a worksheet on “area”; students on Table B are completing an activity on “volume”; students on Table C are investigating the properties of “shapes”; and so on.

There is another fundamental choice that is involved with use of layouts in this way and that is to do with what happens when students ***change*** activities. Does Mohammed go to the mountain? Or does the mountain come to Mohammed?

In the classroom, there are two perfectly acceptable alternatives:

Either:

- The students can change tables. For example the students would move from the “maths table” to the “science table”.

Or:

- The students stay at the SAME table, and the activity at the table changes.

If no specialist equipment is involved, it will be usually be simpler for the students to stay at the same table and for the activity to change on that table.

However, perhaps one of the tables is using a computer and there is only one table that is near an electric wall socket. In a situation such as this, it would be better if the students changed tables when it was their turn to do an activity using the computer.

The most important summary observation to be made about Classroom Layouts 7 to 11 is that they will all function well for formal class teaching, where the teacher is working at the blackboard in a traditional way. However, all of these layouts are vastly more flexible than a traditional classroom layout. They lend themselves well to many other forms of teaching and learning, including group activity, pair work, and practical work.



Classroom Layout 12:

Classroom Layout 12 is a fairly formal arrangement, well suited to traditional teaching but not very flexible otherwise. Some attempt has been made to reduce a feeling of rigidity, and to add interest, by arranging desks at slight angles.

This layout would be particularly well suited to one special teaching condition and this is the main reason for its inclusion. Classroom Layout 12 would work well if there was a shortage of key learning materials such as textbooks and worksheets, and especially if there were sufficient to share one-between-three, and not one-between-two.

Classroom Layouts 13 and 14:

Classroom Layouts 13 and 14 are both rather special purpose layouts. They are particularly well suited to teaching that involves a lot of any of the following three activities:

- Discussion
- Role Play
- Practical Demonstrations

There are three key features of both designs:

- There is a **large central area**, which all students are facing. It can function like a stage in a theatre. It is an ideal space for role play and demonstrations. All students will have a good view of the activity. No student is a long distance away from the activity. (Compare this arrangement with, for example, Classroom Layout 1. If the teacher was conducting a practical demonstration at the front of the class, in Layout 1, it would be very difficult for students at the back of the class to see, or feel involved.)
- In layouts 13 and 14, most students get a “front row” view of any activity. Only a few students have to settle for a “second row” view. No student is seated in a “third row”, or worse.
- From anywhere in the room, any student can make **eye contact with MOST other students** without having to turn round. This is good for discussions.

Real Life Examples (from China) of Layouts
somewhat similar to Layouts 13 and 14

These layouts are special purpose layouts – particularly well suited to role play,
whole class discussion, and teacher demonstrations





Students can talk to each other naturally, including seeing each other's facial expressions.

It should be noted that Layouts 13 and 14 are not perfect in this respect. It has been necessary to make compromises because of the large number of students and the size and shape of the room. For example, in Layout 13, pupils 4 to 9 would have to swivel in their chairs for demonstrations and discussions, and they would have their backs to pupils 1, 2 and 3, and 10, 11, and 12. In Layout 14, pupils 25 to 32 each have their backs facing a small number of other students.

- The layouts will still function reasonably well for some formal teaching. All students can still see the blackboard by making a small adjustment to their natural seating position.

The layouts are interesting and stimulating in the “atmosphere” they create. They would work well for pair work, but are not well suited to group work or practical work.

A summary observation is that there is no single layout that is perfect for all types of teaching. However, clearly, some layouts are far more versatile than others and some layouts are particularly well suited to certain types of teaching situation.

Classroom Layouts can also be changed! If necessary and appropriate, they can be changed from lesson to lesson and even within lessons!

Classroom Layouts 15 and 16:

Classroom Layouts 15 and 16 are both good examples of how a classroom could be set up for multigrade (or multilevel) teaching, in a context where it was wished to keep two groups separate. (It should be remembered, however, that separating multigrade classes is not the only teaching strategy. There are other choices that can be made. See, for example, Classroom Layout 4, and the comments relating to this.)

Classroom Layout 15 is “more formal” in its basic characteristics. Classroom Layout 16 is “less formal”.

Both layouts have the following important features in common:

- The position of the teacher's desk is well placed for supervising both classes.
- The furniture has been used to create a partition between the two classes.
- All students can see a blackboard comfortably from their seating position (A second, portable, blackboard has been introduced in both of these layouts).

In Classroom Layout 15, the table is conveniently located for when the teacher is working at the blackboard on the wall. Both layouts are functional in terms of the conditions they create for pupil and teacher “traffic flow”.

DESIGNING CLASSROOM LAYOUTS

Teachers are encouraged to experiment with designing their own layouts. This way, layouts can be uniquely suited to the special characteristics of the room and the furniture and equipment within it, as well as the characteristics of the students.

It is often a good idea to experiment with scale drawing designs on paper.

A cut and a paste template has been provided as part of the **Annex** to this booklet, to encourage this kind of practical activity:

This would make a good workshop activity. Participants can create their own layouts. They can then share them with others. Participants can explain their thinking behind the layouts: why they were designed in this way. Other participants can give their feedback. They can comment on the features they like. They can point out the strengths and weaknesses they notice and provide an overall evaluation.



Designing Classroom Layouts
in a teacher training workshop

ALTERNATIVE FURNITURE DESIGN?

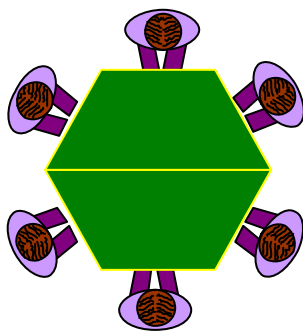
Unfortunately, the traditional furniture found in many Turkish classrooms (and as shown in the photograph on the right) is not especially well suited for modern teaching methods. It is insufficiently flexible in the way that it can be arranged: especially for group teaching. There is a challenge here, therefore, for policy makers and planners when new furniture procurements are made!



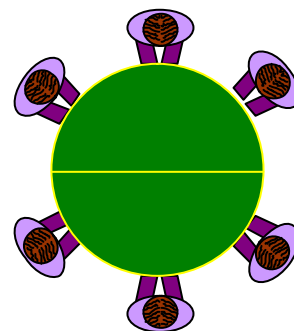
This section of this booklet draws attention to the experience of the Gansu Basic Education Project in China, funded by the British Government's Department for International Development (DFID). The Gansu Basic Education Project (GBEP) is a project with many similarities to the Support to Basic Education Project in Turkey. This project too, has promoted modern, participative methods of teaching, with lots of emphasis on group work and cooperative learning.

The project experimented with new designs of furniture. The results have been so impressive, and proved so popular with teachers that the story is worth telling here.

Two shapes of desk were considered: semi-circular and semi-hexagonal. Both of these types of desk lend themselves to be placed in pairs to create a group-working environment.

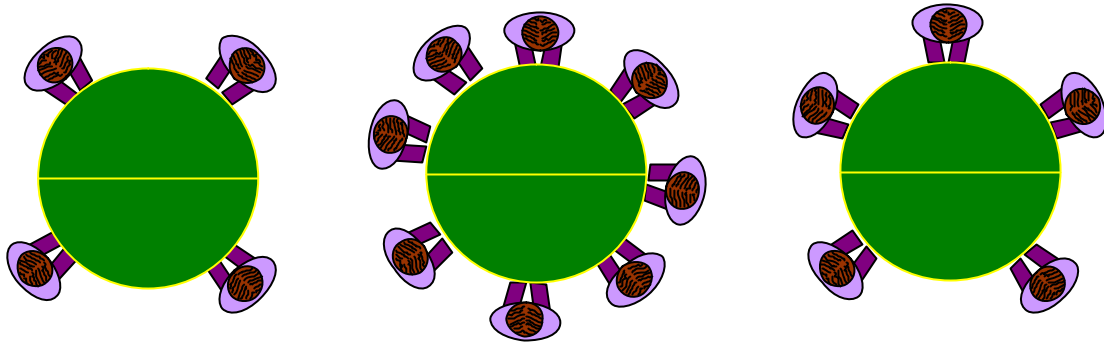


Two semi-hexagonal desks placed together comfortably seat six students.

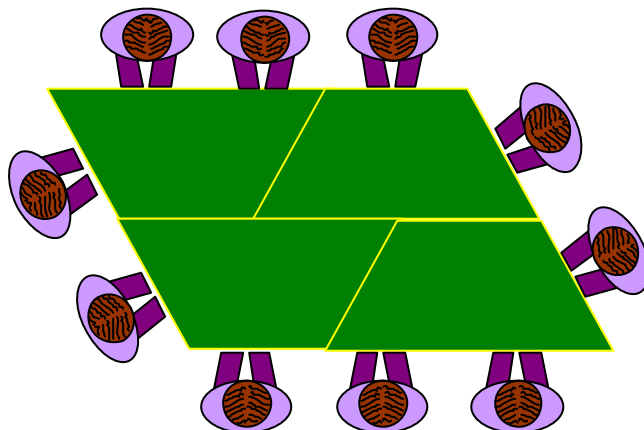


Two semi-circular desks placed together also comfortably seat six students.

The semi-circular desk has one important advantage over the semi-hexagonal desk, in that it can more-flexibly seat different numbers of students:

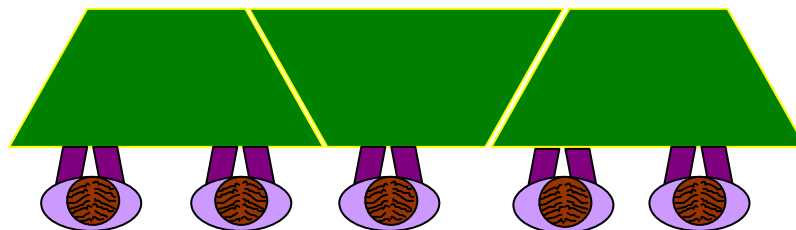


The semi-hexagonal desk, however, has three important advantages compared to the semi-circular desk. A first advantage is that a semi-hexagon is a shape that “tessellates”: it fits together in different ways without spaces:



An example arrangement of four semi-hexagonal desks, to make a large group table comfortably seating ten students.

The second advantage of semi-hexagonal furniture is that it can also be arranged satisfactorily to make traditional rows, if this is required:

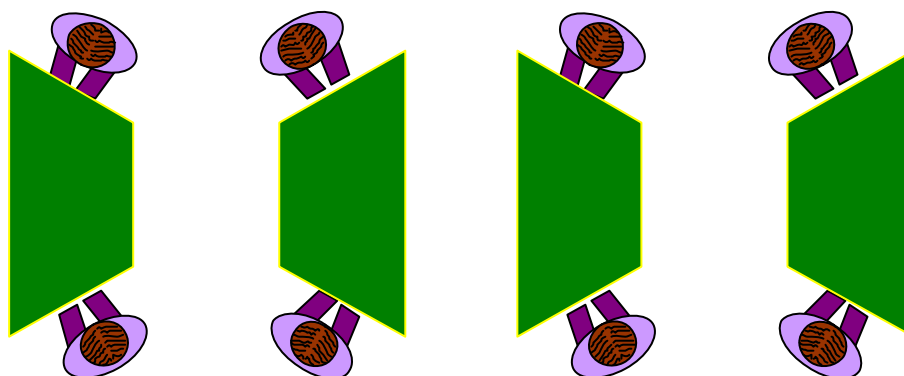


Note how the same arrangement cannot be achieved so well using semi-circular desks:



A very important characteristic of semi-hexagonal furniture is that it can, if required, be arranged to create formal examination conditions: where no student can cheat by copying the work of a neighbour. Many teachers in GBEP did not realise this would be possible, and mistakenly presumed that this was a disadvantage of semi-hexagonal furniture compared to standard furniture.

Semi-hexagonal furniture arranged to create formal examination conditions:



After assessing the advantages and disadvantages of both shapes of desk, the GBEP opted to pilot semi-hexagonal desks in Primary Grades One to Three.

The Semi-Hexagonal Desk in Use:

The enthusiasm with which GBEP teachers reacted to the introduction of semi-hexagonal desks has been nothing short of remarkable. Teachers, greatly preferred the semi-hexagonal desks over traditional desks, after becoming used to them.

Within the GBEP experience, no teacher ever chose to arrange the semi-hexagonal desks in a formal or semi-formal way. All have used the semi-

hexagonal tables, paired together, to make hexagonal teaching layouts accommodating six students, as shown in the photograph on the right.

What is even more remarkable is that the provision of semi-hexagonal tables, on its own, appears to have been capable of transforming the way teachers teach and move around the classroom, and also the way in which students interact with each other. Indeed, one of the most striking features of the use of semi-hexagonal desks relates to teacher movement. Teachers are far more likely to be seen moving around all areas of the classroom, helping children on an individual or small group basis – as compared to situations where traditional layouts are found. This is a very positive development.



The semi-hexagonal furniture piloted by the Gansu Basic Education Project, arranged into hexagonal formations. Note the position of the teacher. This kind of furniture seems to promote teacher movement and participative learning and teaching.

Of course, where teachers have been exposed to participative methods of teaching, through training, their expertise and confidence in adapting to the use of the new furniture has been all the greater. But, even teachers who have not received such training appear to have modified their teaching styles and behave in a different way because of the fundamental effect the furniture has had in defining the classroom layout in a non-traditional way. Such teachers have also soon grown to like the furniture and would not want to go back to the use of traditional furniture, given a choice.

During a review of the Gansu Basic Education Project, reviewers put the following proposition to a number of teachers, with experience of using semi-hexagonal desks in lower grades. "If your principal asked you to teach Grades Four or Five next year, and if you had a choice of semi-hexagonal desks, modified for height, or standard desks in a higher grade classroom, which would you prefer?" All teachers said they would also prefer the semi-hexagonal desks for use with older students, too.

This is an interesting finding. Most head teachers, civil works staff, and other education officials, who had not actually taught using the semi-hexagonal desks, whilst enthusiastic about their use in the lower grades of primary school, were more doubtful about the appropriateness of semi-hexagonal desks for higher grade students. This may partly be because they had not realised that semi-



hexagonal desks can still be arranged satisfactorily to create formal teaching and examination conditions, when required. Perhaps it is teachers themselves, who have actually experienced using the furniture, who may be better judges of its advantages and appropriateness.

The GBEP reviewers concluded that the impact of the semi-hexagonal desks has been so immense that they strongly recommended the wide-scale adoption of semi-hexagonal or semi-circular desks in lower grade classrooms. They also strongly recommended the piloting of semi-hexagonal furniture, modified for height, for higher grade students

Because, in actual practice, GBEP lower-grade teachers only ever seem to use the semi-hexagonal furniture in pairs to create complete hexagons, it may also be worth reconsidering the use of semi-circular tables to create circles. As already noted, a circular table allows greater seating flexibility compared to a hexagonal table

The Cost of Semi-Hexagonal Desks

Education planners and finance officials will be keen to know about the costs of providing semi-hexagonal furniture, compared to standard furniture. In the case of GBEP, the cost of supplying semi-hexagonal desks, on a pilot basis, worked out only a little higher than the cost of standard desks and chairs. It seems quite possible that, if semi-hexagonal or semi-circular furniture was ordered and produced in large quantities, economies of scale would be created: reducing or even completely overcoming the price differential.

All things considered, therefore, as far as China is concerned, an enormously strong case appears to exist for the wide-scale adoption of non-standard furniture: especially in the lower grades and possibly in all primary classrooms, subject to further experimentation in Grades Four and Five. The GBEP experience of piloting the use of non-standard furniture also has relevance for many other countries in the world, including Turkey, where traditional furniture is often still used without question.

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ANNEX

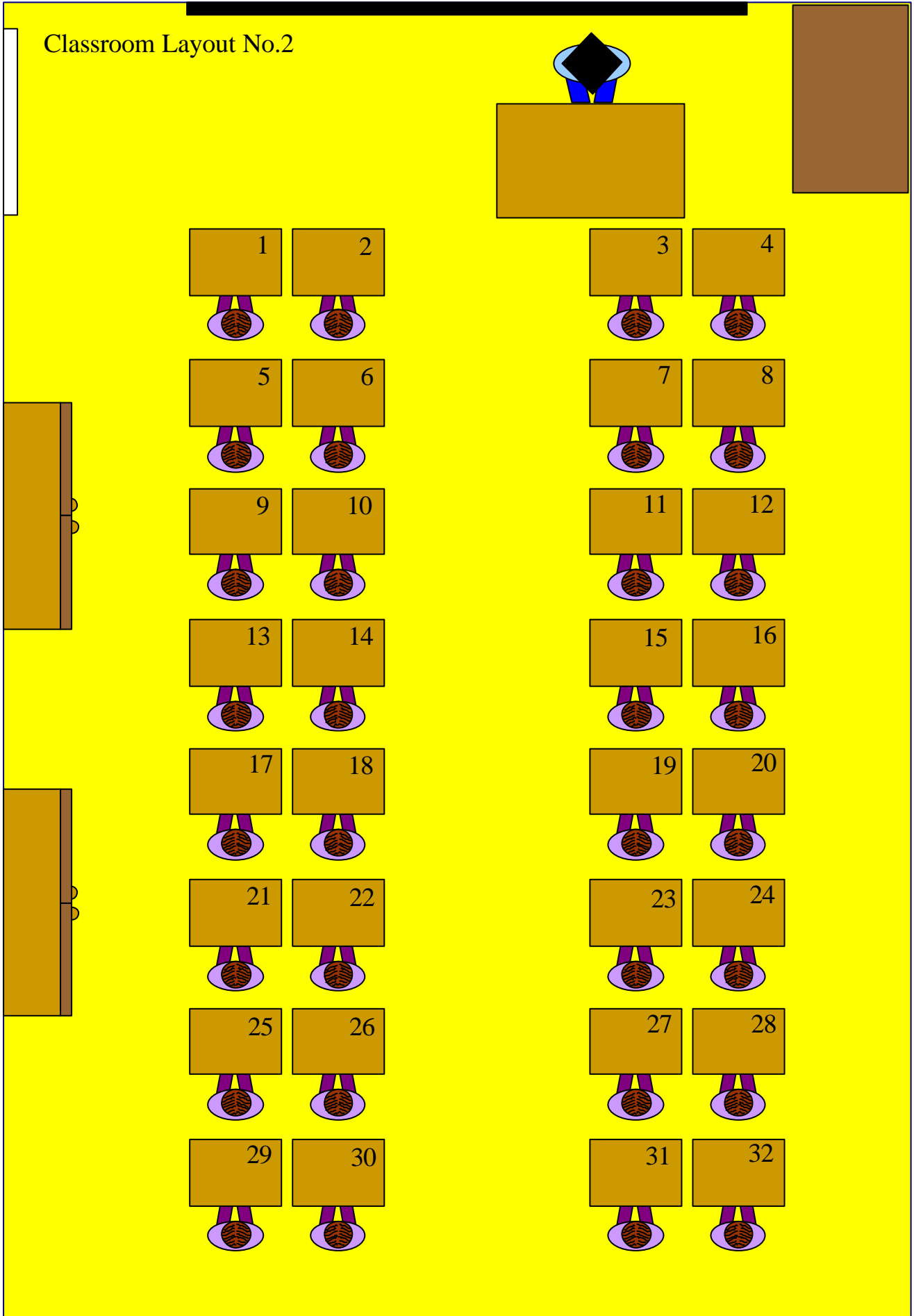


Classroom Layout No.1



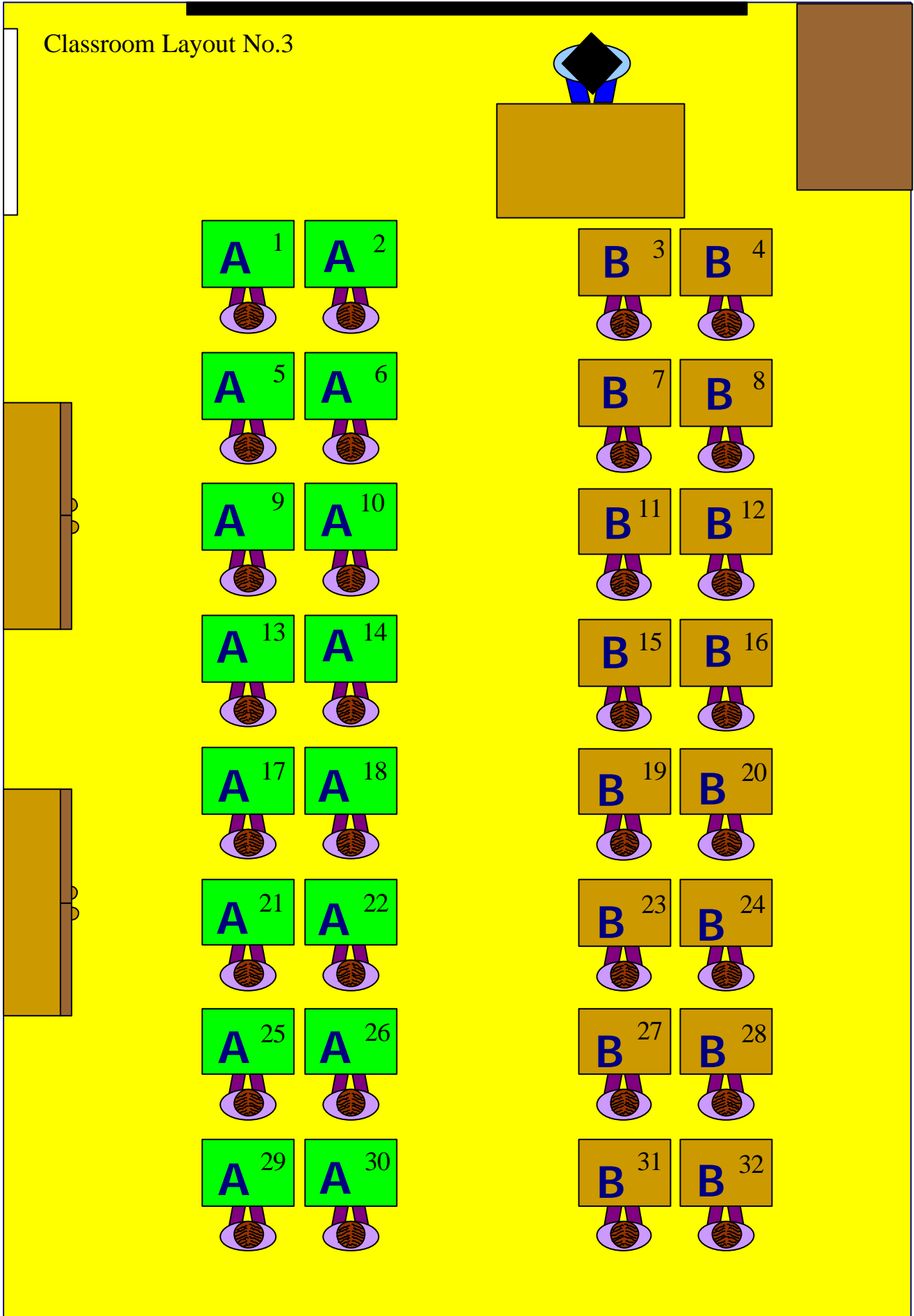


Classroom Layout No.2





Classroom Layout No.3





Classroom Layout No.4

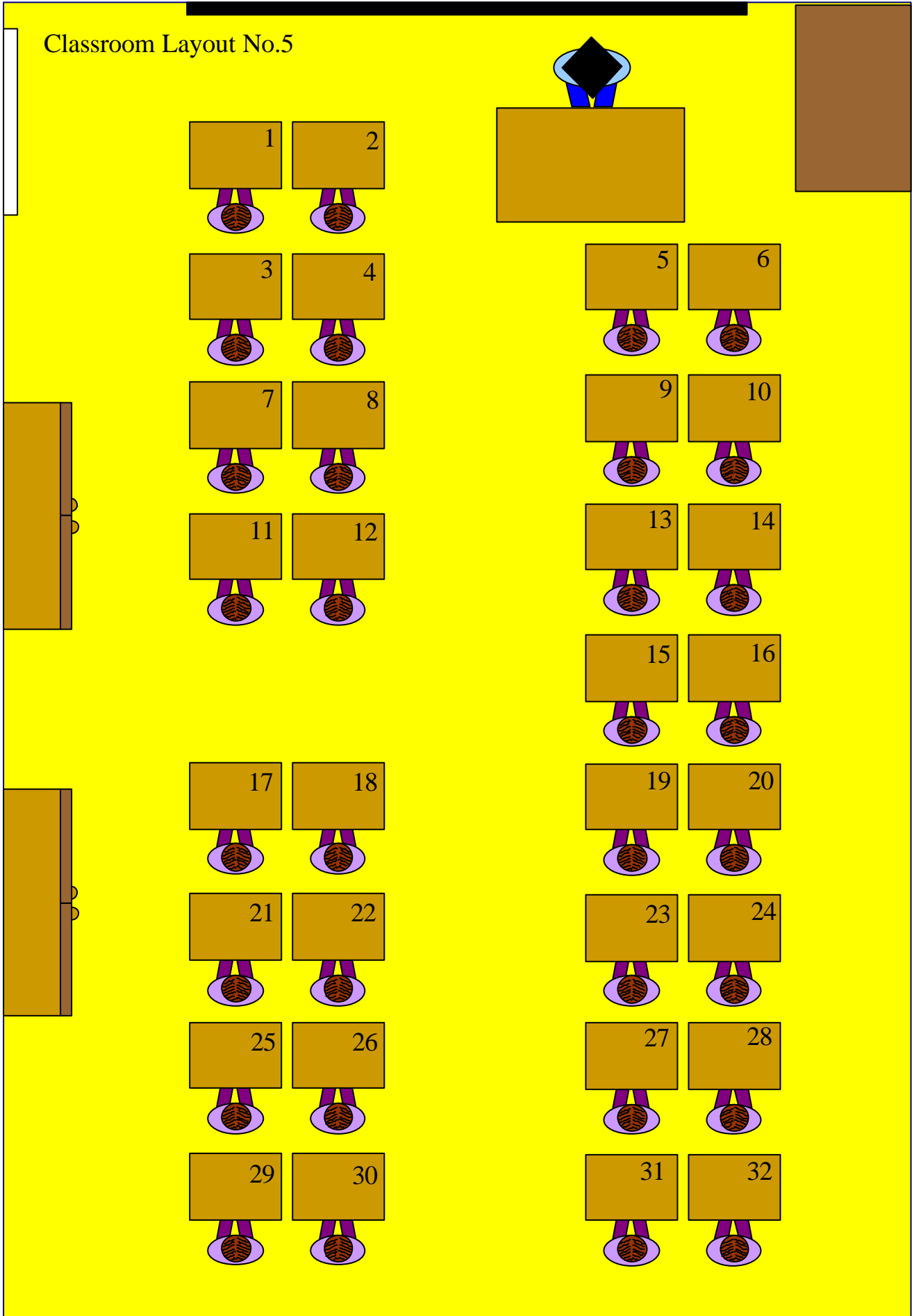


A ¹	B ²
A ⁵	B ⁶
A ⁹	B ¹⁰
A ¹³	B ¹⁴
A ¹⁷	B ¹⁸
A ²¹	B ²²
A ²⁵	B ²⁶
A ²⁹	B ³⁰

A ³	B ⁴
A ⁷	B ⁸
A ¹¹	B ¹²
A ¹⁵	B ¹⁶
A ¹⁹	B ²⁰
A ²³	B ²⁴
A ²⁷	B ²⁸
A ³¹	B ³²

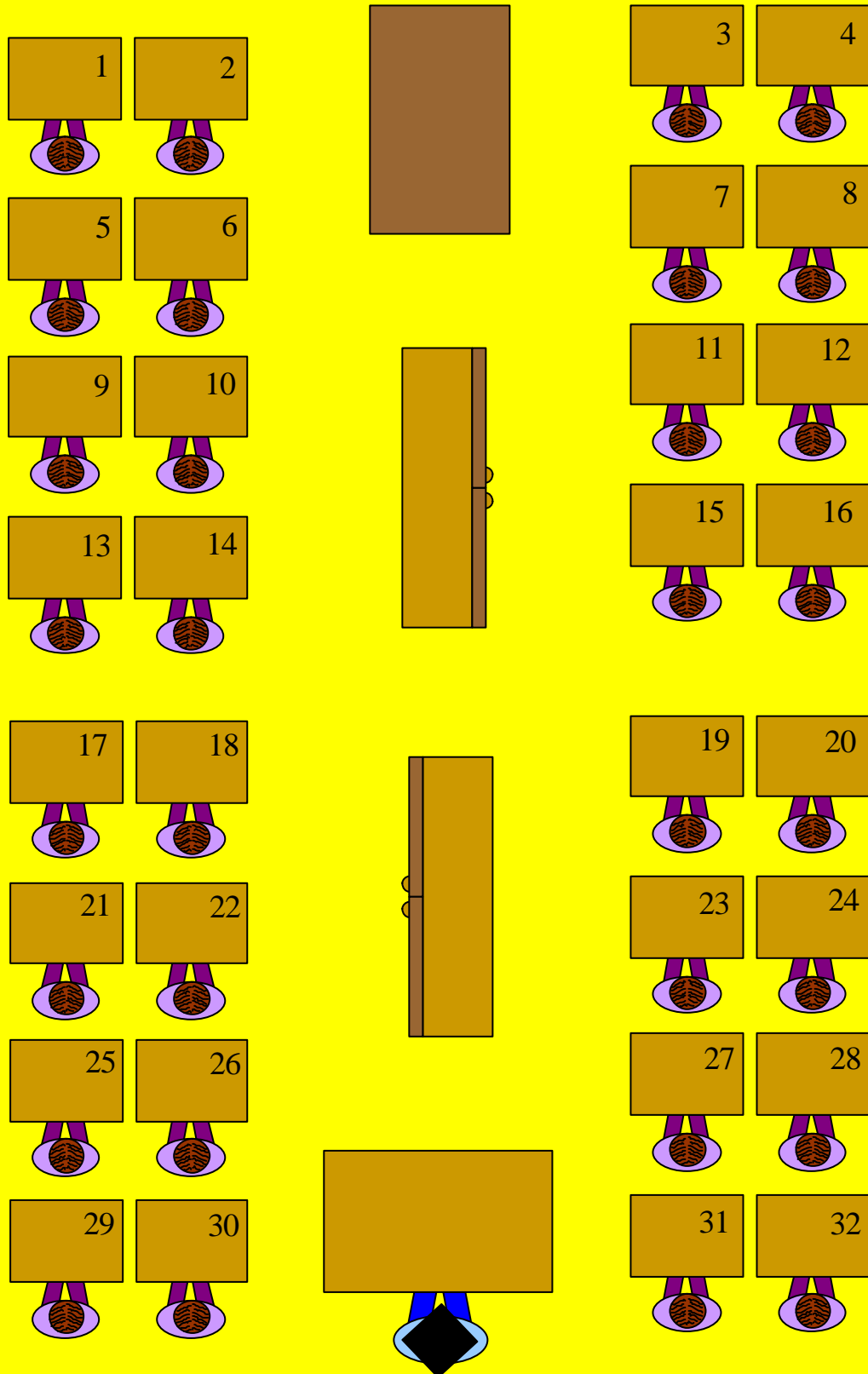


Classroom Layout No.5



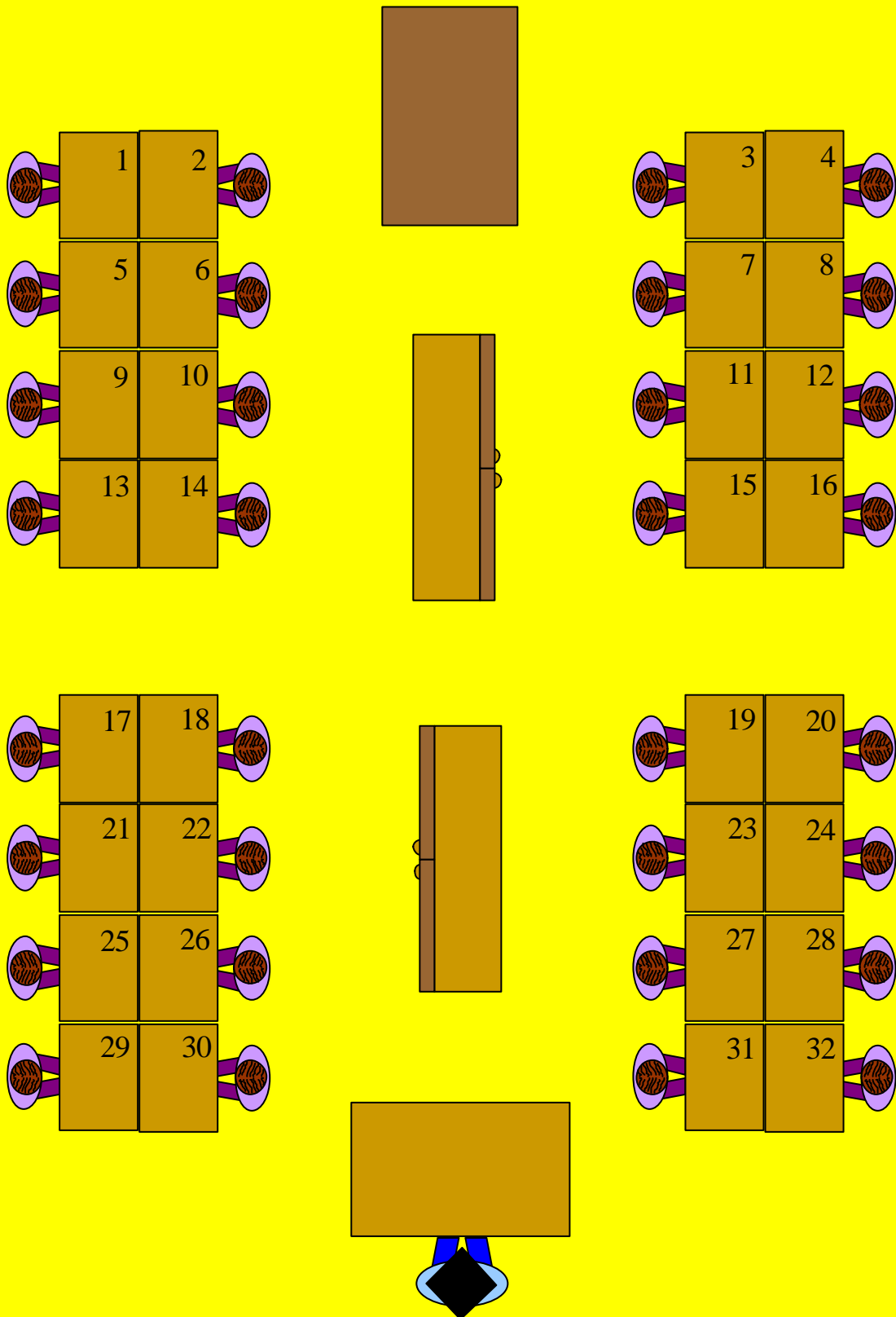


Classroom Layout No.6



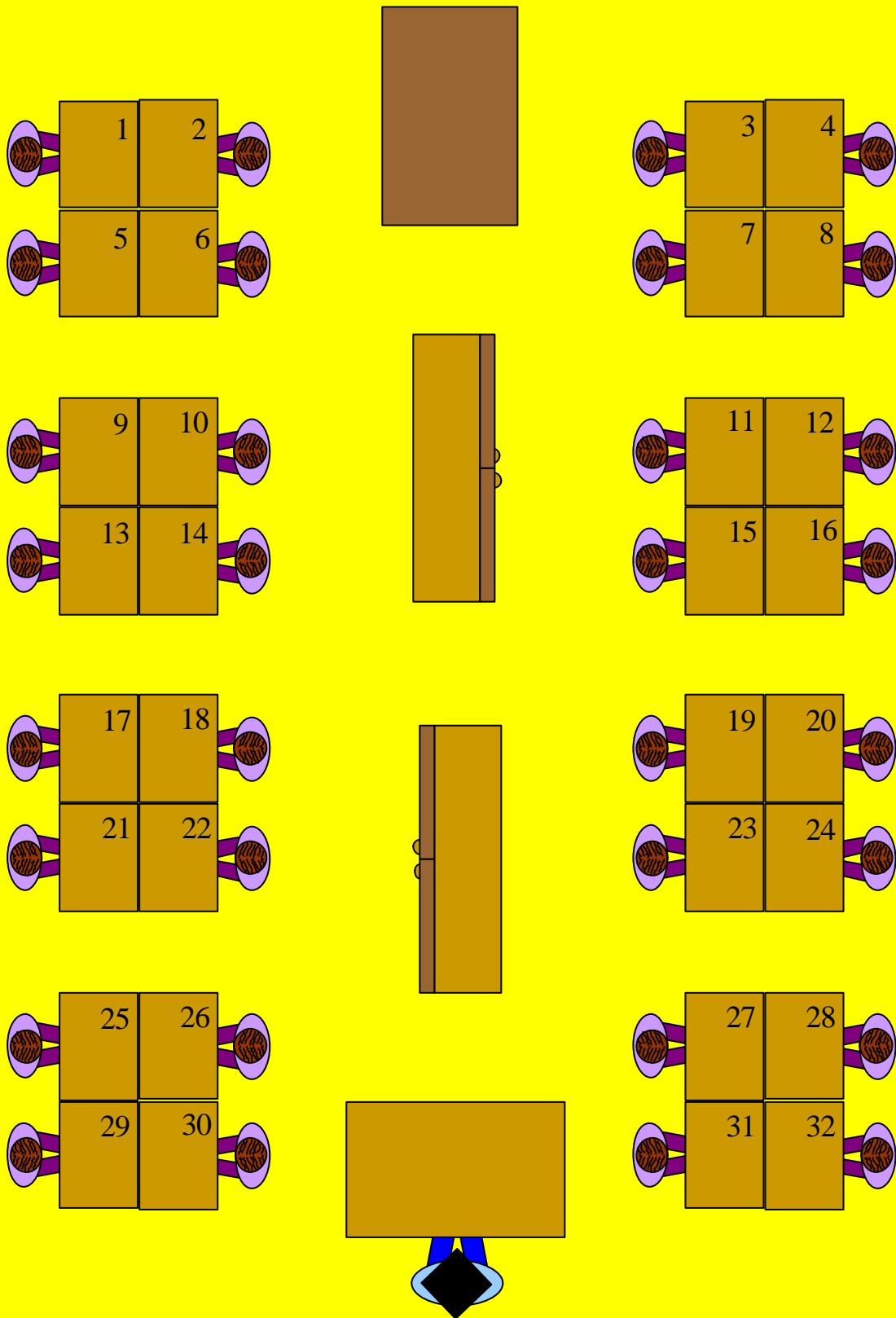


Classroom Layout No.7



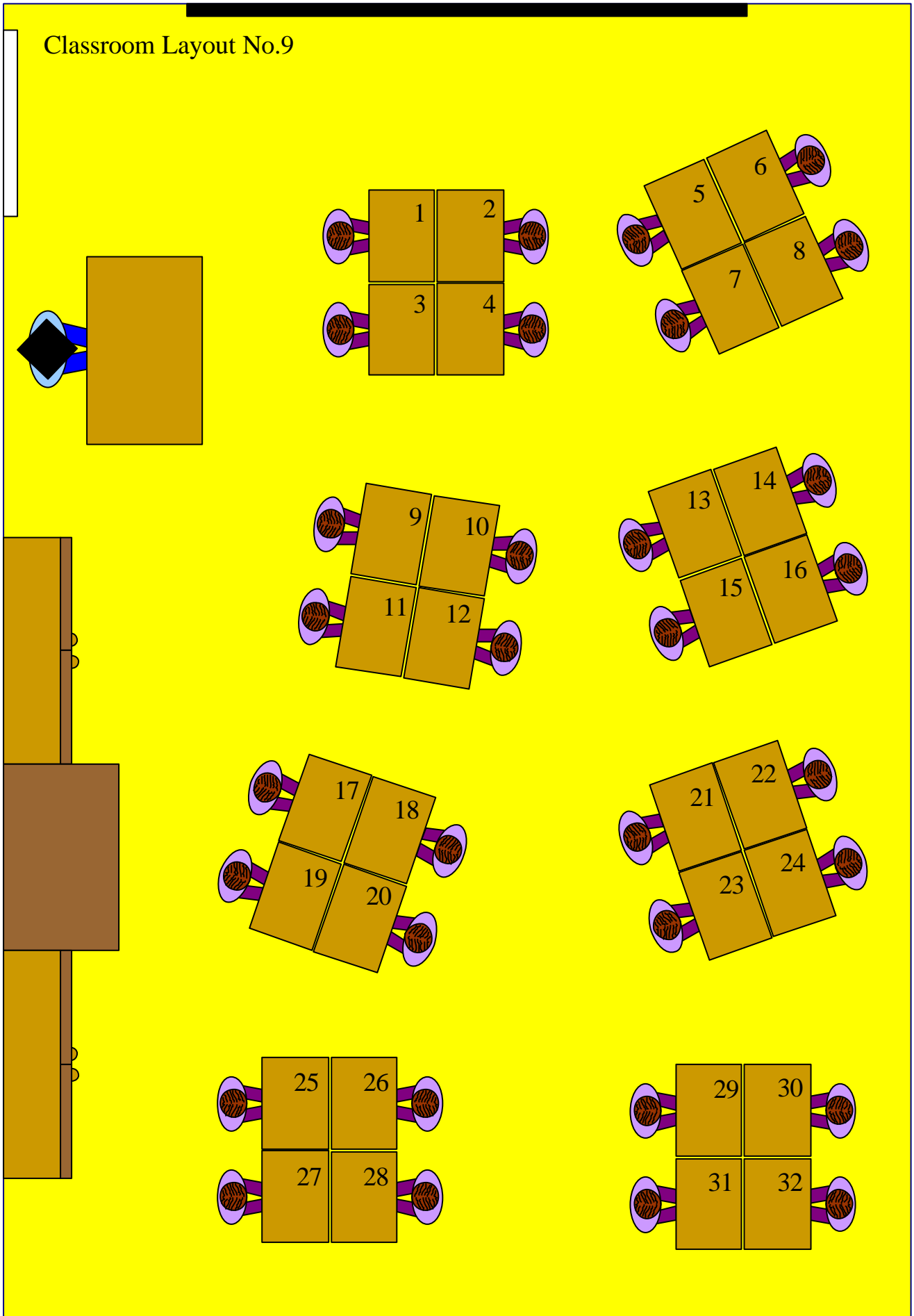


Classroom Layout No.8



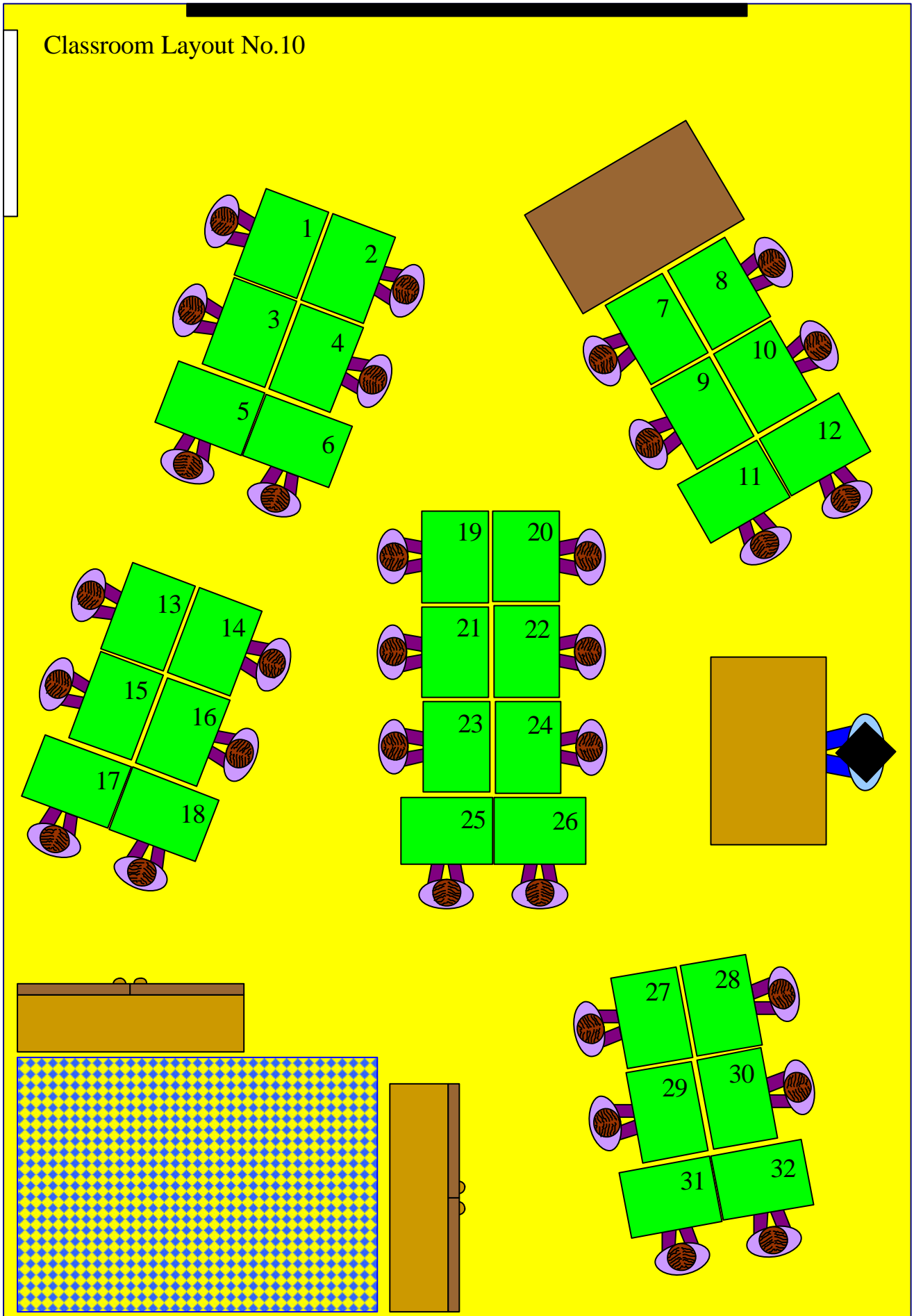


Classroom Layout No.9



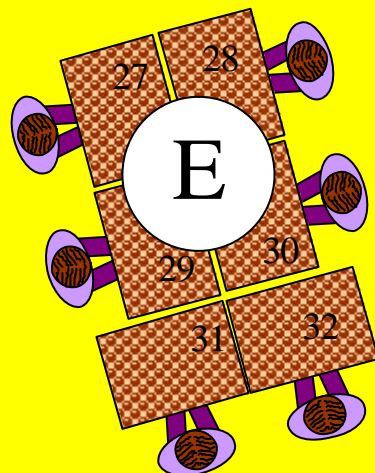
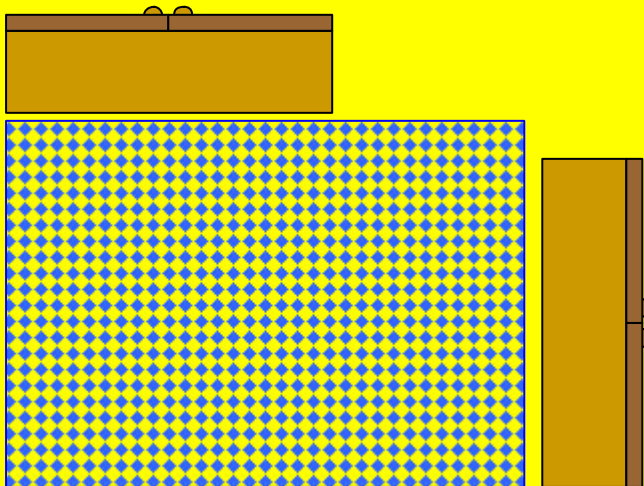
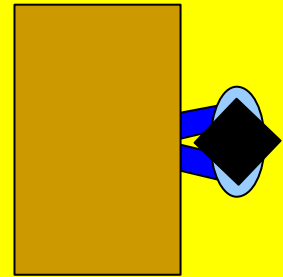
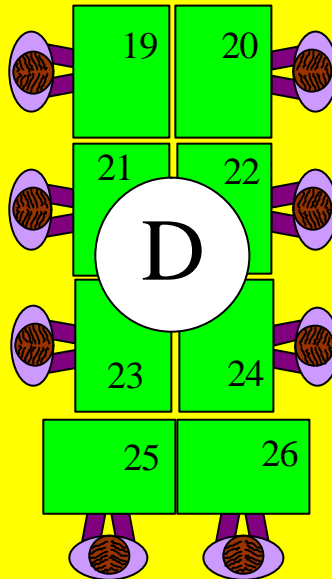
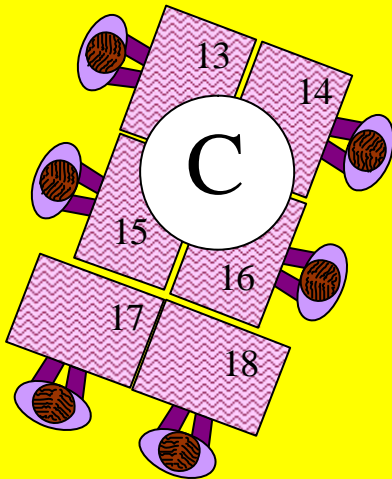
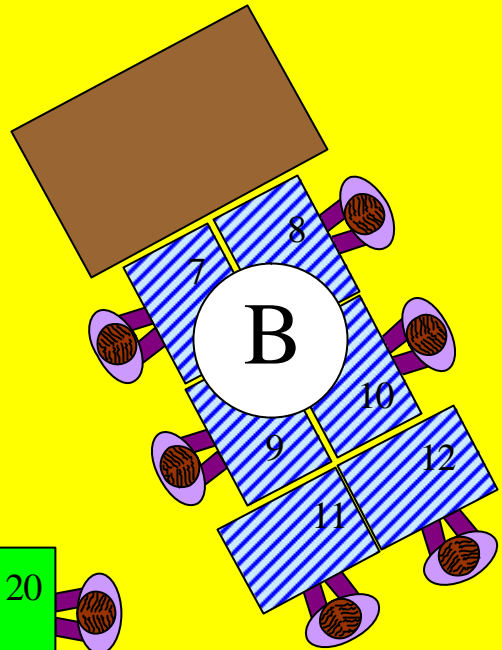
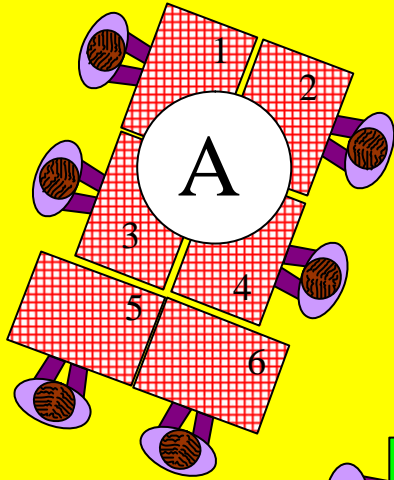


Classroom Layout No.10



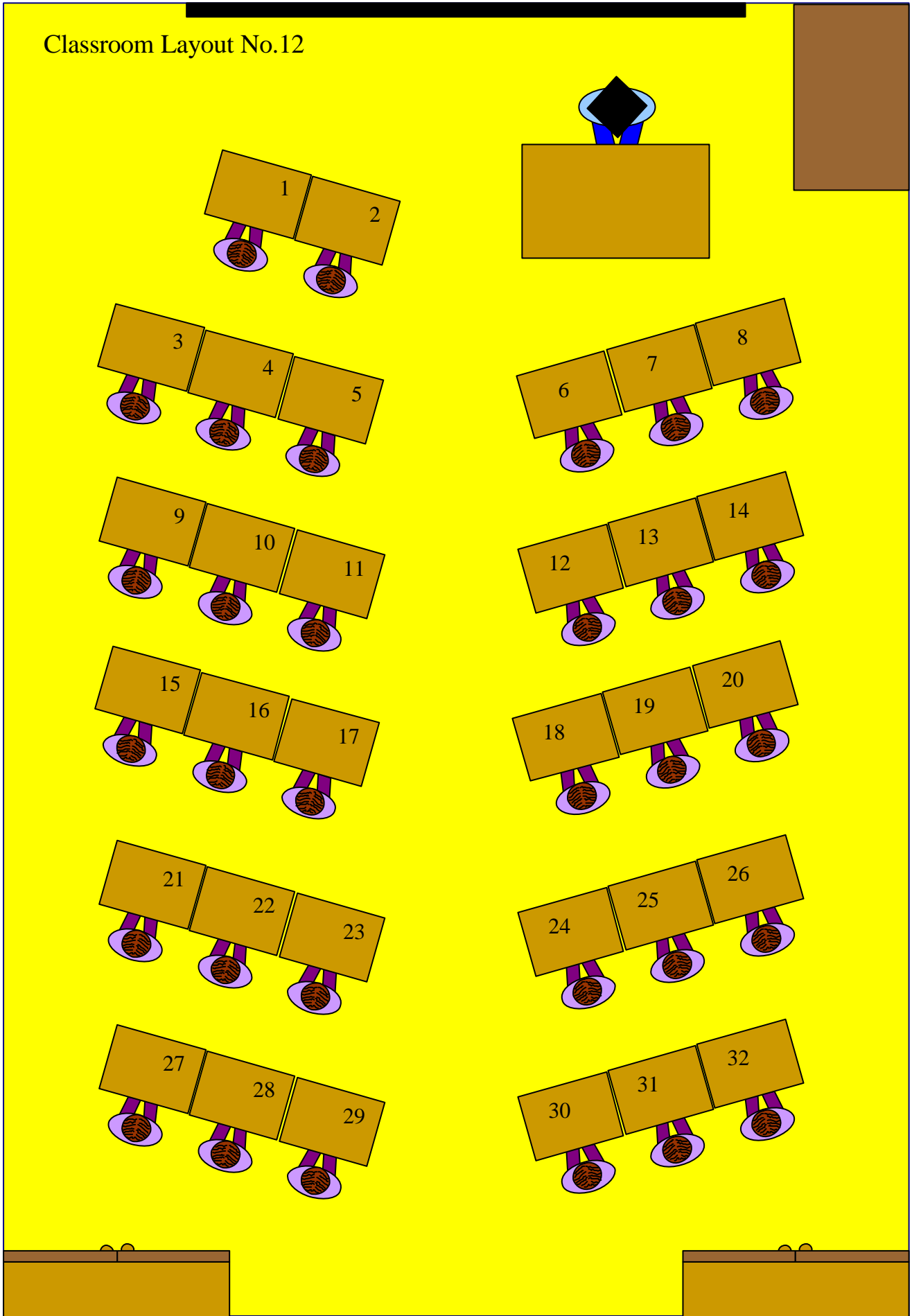


Classroom Layout No.11



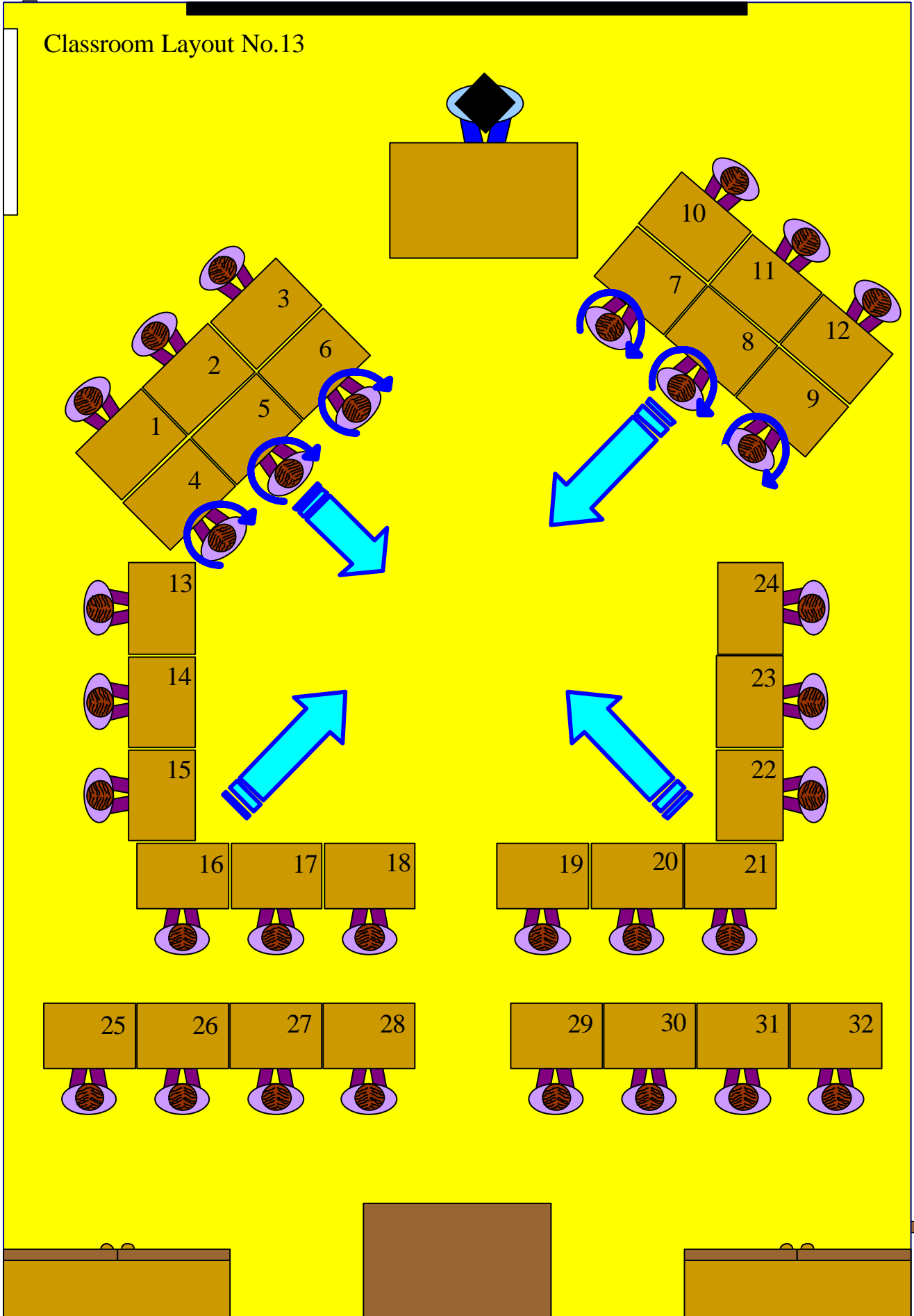


Classroom Layout No.12



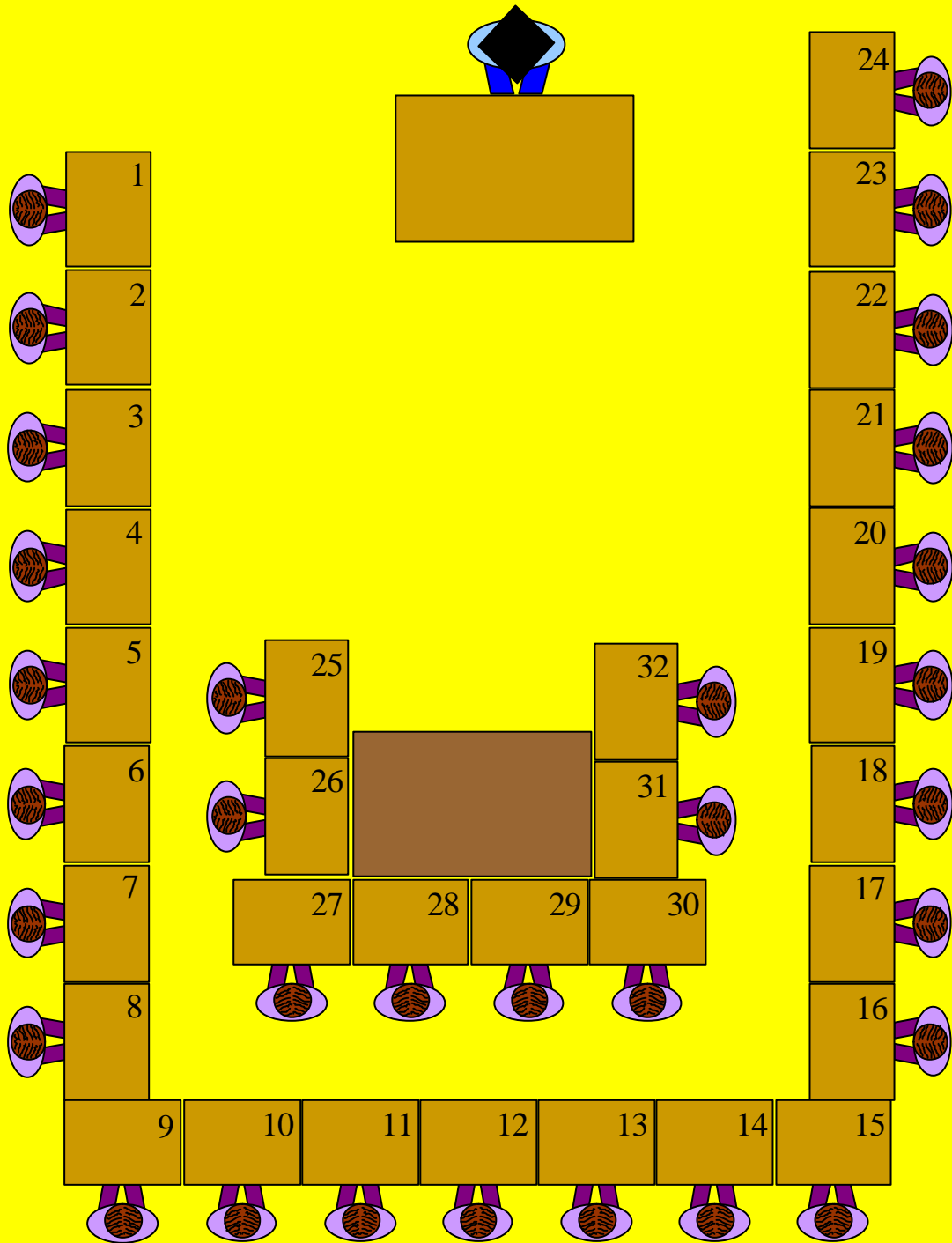


Classroom Layout No.13



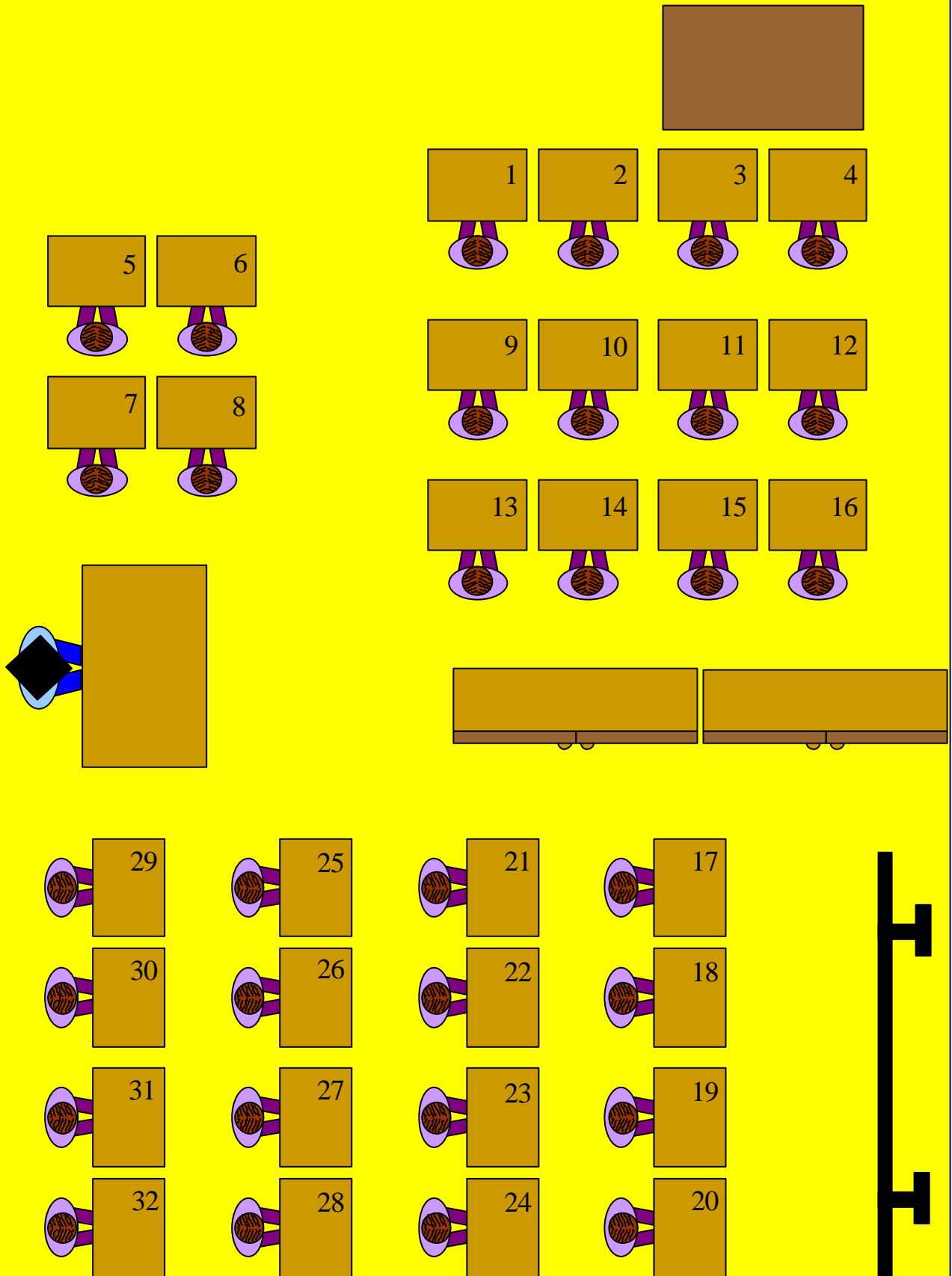


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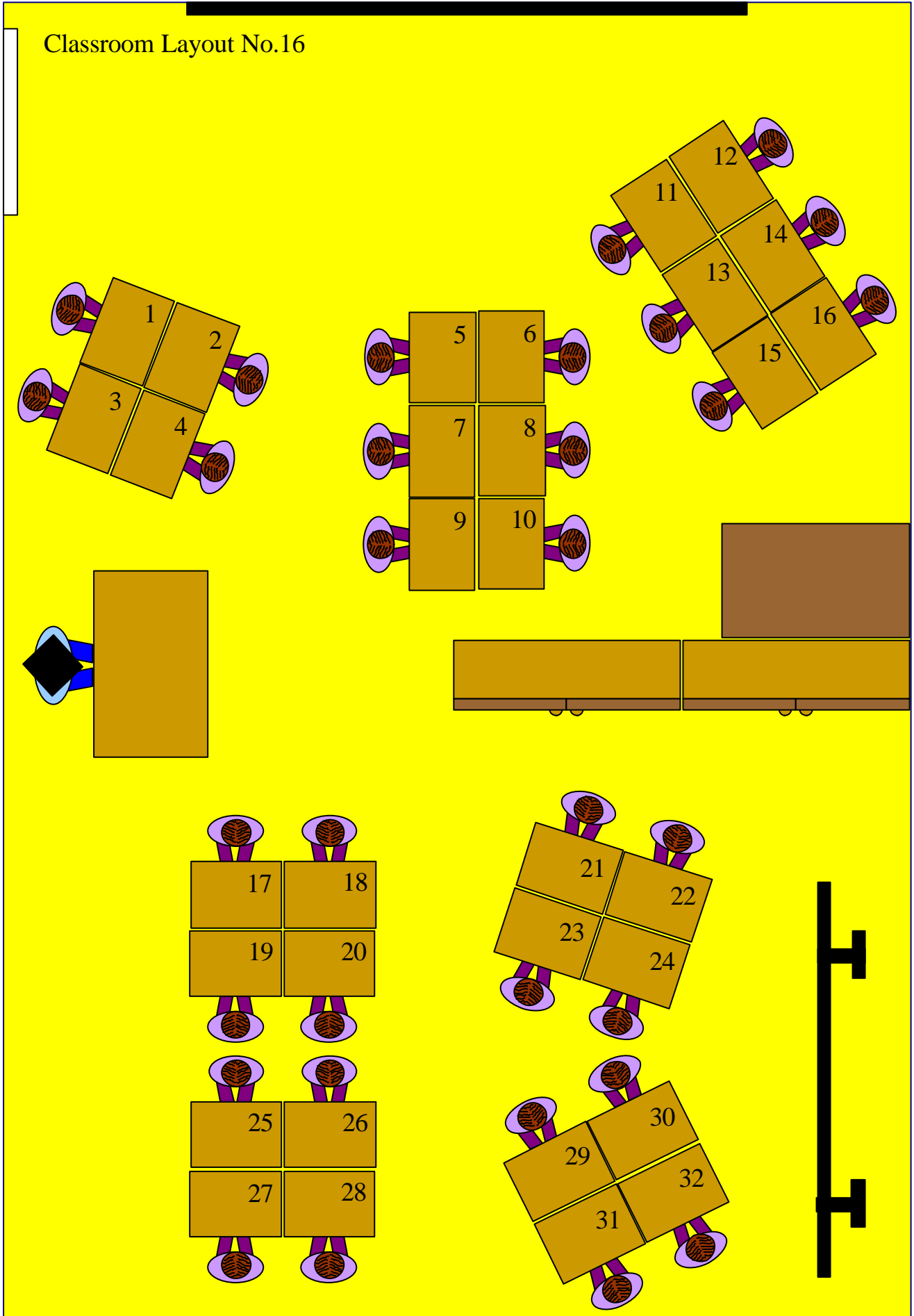


Classroom Layout No.15





Classroom Layout No.16

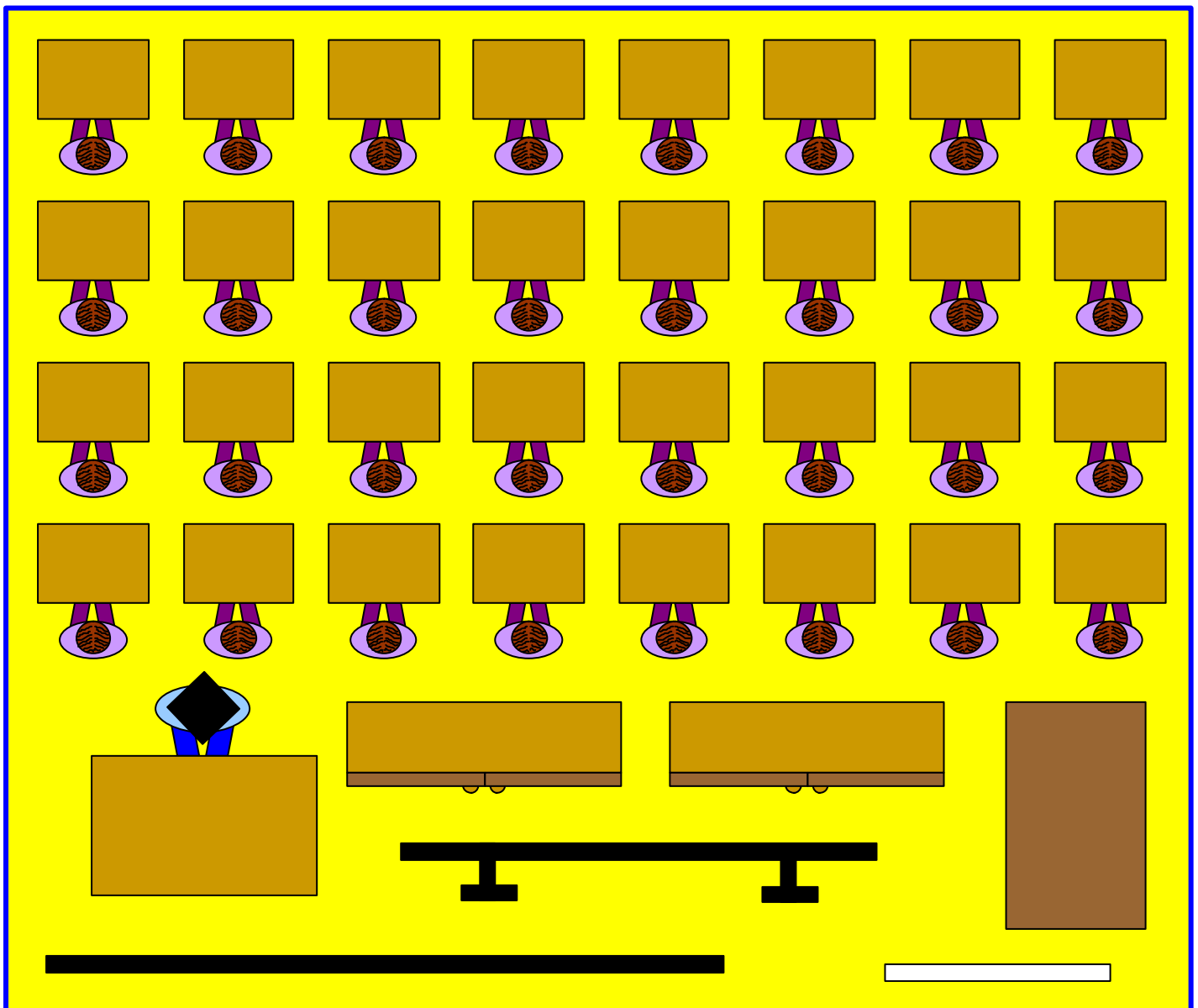


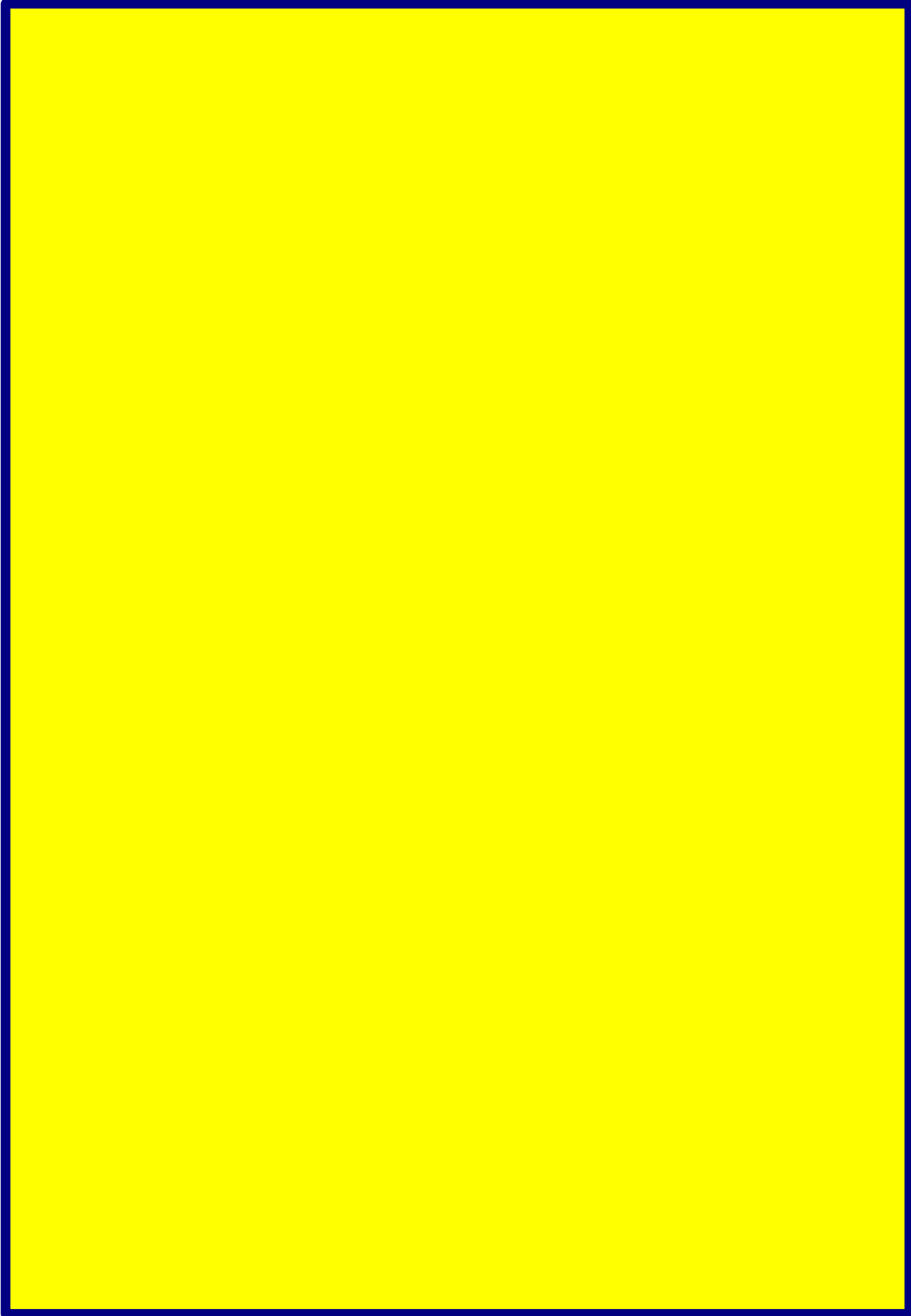


CLASSROOM LAYOUT: CUT AND PASTE TEMPLATE

On this page, symbols are provided for: pupils and desks (32); teacher and desk (1); cupboards (2); display/practical work table (1); wall blackboard (1) and a portable blackboard (1). On the next page is a Classroom Plan. Both pages are Photocopy Masters.

Select as many symbols as wished from the photocopy of this page. Cut these out and arrange them in a suitable layout on the photocopied Classroom Plan. Think about the position of the classroom door (this can be marked with the thin white rectangle) and make sure there is enough room for movement within the classroom. When an arrangement is finalised, paste into position. Make several photocopies and experiment with different layouts.







CLASSROOM LAYOUT: DISCUSSION QUESTIONS

- What are the main features of this layout?
- What are the advantages of this layout?
- What are the disadvantages of this layout?
- What kind of teaching would it be suitable for?
- What kind of teaching would it not be suitable for?
- Would this layout lend itself to cooperative learning? If so, in what way?
- Is there anything unusual or surprising about this layout?
- How easy or difficult is it for students to enter the classroom and reach their places?
- How easy or difficult is it for students and the teacher to move around the classroom? Can, for example, the teacher hand out material easily?
- Are there any blind spots or congestion points? If so, where?
- Do you have any other observations on the layout (e.g. position of cupboards)?
- Would you like to teach in this classroom? Yes or No? Why?